



## The Need for Analysis – Is Stock Market trading sheer dumb luck? / a gamble? Or a very serious business?

One of the peculiar things about stock market Investing is that all you hear is rags-to-riches stories (or vice-versa), hardly any about market participants who have been consistently making money. Maybe that is not exciting enough for people to talk about.

Now let's look at three standard cases we always hear about.

- > Mr Darshitbhai Patel. In the 1980-1990s, he bought Hindustan Unilever, Asian Paints and Reliance Industries through initial public offers. Now 70 years old, the wealth he created through these stocks helped him marry off his three daughters and build start-up capital for his son. He still has many other IPO-invested junk papers in his cupboard. He continues to invest small amounts infrequently, but his recent investments have not been that great.
- > Mr Amarbhai Jain. He made a lot of money with 5-10 baggers in the tech boom, buying Infosys, Satyam, HCL Tech initially but ended up losing a fortune in Pentasoft and Himachal Futuristic, which he still holds seeing them first growing five times, then come down to less than 5% of the initial cost. He still has minuscule quantities of Infosys and Satyam, the former back above the 2000 boom days, the other still in deep trouble. He still trades in the market looking for the next big thing.
- > There is a trader Ashvin-bhai, and another investor, Kamleshbhai. Both have been compounding their money at 15% or more p.a for the last many years, one by trading and the other by value investing but they don't make exciting stories so we never hear about them.

There may be many such cases but the above two are those I have heard of.

Now would you consider Mr Darshit to be a visionary who could see Reliance Industries become a conglomerate with businesses such as petrochemicals, telecoms, finance, media,

etc. Did he visualize that Asian Paints would turn into one of the well-managed companies, compounding earnings over decades?

Also would you consider Amar Jain, who picked 10 baggers in Infosys, Satyam and HCL Technologies and later ended up being killed by duds such as Pentasoft and Himachal Futuristic.

In both the cases, there could be lots of justifications for Darshitbhai being a better investor but in terms of preparation both of them did not put in much effort. Both were long-term investors. Amar Jain unfortunately allocated a good amount to Pentasoft and such dud companies but so did Darshitbhai. Fortunately for Darshitbhai, three of the stocks kept on compounding over the years in such a manner that it could offset the others.

Many questions raised.

In the good old 1980s everything had to be sold at paid-up values. Darshitbhai was one of the few who had the money and knew about IPOs.

Selling shares in 1980s was such a lengthy process that people would withdraw only the needed amount.

In the good old days of 1980-1990s, share certificates would be kept in a cupboard; then they were shifted into a demat account.

The boom of 2000 was so sudden and quick and the buzz of a new economic order led to hype. The new economy is in now well in place; just that nobody then suspected it.

The 1980-1990s led to a new economic revolution in India, which even the Indian think-tank or government did not visualize, but the severity of the balance-of-payments crisis in 1990s led to reforms ☺

I missed Ashvinbhai and Kamlesh-bhai. Did you even realize that? Well, if you did, congratulations but I can't write more on them as I haven't had many conversations with the above two boring characters.

Darshitbhai was lucky as he utilized the wealth created for other purposes or he might have lost it by keeping it in the market the way he is now doing.

I could write a book about the above two cases reasoning for and against. But the end result would be that you would call both of the above players to be either lucky, Gamblers or

investors who had timed it differently as both of them have not been doing great with their present investments.

The above article is just a big piece of discussion or gyaan which will take us nowhere even after a few hours debating it. But let's look at one simple equation, which I believe is the mantra consistent in markets.

Preparation + Opportunity + Luck = Success.

If either of the three is missing, you may be successful but not for long.

The problem with markets is that people believe there is always an opportunity as a stock moves from 50 to 100 or even 500 and back to 50. It's just that one has to be lucky to be on the right side .

So either you have to be as lucky as Darshitbhai or just be half Amar Jain (yes till he sold Infosys), who were investors at such opportune times or prepare yourself for the opportunities in the market.

The aim of this book is to enable to you to prepare yourself to face the cycles in the market, which would keep throwing up opportunities in the next many years.

Oops, why did I miss luck? Well, if you were to believe that it's only luck that would bring you success; you would not have bought this book. Rather, you would have bought some long-dated options every week or a lottery ticket daily.

If you are well prepared, even if you are not very lucky the success ratio will just be a little less than the one who is lucky.

Fortune favors the brave

## **Introduction to Technical Analysis**

### **Oldest Form of Analysis**

For me the knowledge of finance was related to Sensex, Dalal Street and a few more words I had heard while reading newspapers. Luckily during the vacations of my third year engineering went across to my uncle Mr N S Fidai to make me understand some bit of Equity Markets as I had a lot of time and nothing to do. The journey to technical analysis started from there and now we are both part of the same company Analyse India Market Solutions Private Limited.

My initial tryst with technical analysis was on the subject of Fibonacci Series and the Golden Ratio. Although the topic was part of a technical paper presentation which lead me to applications of 61.8% retracement in technical analysis. Since then every day has been a learning experience and it's humbling to see it working in such a brilliant manner.

