STOCK MARKET ANALYSIS

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Chapter 1: Introduction

*Through this **Summer of Science** report, I wish to cover everything I learned about the Stock Market and convey them in simple words which will be easy for everyone to understand and comprehend.*

Throughout the tenure I used Zerodha Varsity as my base source, but with the exception of a few definitions the entire module is typed by me. The charts are made by using SmartArt in MS Word. The stories are either inspired from various posts on social media or are of my creation.

Let's start with a story.

I bought a Tesla Car 10 years ago and it costed me around $80K.

But my friend on the other hand had bought Tesla stocks worth $5000. At that time, I scoffed at him and said what did it give you to waste money on a blue sheet of paper.

But the tables have turned!

Now after 11 years my car's price is around $20K in the market (Even if it would've been a first-hand model). And now he's sitting upon a whopping $600K amount!

Moral of the story is to keep your money liquid! And by keeping it liquid I mean … **invest it**! So … stock market is the biggest pool of such investors!

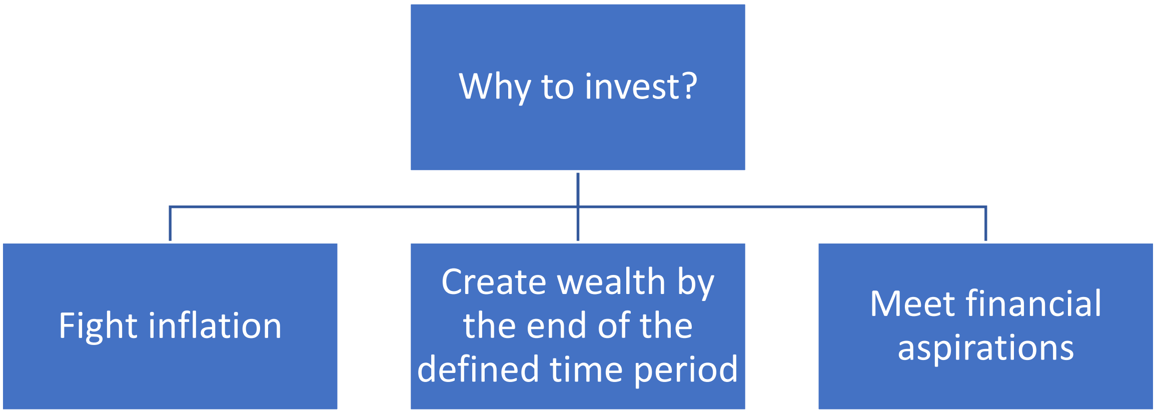
Also note that: all that glitters is not gold. If stock market provided people bumper profits Stock Market must also eat up people's money. Those people aren't rewarded who want to become rich quickly but those who are patient and wait for their fortune to grow gradually.

Let's dive in to see what it really is!

Chapter 2: Investing

To **invest** is to allocate money with the expectation of a positive benefit/return in the future.

In simple words it means to grow your money. But there are 3 primary reasons of why one should invest.



Now we came to know why to invest but now we ask … where to invest?

Now that depends on what suits your risk and return temperament. This is called the **asset class**. It varies from person to person. But there are 4 popular asset classes where you can invest.

- Fixed income instruments
  This process can be considered as simple as a fixed deposit in a bank, you put some amount of money in the bank and the bank pays you interest for keeping the money. This has a low ROI (Return on Investment) of around 8% but that is because the risk of losing money is less too.
- Equity
  Investment in Equities involves buying shares of publicly listed companies. The shares are traded both on the Bombay Stock Exchange (BSE), and the National Stock Exchange (NSE).

Indian Equities have generated returns close to 14% – 15% CAGR (compound annual growth rate) over the past 15 years.

- Real estate
  Real Estate investment involves transacting (buying and selling) land. Typical examples would include transacting in sites, apartments and commercial buildings. There are two sources of income from real estate investments namely – Money through Rent and Increase in value of land as time passes.

- Commodities (precious metals) - Bullion
  Investments in gold and silver are most commonly invested in as their value increases with approximately 8% CAGR.

