Stock Market Basics

What is the right amount to invest every month?

Level: Beginner

Amount you earn every month = A

Expenses every month = e*A e: proportion of expenditure

Emergency fund (Savings account) = 6*e*A

Money left after building emergency fund = x (say)

Invest x → Long term investments (80%) + Trading (20%)

Points to remember:

- Investment is different from Trading.
- Your long term investments should be aligned with your 5-10 year financial goals.

How do you start picking stocks to invest/trade?

ANALYSIS! Analysis could be of two types: **Fundamental Analysis** and **Technical Analysis**.

Let's start simple. As an investor, to make an intelligent decision about the choice of stocks, you need to be confident that the company will do well in the next 5-10 years. A good way to start understanding the state of a company is by looking at its financial reports. For a public limited company, it's financials are easily available. The following is what you should be familiar with:

- Company's assets
- Company's cash flow
- Company's debt
- Company's revenue

- Company's P/L

The above can be thought of as the fundamental analysis of a company.

On the other hand, technical analysis is the study of demand and supply. It analyses only price & volume of a stock.

If you have an intent to sell within a short period of time, that's the Trading perspective. Broadly speaking, a long term investor performs a fundamental analysis of the company whereas a short term trader performs a technical analysis.

Fundamental Analysis

- Analyzing company's financials.
- Predominantly used for long terms investments.
- Finding an undervalued stock to invest for long term.
- Requires business domain knowledge.

Technical Analysis

- Analyzing company's stock price.
- Predominantly used for short term trading.
- Finding repetitive patterns to create trading opporunity.
- Does not require business domain knowledge.

Why do stock prices move?

- Demand v/s Supply. All price is market discovery based on demand and supply. If the demand for a stock is more, the price goes up and vice versa.
- Herd mentality. Sab khareed rahe hai, toh mai bhi khareedunga. Which is again very much correlated with demand and supply.

Conclusion?

Learn how to fly before you start flying a plane. Do your fundamental or technical analysis and once you have understood and are confident, INVEST. Do not fall into the tips scam where you may get from messages or friends or analysts trying to "help" you make money. They use decision trees to capture their customer base. Suppose they have 100 people whom they start giving free tips. To 50 they ask to buy and to remaining they ask to sell. Because the market can either go up or down(2 choices), 50 of them will always end up happy. This process continues for two more iterations after which the customers remaining are willing to pay hefty amounts to continue receiving further tips. Don't fall into this. Do your own research. Educate yourself.

How to start trading?

First things first. You need accounts. Two accounts to be specific.

- **Trading account**. A trading account acts like a link between demat account and savings bank account of an investor. When an investor wants to buy shares, he places an order through his trading account. The said transaction goes for processing in the stock exchange. Upon execution, the required number of shares get credited into his demat account and a proportionate sum gets deducted from his the bank account.
- **Dematerialized(Demat) account** which is just the digital version of physical share. Demat account is your own digital share holding locker.

> 💡 Trading time: 9:15 am - 3:30 pm

Opened my accounts. Now what? Systematic v/s Discretionary trading

1. **Systematic trading**: - Systematic trading (also known as mechanical trading) is a way of defining trade goals, risk controls and rules that can make investment and trading decisions in a methodical way. We follow a system.
2. **Discretionary trading: -** Trading on your discretion. In other words, trading based on your gut feeling. BUT,

   > Your gut may not always be right.

   You need years of experience to build the intuition. The key here is also risk and money management.

SYSTEMATIC

- Quantified rule based entry and exit.

DISCRETIONARY

- Gut based entry and exit.

- No emotions involved.
- No need to monitor the market all the time.
- No need of years of experience to become profitable.
- Can be automated.

- Involves human emotions.
- Need to monitor the market.
- Need years of market experience.
- Cannot be automated.

Personally, systematic trading is what I would opt and try to incorporate.

Understanding Systematic Trading

Key idea? Creating a system where if you are winning, you win 100 but if you are losing you are not losing more than say 25. You need to look at your profit from the perspective of the entire system and not just one or two trades.

You wouldn't start with your life savings to invest into a business you have no experience with. In the same way, start with extra money to build your trading system. Figure out which variables work and scale slowly just like a business.