With so many number of business channels and sudden awareness of technical analysis has made people believe that this seems to be a new fad used to speculate in markets.

Following are some known and unknown facts about Technical Analysis.

- ➔ The first instances of speculation rules came in Joseph de la Vega's accounts of the Dutch markets in the 17th century.
- ➔ The other instances came in the recording of price data by Munehisa Homma who was a rice merchant in 1724-1803. This evolved into candlestick techniques and now called as Japanese candlestick which is one of the most used charting tools.
- ➔ The major contribution to technical analysis came from the journals of Mr Charles Dow who was an investigative reporter – business and finance. His articles in the Wall Street Journal between 1899-1902 which were later published in a new volume "The ABC of Stock Speculation." By his good friend. A footnote in this mentioned about Dow theory.
- ➔ The Dow Theory was taken ahead by William P. Hamilton who was the next editor who later published his addition to the Dow Theory.
- ➔ There were many contributors who have tried to complicate or simplify technical analysis.

What we get from the above records is Technical Analysis is 200 years old and written records start in detailed from the articles of Mr Charles Dow in 1900. Also the US stock index is called Dow Jones and some more indices have names given by Technical Analysts.

The most known book on Fundamental Analysis came in 1932 Benjamin Graham. Although accounting as a subject is very old but a core idea of fundamental investing came much later. We can fairly assume that Technical Analysis is the oldest form of analysis for equity markets.

### **Technical Analysis – Assumptions**

The classically known assumptions are as below.

- 1) History repeats itself.
- 2) Prices move in trends.
- 3) Market Action discounts everything.

### **History repeats itself.**

In a very simple sentence it implies human behavior will not change and commit to similar sentimental high lows over and over again. Pride, greed, hope, anger, sadness and ego are factors that affect market in a way similar to the way it does to our normal lives. Even though we have been through various recessions, depressions or scams we still continue to experience the same albeit in a different manner.

*“The future is the past returning through another gate” - Arnold H. Glasgow*

One of the simplest examples for Indian Equity Markets is this classically 8 year cycle of scams in India.

Harshad Mehta – 1992 , Ketan Parekh – 2000 and Ramalingam Raju 2008. The systems have become much better over the last 20 years in India but we may still be prone to similar scams in the future. The common quote in Indian markets which says start selling stocks when your panwala talks about the boom in Stock Markets. For now in May 2012 I hear panwalas stock about USD-INR and the bad condition of equity markets.

### **Prices move in trends**

If you consider that Sensex at 16200 or Nifty at 5000 is a random number and the next number seen 3 months later of 18000 and 5500 is a random movement , in that case there is no need to read ahead as the purpose of technical analysis to catch trends at the earliest and ride them to the fullest. All through the book one of our major aims would be on how to identify trend reversals and existing trends.

Newton’s first law of Motion “An object at rest stays at rest and an object in motion stays in motion with the same speed and in the same direction unless acted upon by an unbalanced force.”

So the same way we assume that a trend remains in force till we don’t see a trend reversal which has enough force to change or stop it. This concept was very well explained by Dow in his articles and is now followed as Dow Theory. There can be three trends – Upwards, Sideways and Downwards.

Look at this chart of Power Finance Corporation how both uptrends and downtrends remained in force for long periods.



### **Market Action discounts everything**

The technical analyst assumes that the stock price of a security reflected on the exchange at any time reflects the true value of the security. This means that the security's price has adjusted itself by incorporating all the information that could affect the price of the stock.

Market prices are governed by demand and supply. Simply put an increasing demand should lead to higher prices and vice versa. Circumstances may change but the basic economics of demand-supply dynamics remains the same and leads to price trends and this is what a technical analyst should be focused at.

The simplest rule here is – A Technical Analyst should avoid the question WHY and focus on WHAT is the information (charts) in front of him to make conclusions.

In the early stages of a trend reversal the market rarely knows why is the market acting in the particular way. The simplistic approach of accepting the importance of rate or as said in chaste gujarati– “Bhav Bhagwan che” makes the analyst take unbiased decisions.

### **Applications**

Technical analysis is applicable to stocks, indices, commodities, futures or any tradable instrument where the price is influenced by the forces of supply and demand. Majority of the commodities, indices and future contracts are highly liquid and ownership is widely distributed across market participants, which clearly indicates that the price of those instruments is influenced only demand and supply. At the same time one needs to be careful with equities or thinly traded commodities which may be controlled only by a handful of participants. In simpler words technical analysis may not necessarily work with micro cap companies and penny stocks which are controlled and operated by a handful of holders.

### **How efficient is Efficient Market Theory**

Efficient Market Hypothesis says that there can be no edge in the market, that investors are all perfectly rational, and all investors working off public information can't profit except from inside information (and even then, maybe not), and that all stocks are equally well priced. There are various degrees of strictness of the theory and prices are random. This theory gained further popularity after the publishing of the book A Random Walk down Wall Street. As per the book technical analysis and fundamental analysis is a waste of time, there is no way to beat the market returns and buy and hold is the best strategy.