The technique of allocating money across assets classes is termed as **Asset Allocation**. For a well to do person I suggest him to invest 60% of his amount in Equity, 20% in precious metals, and the 20% in Fixed income investments.

For a retired individual I would suggest him to invest 80% of his saving in fixed income, 10% in equity markets and a 10% in precious metals.

Chapter 3: The Stock Market

Like the way we go to a shop for our daily needs, similarly we go to the stock market to shop (or transact) for equity investments.

Stock market is where everyone who wants to transact in shares go to. Transact in simple terms means buying and selling.

It is the place where people of abundant money (investors) interact with those who are deficit of it (entrepreneurs) in return for profits and running of businesses.

But a stock market is not a physical place it exists in an electronic form.

The two main stock Markets in India are the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE).

The participants in the stock market can be segregated on the basis of their backgrounds.

1. **Domestic Retail Participants** – Indian Citizens

2. **NRI's and OCI's** - These are people of Indian origin but based outside India

3. **Domestic Institutions** - These are large corporate entities based in India. E.g. LIC

4. **Domestic Asset Management Companies** (AMC) - Mutual fund companies such as SBI Mutual Fund come under this

5.**Foreign Institutional Investors** - Non-Indian corporate entities

Now everyone's motive is the same – to make money.

The regulator of Indian Markets is the **Securities and Exchange Board of India** (SEBI). You can assume it as the police of stock market with its work like ensuring fair trading practices, small retail investors interest is protected and large investors with huge cash pile should not manipulate the markets.

Now there are some intermediaries who form a link between you and the stock market.

1. **Stock Broker**
   He is the person who handles your stocks, buys and sells them. He holds a trading license. He also demands a brokerage fee which is normally a percentage of the amount given to him to trade. He controls your trading account where you receive both stocks and digital money.

   There are many apps that allow you to buy and sell and they have a brokerage fee incorporated inside them.

2. **Depository and Depository Participants**

   When you buy a share (a share represents a part ownership in a company) the only way to claim your ownership is by producing your share certificate. These share certificates are stored in a digital vault called DEMAT Account. But these DEMAT Account are only provided by 2 institutions The National Securities Depository Limited (NSDL) and Central Depository Services (India) Limited. These are called depositories.

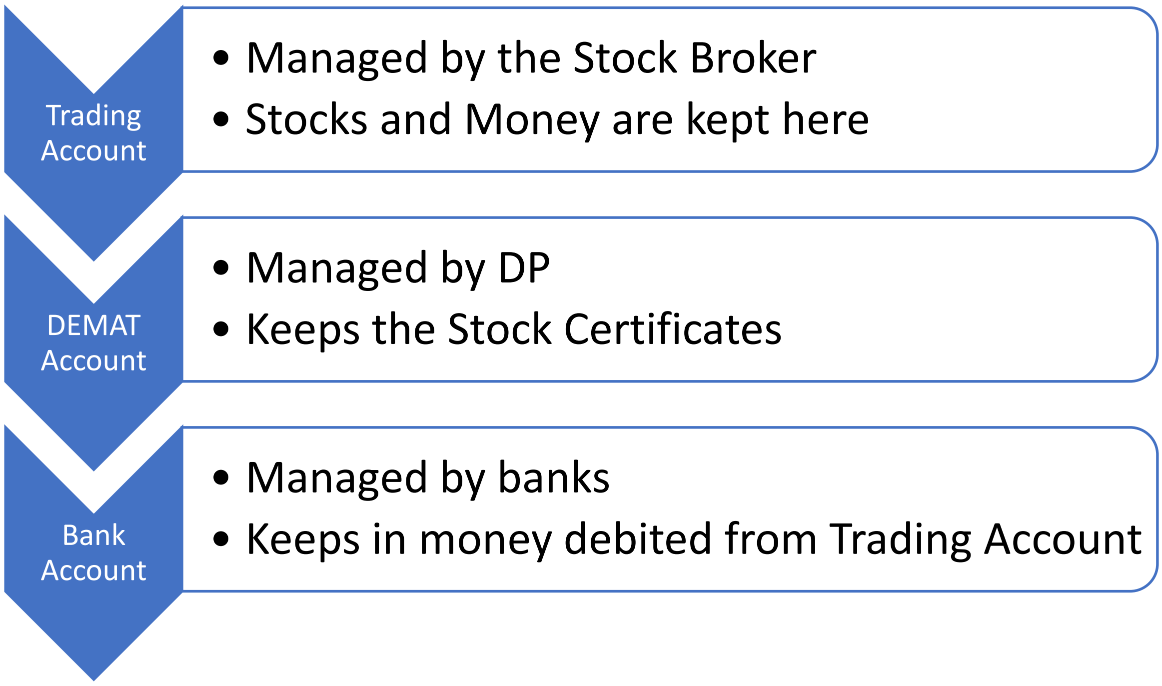
   Now to open a DEMAT account you need to liaison with a Depository Participant (DP). A DP helps you set up your DEMAT account with a Depository. A DP acts as an agent to the Depository.