It's Machine Learning baby. Create a system based on analysis and experiments. Back-test it on the past data and see if it would have generated profits. Launch and deploy!

Remember that all your system need to do is to keep your chances of winning at say 51% and you'd be still making money over a long period.

Making a trading system

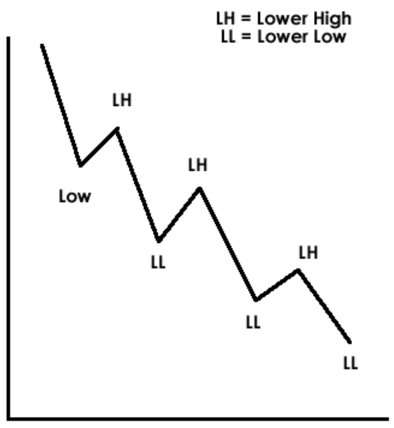
1. Perform **technical analysis**. Study price movements.
2. Build a hypothesis based on the conclusions of technical analysis.
3. Test your hypothesis.

Technical Analysis

Technical analysis is the study of price and patterns. It analyses the past and doesn't predict the future.

- **History TENDS to repeat itself**. For example, AC prices are high in summer and low in winter. Even as a herd you wouldn't buy an air conditioner in winter when the price is low. It's only when you experience the heat that you start thinking about purchasing an AC. A consumer wouldn't use the low prices in winter to buy, a trader would. Even as herds, greed, fear etc. tend to repeat themselves in price action.

- **Market trends**. Fear and greed manifests itself into three kinds of trends: *Uptrend*, *Sideways*(plateau), *Downtrend*.
    - When the market is going up, the newer lows are higher than the old lows. A high low, as you can see in the image below. Higher lows indicate an uptrend.
    - In contrast, when the market is going down, the newer highs are older than the older highs. A lower high, as you can see in the image below. Lower highs indicate a downtrend.



- **Markets discount everything**. If there is some news or analysis that the market knows will happen, it'll already be reflected in price. Prices change if a group of big investors know something about the company that you don't. If you hear a news, that means it has already been there for a while. DON'T FOLLOW THE NEWS, FOLLOW THE PRICE.

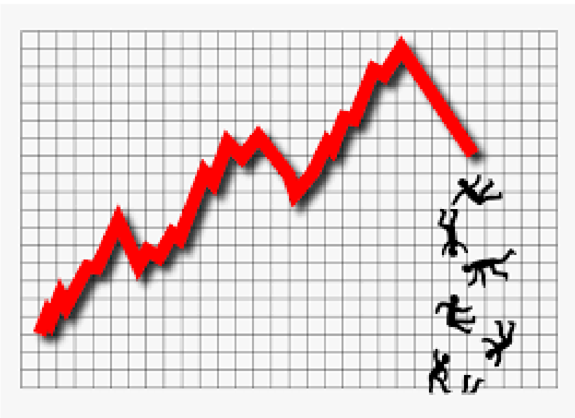
- **How is more important than why**. The price will reveal information much before than anything else will.

Bullish v/s Bearish

- A bull market is a market that is on the rise and where the economy is sound; while a bear market exists in an economy that is receding, where most stocks are declining in value.
- In a bull market, there is strong demand and weak supply for securities. In other words, many investors wish to buy securities but few are willing to sell them. In a bear market, the opposite is true: more people are looking to sell than buy. The demand is significantly lower than supply and, as a result, share prices drop.
- A bear market can be more dangerous to invest in, as many equities lose value and prices become volatile.
- In a bull market, the ideal thing for an investor to do is to take advantage of rising prices by buying stocks early in the trend (if possible) and then selling them when they have reached their peak. During the bull market, any losses should be minor and temporary; an investor can typically actively and confidently invest in more equity with a higher probability of making a return. In a bear market, however, the chance of losses is greater because prices are continually losing value and the end is often not in sight. Even if you do decide to invest with the hope of an upturn, you are likely to take a loss before any turnaround occurs. Thus, most of the profitability can be found in short selling or safer investments, such as fixed-income securities.