The biggest problem with the theory is that a market governed by emotions of humans is supposed to be rational and efficient. Do you think you as a human always take rational decisions?

The efficient market theory can be debated and argued for not being efficient but the biggest conclusion to take is that markets and participants digest the information and try to create a price which tries to incorporate greed and fear involved. Such efficiency in the market cannot be created in few moments and such process of normalizing will create many opportunities for us.

### **Is Taleb right – Everything is random**

One of the most important books to read by any one investing/trading in equities is to go through Fooled by Randomness – Nassim Nicholas Taleb. All through the book there are numerous examples to how past records may not necessarily imply better results in the future as well as one unknown random event can change the sequence of events. Its only who survive the markets are known and the rest perish. So we may only know about the Warren Buffets, George Soros but never about investors who lost a fortune.

One may not agree with his idea of total randomness as the concept of randomness suggests a non-order or non-coherence in a sequence of symbols or steps, such that there is no intelligible pattern or combination. In simpler words anything which is not certain is random. It is simpler to prove randomness as only one instance of uncertain outcome is enough to make any events random. In reality only strict scientific outcome like two molecules of hydrogen and one molecule of oxygen may lead to water can be said with certainty.

The reason to quote about randomness here is Technical Analysis is not a Science but an Art and not all outcomes will be favorable but if applied well with sound risk management then the probability of making winning trades consistently is pretty high and can digest black swan events.

## **CHARTING**

### **Plotting charts**

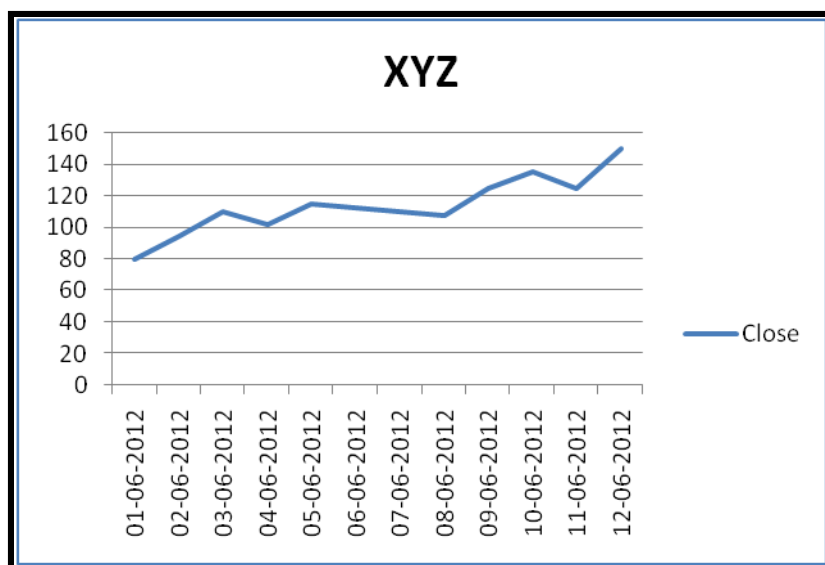
Plotting of charts for technical analysis is as simple and easy as basic geometry! In earlier times charts were made using just pencil and graph paper. Technology has simplified what was once tedious and cumbersome. Nowadays, Japanese candlesticks can also be made using Microsoft Excel.

Without much ado, let us plot a line chart. And to plot a chart, we require only time and price data! A simple example is given below on how to create a Line Chart.

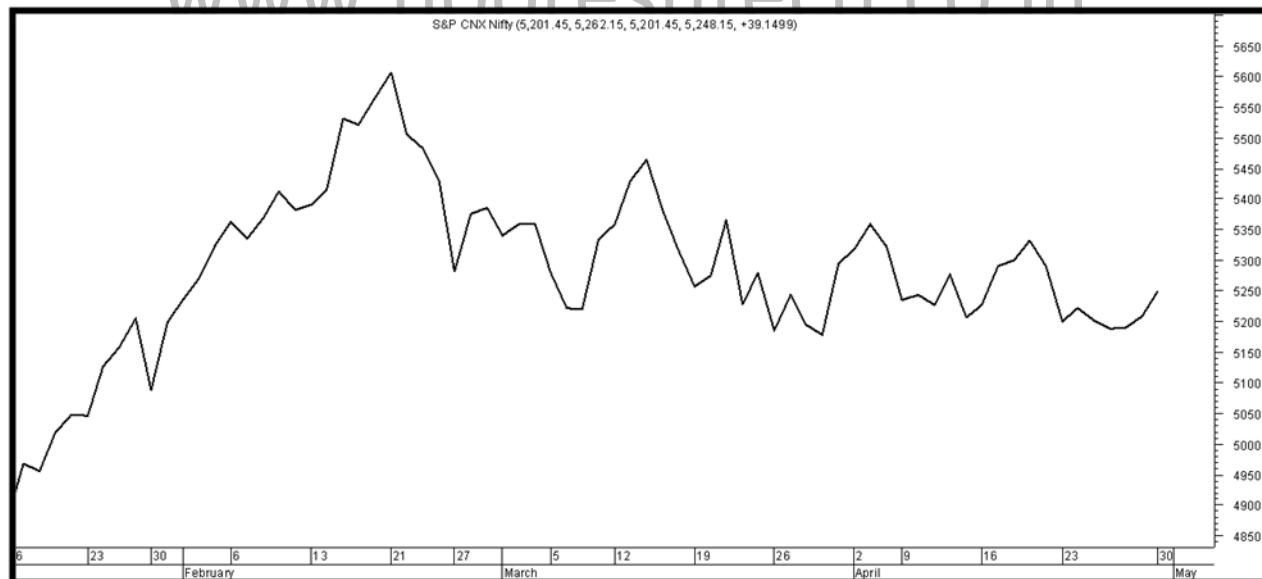
Date	Close
01-06-2012	80
02-06-2012	95
03-06-2012	110
04-06-2012	102
05-06-2012	115
08-06-2012	108
09-06-2012	125
10-06-2012	135
11-06-2012	125
12-06-2012	150