   Both a Depository and its participants are regulated by the norms of SEBI.

3. **Banks**

   They help in facilitating the fund transfer from your bank account to your trading account and vice versa.

   So far, we have seen 3 accounts.



4. NSCCL and ICCL

NSCCL - National Security Clearing Corporation Ltd and ICCL - Indian Clearing Corporation are wholly owned subsidiaries of National Stock Exchange and Bombay Stock Exchange respectively.

a) Identify the buyer and seller and match the debit and credit process
b) Ensure no defaults - The clearing corporation also ensures there are no defaults by either party. For instance, the seller after selling the shares should not be in a position to back out thereby defaulting in his transaction.

Now how do stocks move in the market?

Let's suppose **Reliance** has a new CEO. So, leadership position has been filled that's why more people will buy stocks of Reliance. If more people buy stocks there will be a demand for it. As demand increases price will proportionately increase.

Now suppose that arsenic has been found in **Maggi** again. So, the Maggi goods will be boycotted. People know that there will be an amount deducted from their share because of no sales so they quickly try to sell it. But buyers won't buy them. So, in order to sell them, the holder agrees to sell it at a lower price. In this way the stock prices fall.

The NASSCOM is considered to be a very powerful organization and whatever they say has an impact on the IT industry. So, their say matters a lot in the stock market.

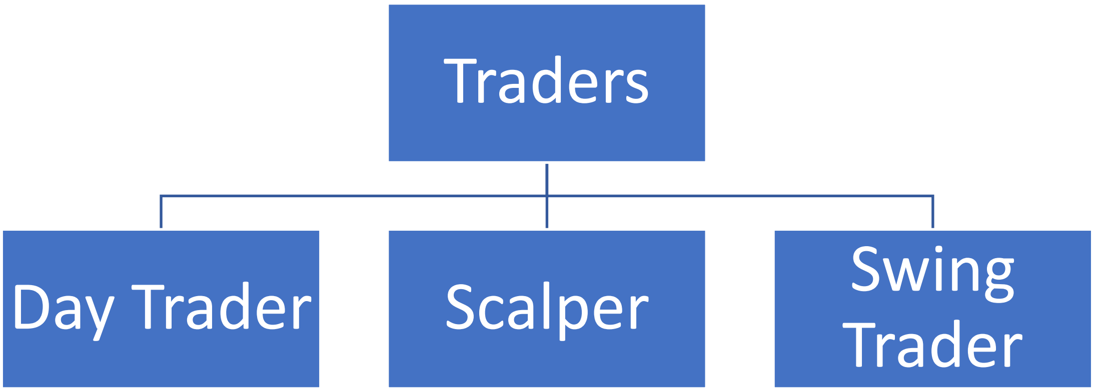
We can generalize that stock prices soar in case of good news or in expectation of good news. The prices drop in the opposite condition.

Now buying a stock means having an ownership of the company. For e.g., if I buy 200 shares of Infosys, I own 0.000035% of Infosys.

Now we decide returns by the CAGR (mentioned above). It is calculated by the formula given below.

$$\text{CAGR} = \left(\frac{\text{Ending Value}}{\text{Beginning Value}}\right)^{\left(\frac{1}{\#\text{ of years}}\right)} - 1$$

There are different types of traders in the market. They are segregated on the basis of the time in which they held a stock.