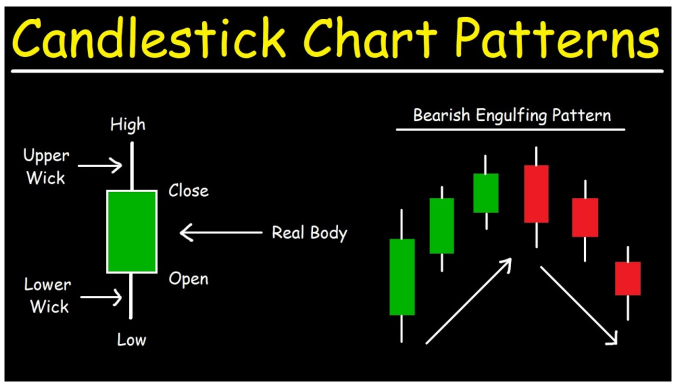
Charts used for analysis

Line Chart



- A line chart is a way of visually representing an asset's price history using a single, continuous line.
- Because line charts usually only show closing prices, they reduce noise from less critical times in the trading day, such as the open, high, and low prices.
- A key thing to note is that line charts may not provide enough price information for some traders to monitor their trading strategies. Some strategies require prices derived from the open, high, low and close (OLHC).
- This is where candlesticks come.

Candlestick



- Candlesticks are useful when trading as they show four price points (open, close, high, and low) throughout the period of time the trader specifies.
- Just like a bar chart, a daily candlestick shows the market's open, high, low, and close price for the day. The candlestick has a wide part, which is called the "real body." This real body represents the price range between the open and close of that day's trading. When the real body is filled in or black, it means the close was lower than the open. If the real body is empty, it means the close was higher than the open.
- Traders can alter these colors in their trading platform.

Candlestick Patterns

Support and Resistance

- Technical analysts use support and resistance levels to identify price points on a chart where the probabilities favor a pause or reversal of a prevailing trend.
- Support occurs where a downtrend is expected to pause due to a concentration of demand.
- Resistance occurs where an uptrend is expected to pause temporarily, due to a concentration of supply.
- Market psychology plays a major role as traders and investors remember the past and react to changing conditions to anticipate future market movement.
- Support and resistance areas can be identified on charts using trendlines and moving averages.

Breakouts, Breakdown , Polarity, Double top and down patterns

The Principle of Polarity states that once a **Resistance** (Support) level is breached, it changes its nature and becomes **Support** (Resistance) the next time it is approached. This happens due to change in Demand and Supply.

The anatomy of trading breakouts.

Understanding trading breakdowns.

Double top and bottom patterns are chart patterns that occur when the underlying investment moves in a similar pattern to the letter "W" (double bottom) or "M" (double top).

For a DOUBLE top, the resistance area must be touched twice by the stock and for a DOUBLE bottom, the support area must be touched twice. Double tops can be rare occurrences with their formation often indicating that investors are seeking to obtain final profits from a bullish trend. Double tops often lead to a bearish reversal in which traders can profit from selling the stock on a downtrend. A double bottom will typically indicate a bullish reversal which provides an opportunity for investors to obtain profits from a bullish rally.

Indicators

Analyzing demand and supply using the above techniques leaves room for a lot of ambiguity. For example, I may draw the support line differently and you may do it differently. To get more "exact" things when analyzing stocks, we use Indicators. Market indicators are quantitative in nature and seek to interpret stock or financial index data in an attempt to forecast market moves.

1. **Moving Average**: The reason for calculating the moving average of a stock is to help smooth out the price data by creating a constantly updated average price. By calculating the moving average, the impacts of random, short-term fluctuations on the price of a stock over a specified time frame are mitigated.

- A simple moving average (SMA) is a calculation that takes the arithmetic mean of a given set of prices over the specific number of days in the past; for example, over the previous 15, 30, 100, or 200 days.
- Exponential moving averages (EMA) is a weighted average that gives greater importance to the price of a stock in more recent days, making it an indicator that is more responsive to new information.
- Moving averages are a totally customizable indicator, which means that an investor can freely choose whatever time frame they want when calculating an average. The most common time periods used in moving averages are 15, 20, 30, 50, 100, and 200 days. The shorter the time span used to create the average, the more sensitive it will be to price changes.
- A rising moving average indicates that the security is in an uptrend, while a declining moving average indicates that it is in a downtrend. Similarly, upward momentum is confirmed with a bullish crossover, which occurs when a short-term moving average crosses above a longer-term moving average. Conversely, downward momentum is confirmed with a bearish crossover, which occurs when a short-term moving average crosses below a longer-term moving average.
- Exponential moving average is a sub category which gives more weightage to the recent price of the stock compared to the past prices.