A simple line chart would look as below.





Another example: The Nifty for four months of daily data



Line Charts are very basic and have their own limitations for practical usage

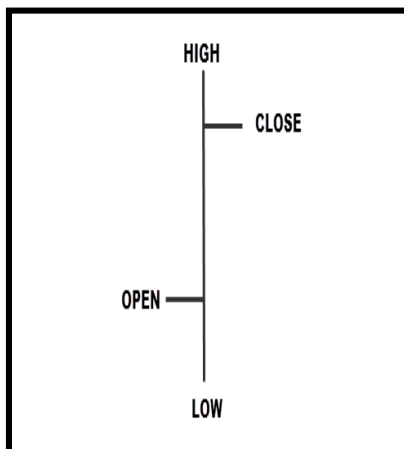
Line charts are used to reduce the noise (remove volatility) and give a very clean and simple picture of the security. In earlier days, the majority of technical analysts preferred using a line chart for analysis to remove the noise of volatility of the day. But in the current world scenario

with all global markets being inter-connected and highly liquid, we need to give importance to open, high and low data, along with closing prices, although during volatile times or when analysing a very illiquid security, or in times of confusion, line charts can be very helpful.

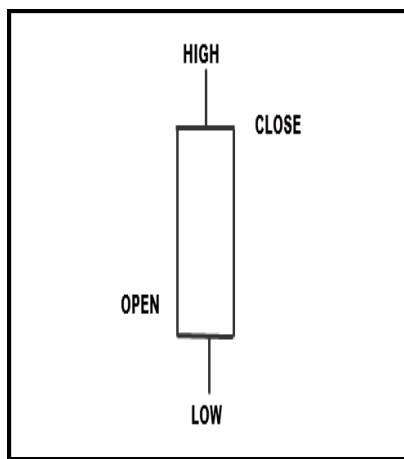
## Japanese Candlesticks Charting

As we go a bit deeper into Geometry the same way in Charting we have the next two ways to plot charts.

### 1) Bars.



### 2) Candlesticks



There are many more charting styles with many variations and everyone has their own favorite. Aesthetically or rather for viewing and understanding I find Japanese candlesticks are the best for simplicity.

[www.nooreshtech.co.in](http://www.nooreshtech.co.in)