Day Traders normally buy and sell the stocks within the same day.

Scalpers also trade within the same day but they trade in huge amounts for such a small time being.

Swing Traders normally holds stocks to a matter of days and weeks.

Some of the really successful traders the world has seen are – George Soros, Ed Seykota, Paul Tudor, Michael Steinhardt, Van K Tharp, Stanley Druckenmiller etc.

An investor is a person who buys a stock expecting a significant appreciation in the stock. He waits for his investment to evolve. The typical holding period of investors usually runs into a few years.

There are 2 types of investors.

1. **Growth Investor**
   They identify companies which are expected to grow significantly because of emerging industry and macro trends.

2. **Value Investor**
   They identify good companies irrespective of whether they are in growth phase or mature phase but beaten down significantly due to the short-term market sentiment thereby making a great value buy.

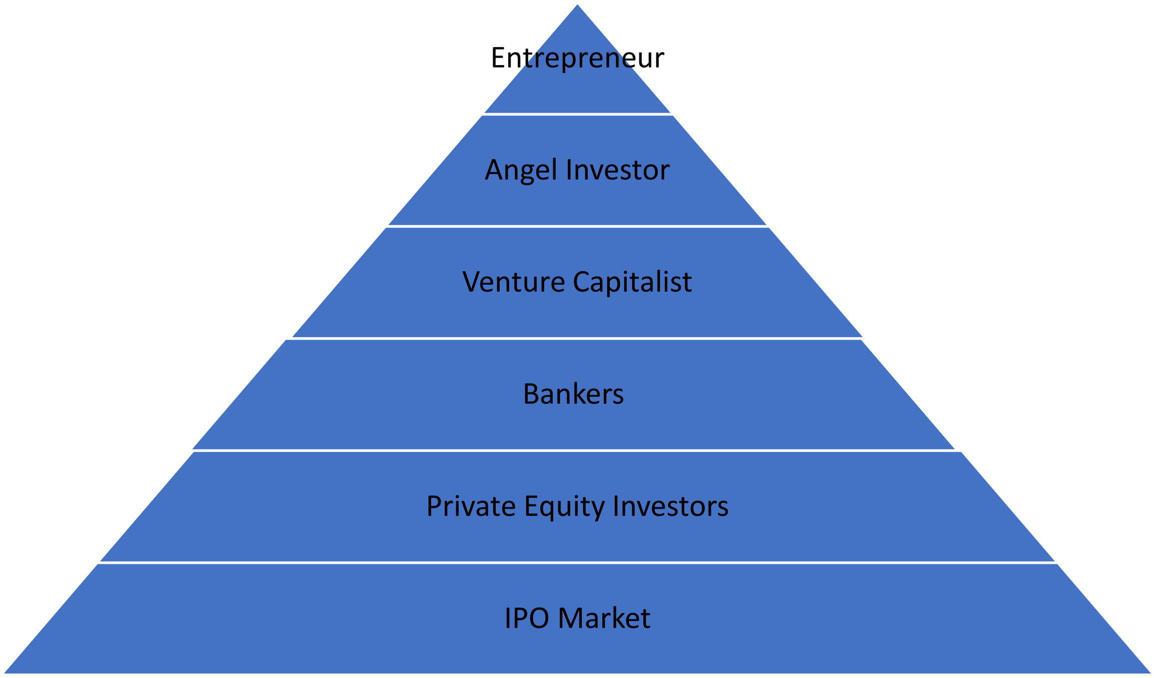
Some of the really famous investors the world has seen – Charlie Munger, Peter Lynch, Benjamin Graham, Thomas Rowe, Warren Buffett, John C Bogle, John Templeton etc.

Chapter 4: The IPO Markets

The IPO Markets are also known as the Primary Markets.

An **IPO** is an initial public offering or stock market launch in which shares of a company are sold to institutional investors and usually also retail investors.

Steps how a company goes public.



Let's show this with an example.

E.g., Assume **Khadim's** a shoe shop is just being started.