2. **Relative Strength Index (RSI):** It is intended to chart the current and historical strength or weakness of a stock or market based on the closing prices of a recent trading period. Measures the strength of the stock relative to itself. If it was strong before, is it still strong?
    - The RSI is most typically used on a 14-day timeframe, measured on a scale from 0 to 100, with high and low levels marked at 70 and 30, respectively. An asset is usually considered overbought when the RSI is above 70% and oversold when it is below 30%.

Market Watch

- In most cases you should check NSE, it has more liquidity than BSE.
- The percentage below every stock on the platform reflects the change in price on yesterday's closing price.
- Market Depth shows the orders and bids that are happening.
- All broker platforms have pretty much the same buy/sell window.
- Intraday is also called Margin Intraday square-off. Most brokers will allow you to trade more than what you have in your account. That's what margin means.
- Long-term or CNC is when you take the delivery of the stock into your dematerialize account with the intention of holing it for a longer time.
- You can specify a price and the transaction will not be executed until the stock reaches that particular price. That's called a **limit order**. Basically, in a limit market, you are telling the broker to buy only if the price goes below the specified value.
- **Market order** is when you want to purchase at the current cost of the stock. Toggle to market radio button.
- SL-M or **Stop Loss Market** order is where you specify a lower bound to your stock price in which case if the stock touches the specified price bound, the broker automatically sells the stocks allowing you to exit without a substantial loss.
- Buying first and selling when the markets go UP → Long (Make profit)

  Selling first and buying when the markets go DOWN → Shorting (Make profit)

  Shorting can only be done in MIS unless you are doing options or futures. Shorting is creating profits when markets are falling.
- There is a **back office**(called console in kite) has contract notes, brokerage charges, stamp duty, other taxes etc. Keep track!

Styles of trading

Asset Based

- Stock Market vs Commodities
- There can be crypto traders, commodity and currency traders, equity or intraday traders or, futures and options trader.
- Commodities and Currency are traded in the futures and options market.
- For a traders, all instruments are assets. They all have charts and they all can be tested.

Time Frame Based

a) Short time frame

- High Frequency Trading(HFT) - 100s of trades every second or minute. Something that HFT firms do. It's based on algorithms and automation
- Scalping - Lots of trades manually. A scalper would trade and try to enter or exit every few minutes in the hopes of making a profit.
- Intraday - Any number of trades. Enter after the markets opens and exit before the markets close the same day.

b) Longer time frame

- Swing trade - Few trades (1-3) every week.
- Investing - Few trades meant for long term investment.

Finding your own style

Trading has four main styles: scalping, day trading, swing trading, and position trading. The difference between the styles is based on the length of time that trades are held. Scalping trades are held for only a few seconds, or at most a few minutes. Day trades are held a few seconds to a couple of hours. Swing trades may be held for a few days. Position trades are held from a few days to several years.

- Scalping is a rapid trading style best suited to traders who can make instant decisions.
- Day trading is for traders who prefer to start and complete a task on the same day.
- Swing trading is for those at ease holding trades overnight.
- Position trading is a long-term trading style for those with patience and confidence in their choices.

Trading System

1. Strategy Hypothesis: Define your entry strategy based on observations.
2. Risk Management: Define your exit strategy for both profit and loss situations. You want accuracy to be > 51%
3. Code and automate to take emotions out of the system.
4. Have faith.

   Example (Swing Trading Strategy) -

   - **Risk to reward ratio required = 1:2**
   - **Trading NSE 100**
   - **Buy rule - Stock hits a 52 week high at Friday 3:00 pm**
   - **Stop Loss - 30% lower than the high price.**
   - **Profit Target - 60% higher than the high price.**
   - **Trailing Stop Loss - Triggered when price hits 30% above the buy price. Update stop loss to 30% below the new price.**
   - **No of holdings - 20-25**