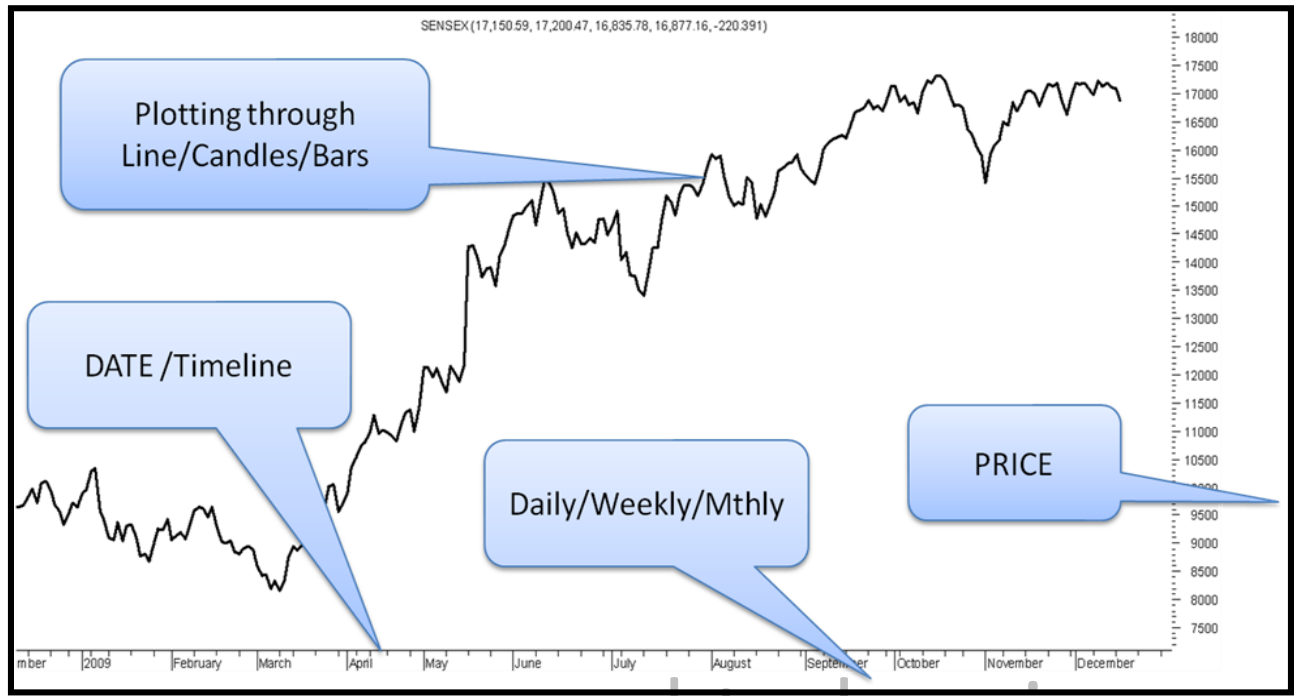
Candle Sticks Chart Illustration



The above illustration of candlestick chart is an outdated style as nowadays coloured candles are used to make analyzing visually more appealing and easier. Colours add another dimension to candle stick charting, which we will look into later in the chapter.

## Scales – Logarithmic / Linear.

The chart below shows a simple depiction of a technical chart.



## Chart Properties.

### Time Scale – (X-Axis)

The scale on the bottom refers to the range of the dates which can vary from minutes to years. The most frequently used time scales are intraday, daily, weekly, monthly, quarterly and annual. With highly liquid markets every scale gives a lot of clarity to the moves which are happening in the markets. A day trader may use a 5/15/60 minutes chart whereas a swing trader may look at daily charts. Every data point shows the open, high, low and close for the time period. For a weekly chart

Open = Mondays Open Price.

High = highest in the week.

Low = Lowest price in the week.

Close = Fridays closing price.

Weekly and Monthly charts are generally used for longer term analysis. With cycles getting shorter and shorter by the day preference of Daily charts has increasingly become important even for longer term analysis.

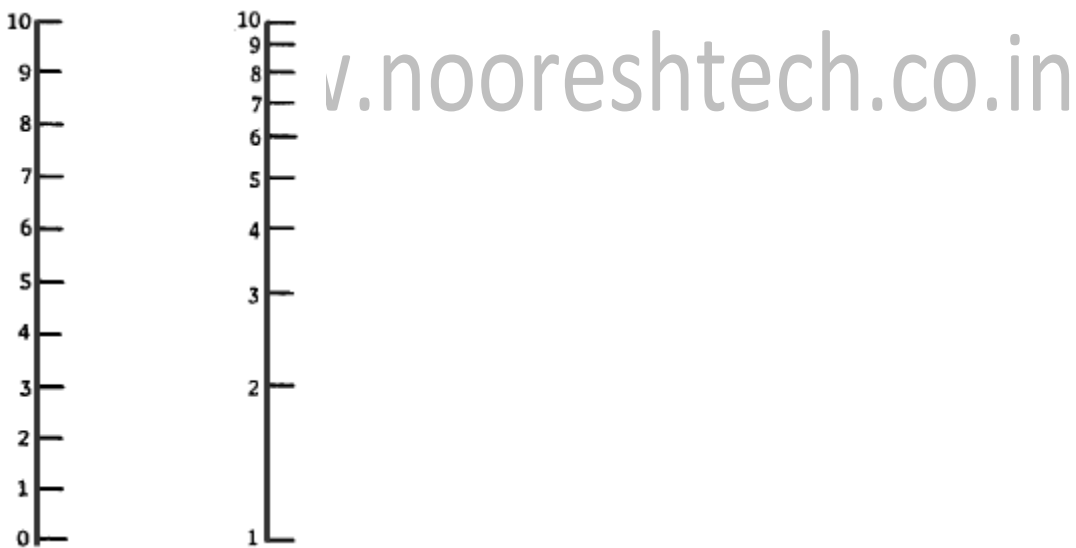
#### Price Scale – (Y- Axis)

The right side of the scale shows the price on the chart. This is normal geometry with prices going from 0 to infinity depending on the stock chart. But in technical analysis there are two types of scales namely Logarithmic and Linear.

**Linear Scale** – This is the standard scale with 0-10-20-30-40-50 where each interval occupies same space. So a move from 10-20 is equal to a move from 40-50. Basically a linear scale measures moves in absolute terms and not signifying percentage moves.

**Logarithmic Scale** - In a logarithmic scale the distance between two points is equal to the percentage change. So a move from 10-20 is 100% whereas a move from 40-50 will be 25%. In this case a move from 40-50 will occupy  $\frac{1}{4}$  the space of 10-20.