So Mr. Khadim (the entrepreneur) comes up with an innovative idea regarding shoes. But he doesn't have the money to start a business. He approaches the **Angel Investors** for a **Seed Fund** to start the shop. Let's say they invested INR 1 Crore. That's the company's **Valuation**.

Majority of shares reside with Mr. Khadim (say 20%). Some % of shares given to Angel Investors (say 5%).

Valuation: 1 crore.

Now, Khadim's is working fine and people are coming to buy shoes. But say he wants the business to expand so he has two choices:

1. Go to a **Venture Capitalist** to get **Series A and B** funding. This is done when company is younger because it doesn't have to show much proof whether it will be a success business.
   Normally, the share provided is higher for a lower sum as company's value is lower than in (2). So, VC may get 10% of shares for 20 crores.
   Valuation: 200 crores.

2. When company has established itself better it will go to a **Bank** for **CAPEX** (Capital Expenditure) Funds. Here it will have to take loans keeping a % of company's shares as collateral. Now the company is continuously growing. The bank may receive 10% shares at 100 crores.
   Valuation: 1000 crores.

Investments by both Venture Capitalists and Bank are much pricier so the company (not yet large to be public) can go to **Private Equity Investors** (from the stock market). (Say 20%)

When the company does not want to rely on any source if it has grown too big to be managed by PE Investors and Banks, they go open to the public by offering all the remaining shares.

(100-20-5-10-10-20= 35%)

Assume that 10,00,00,000 shares are in total. In the start, each share costed INR 0.1 and now each share costs INR 500.

Valuation: 5000 crores.

Net worth of Mr. Khadim: 1000 crores.

When the company goes public the holders can sell it in the market and find another place to invest. So more than 3.5 crore shares can also be seen in the market.

Of course, this is just a case study and chances of a company growing so big is very less compared to so many in real life.

After this a number of processes need to be done to make it an IPO Company.

1. Appoint a **merchant banker** - To do all the tasks below.

2. Apply to SEBI with a registration statement - The registration statement contains details on what the company does, why the company plans to go public and the financial health of the company. It needs a green signal from SEBI.

3. Draft Red Herring Prospectus (**DRHP**) - If the company gets the initial SEBI nod, then the company needs to prepare the DRHP. A DRHP is a document that gets circulated to the public. It contains:
   - The estimated size of the IPO
   - The estimated number of shares being offered to public
   - Why the company wants to go public and how does the company plan to utilize the funds along with the timeline projection of fund utilization
   - Business description including the revenue model and expenditure details
   - Management Discussion and Analysis – how the company perceives the future business operations to emerge
   - Risks involved in the business
   - Management details and their background

4. Market the IPO - This would involve TV and print advertisements in order to build awareness about the company and its IPO offering. This process is also called the IPO road show.

5. Decide the price band between which the company would like to go public.
6. **Book Building** - To officially open the window during which the public can subscribe for shares.

7. **Listing Day** - This is the day when the company actually gets listed on the stock exchange. The listing price is the price discovered through the book building process. And the stocks are sold.

CHAPTER 5: MARKET INDICES

Indices are bench markers. The two main market Indices in India are:

1. **S&P BSE Sensex**: Of the Bombay Stock Market

S&P stands for Standard and Poor's, a global credit rating agency.

2. **CNX Nifty**: Of the National Stock Market

'CNX' stands for CRISIL and NSE. It is maintained by India Index Services & Products Limited (IISL).

So, what are Market Indices?

An index acts as a barometer of the whole economy. An index going up indicates that the market participants are optimistic. Similarly, an index going down indicates that the market participants are pessimistic.

We assign weights to each stock to the index. The Indian stock exchange follows a method called **free float market capitalization**. The weights are assigned based on the market capitalization of the company, larger the market capitalization, higher the weight. It is the product of total number of shares outstanding in the market and the price of the stock.

ITC, HDFC, ICICI and Reliance have the largest weightage in Nifty Index.

I want to build portfolios of my experience in the stock market. So, on writing that I invested in an Index stock will automatically put a lot of stocks under my portfolio.