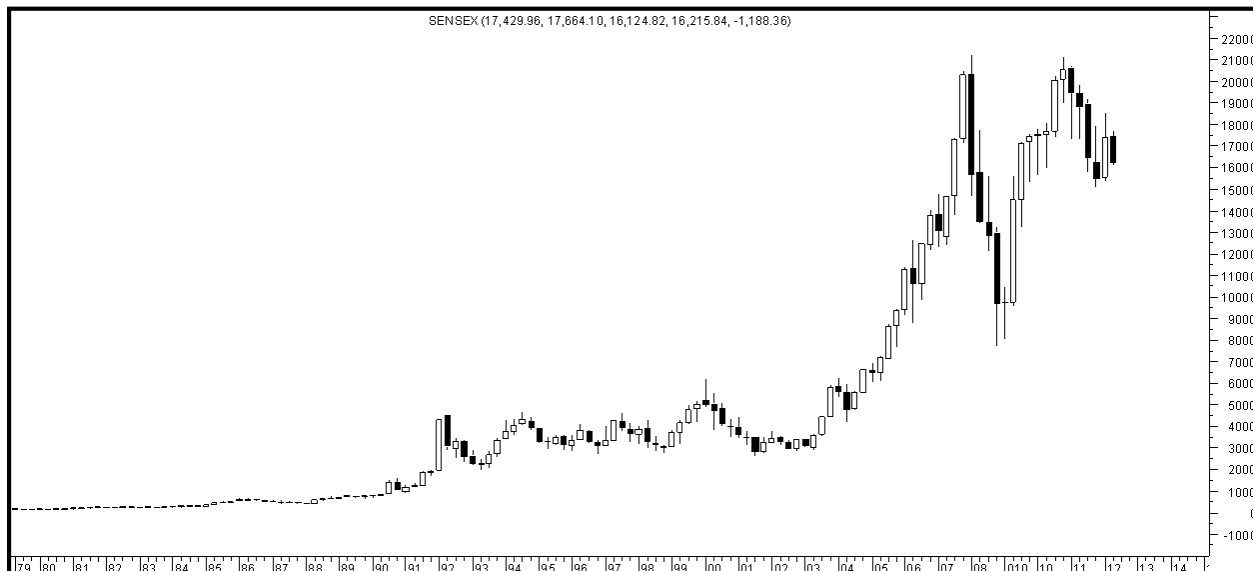
Look at this figure. The linear scale on the left and logarithmic scale on the right.



Although some analysts do prefer looking at logarithmic scales even for short term time frames but the major use for logarithmic scale is to look at longer time frames. This will be well explained by the difference in the 30 year chart of Sensex below.

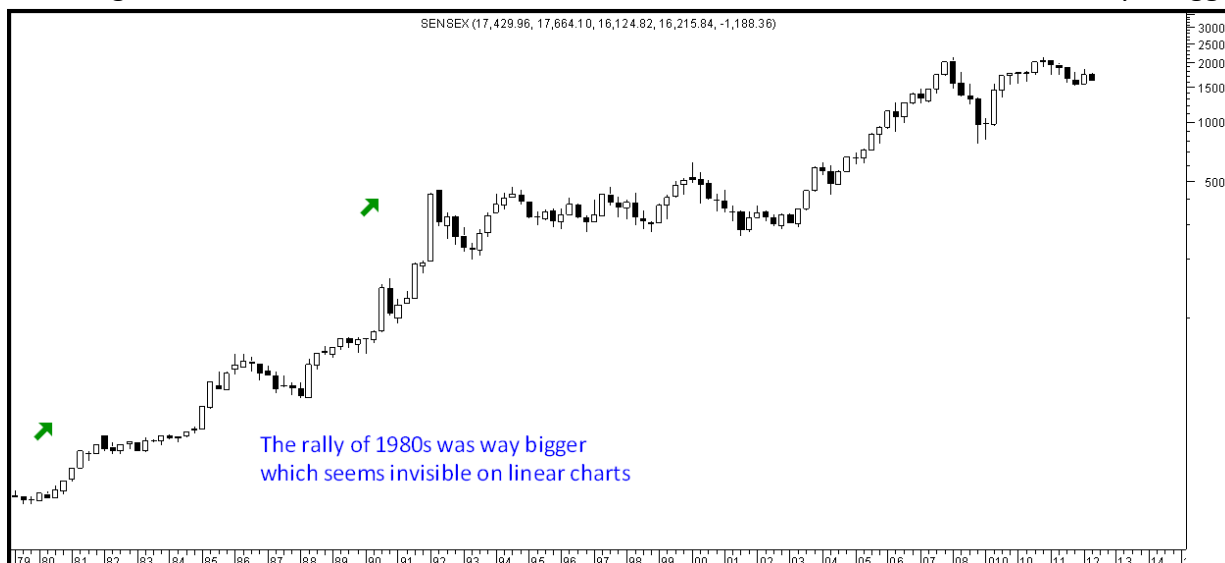
#### **Sensex Linear scale yearly chart for last 30 years.**

The rise of 1980s is invisible as in absolute terms a move from 120 to 4500 seems miniscule compared to a move of 3000 to 21000.