CHAPTER 6: VOCABULARY OF TRADERS

- **Bullish Market**
  A bull market is the condition of a financial market in which prices are rising or are expected to rise. It is a market trend.
- **Bearish Market**
  A bear market is the condition of a financial market in which prices are rising or are expected to rise. It is a market trend.

  Note: The term "bull and bear market" is most often used to refer to the stock market but can be applied to anything that is traded, such as bonds, real estate, currencies, and commodities.

- **Sideways Market**
  If the stock prices are stable and not changing by a significant amount. It is a market trend.

- **52 week high / 52 week low**
  The maxima and minima of the stock price in the year.
- **All time high / All time low**
  The maximum price of the stock and the minimum price of the stock since the day the company entered the stock market.

- **Short Trade (or shorting)**
  It is buying a stock at a period of time and selling it quickly with the hoping that the prices have increased. Or selling a stock at a time hoping the prices have decreased.

- **Long Trade (or going long)**
  Holding a stock for a long period of time in the hope it will yield larger results in future.

- **Face Value of the Stock**
  It is an indicator to the fixed denomination of a share. Usually when dividends and stock split are announced they are issued keeping the face value in perspective. It is the original cost of the stock, as listed on the certificate. Also called **par** value.

  $$Annual\ dividend = (dividend\ rate) x\ (par\ value)$$

- **Market Value of Stock**
  Also known as Market Cap. It is calculated by multiplying a company's outstanding shares by its current market price.
  Difference between the two:

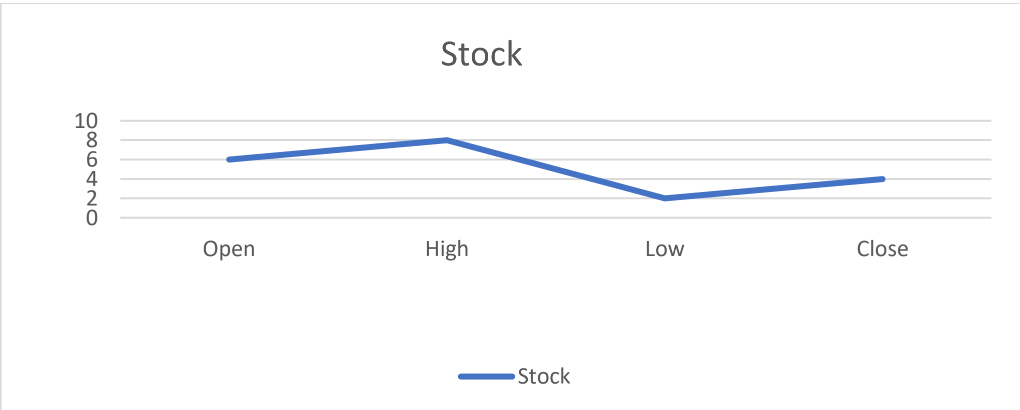
Face Value of Share	Market Value of Share
• The face value of the stock at the time of issue is the nominal value or market value of the stock. It is the valuation on the balance sheet of a company's common stock and is calculated during the initial phases of the transaction.	• The market value per share is the stock price present value. The price at which the stock is valued by the market. It is the selling price of the stock over which we purchase and sell our stock. This is therefore the most important stock indicator when it comes to share trading.
• Face Value = Equity share capital / Number of shares outstanding	• Market Value = Current Stock Price * Number of shares outstanding
• Face value seems more of a theoretical static figure.	• Whereas market value is more about liquid and real numbers.

- **Squaring off**
  Means closing an existing position.

When you are	Square off position is
Long	Sell the stock
Short	Buy the stock

- **Intraday position**
  It is a trading position which you initiate with an expectation to square off the position within the same day.

- **OHLC**
  It means '**Open** price **High** price **Low** price **Close** price' in a timespan.



CHAPTER 7: REVISED PLAN OF ACTION

I plan to complete Technical and Fundamental Analysis by the second half of the tenure.

In the 5th and 6th weeks I will refer:

https://zerodha.com/varsity/module/technical-analysis/

In the last two weeks I will complete:

https://zerodha.com/varsity/module/fundamental-analysis/