### Sensex Logarithmic scale yearly chart for last 30 years.

The logarithmic scale shows the 4000% move in the 1980 was way bigger.



So whenever we are trying to look into a 5 year or a longer time frame it is better to glance through the logarithmic scale. In Momentum logarithmic scale gives a lot of upper side extreme

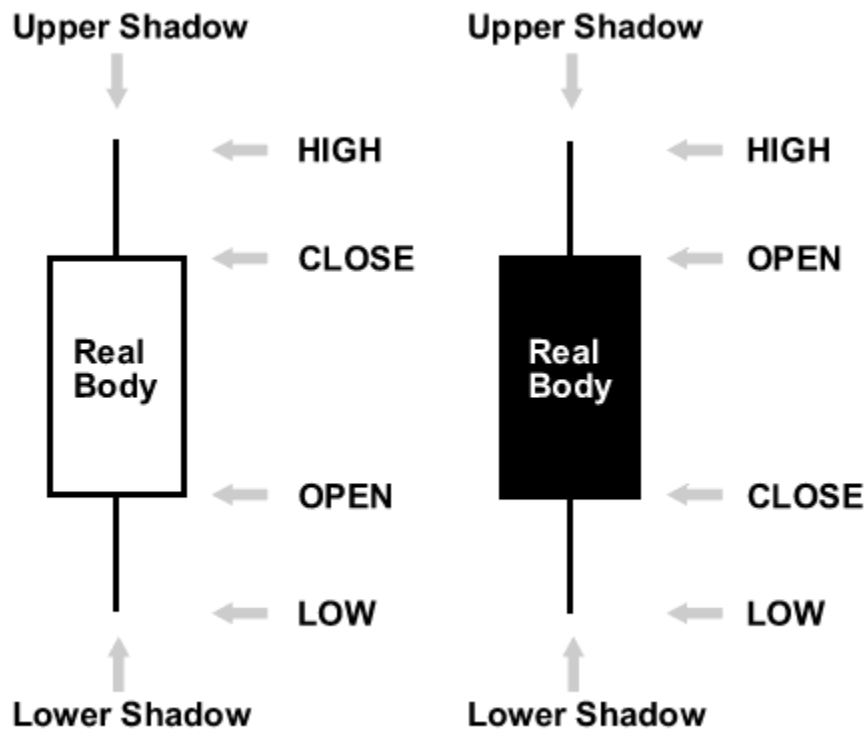
resistances as seen in chart of Gold below which was [posted](#) on my blog, [www.nooreshtech.co.in](http://www.nooreshtech.co.in) in September 2011. It gave a clear and precise topping out range in parabolic moves of Gold.



### **Creating Candlesticks the Classic Way.**

Current breed of technical analysts are so Prolific in their use of softwares for charting that they have given a go-by to the classical way of learning and creating candle sticks

Before we learn how to create, let's take a look at the anatomy of the candle stick.



To create a candle stick as shown above we need a day's price data of Open, High, Low & Close.

Open & Close = Body of the candle (shown above as Real Body)

High & Low = Range of the candle / Shadow

Now let's understand why one candle is coloured white while another one is black?

- If Close Price is greater than Open Price for the day, then the body (rectangle formed by joining open and close price) is left empty thereby making it seem to be a white candle.
- If Close price is lesser than Open price for the day, then the body is shaded (the rectangle is filled with black colour) giving an impression of black candle.

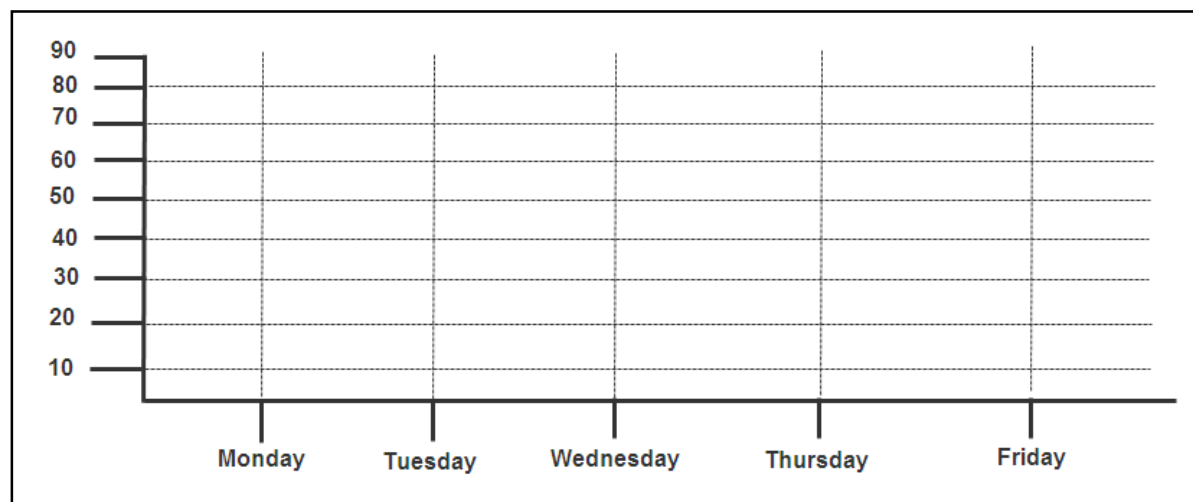
Consider the following data for a stock for 5 consecutive days.

Day	Open	High	Low	Close
Monday	60	70	55	65
Tuesday	70	80	68	78

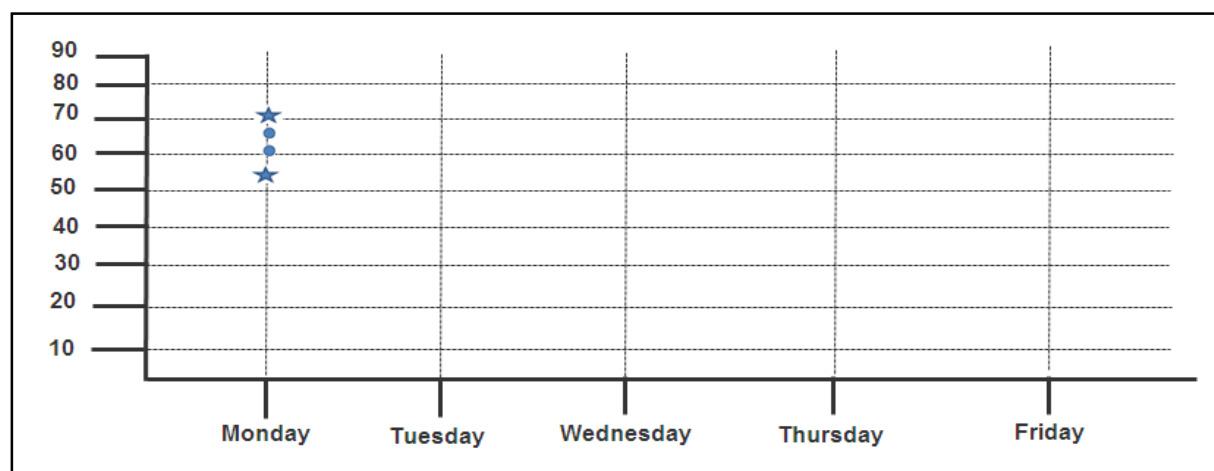


Wednesday	80	80	70	75
Thursday	75	80	50	55
Friday	50	55	30	35

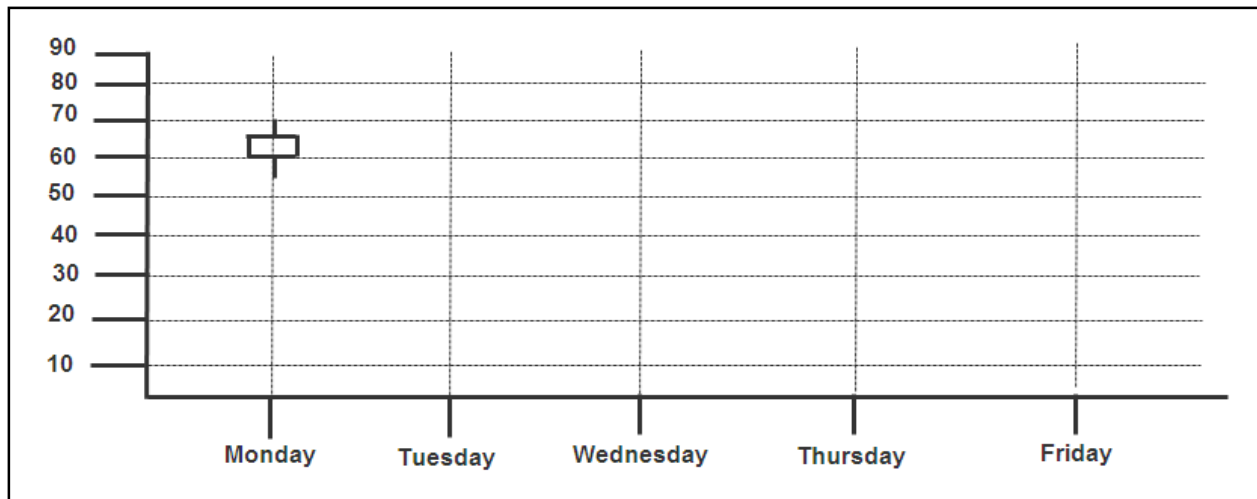
Creating a graph is the next step where Y axis = day and X-Axis = price.



Now put the data points on the graph. (One may use a pen to put the points with a dot for Open/Close and \* for High/Low)



Now join the open and close to make the body while high/low makes the range of the candle.



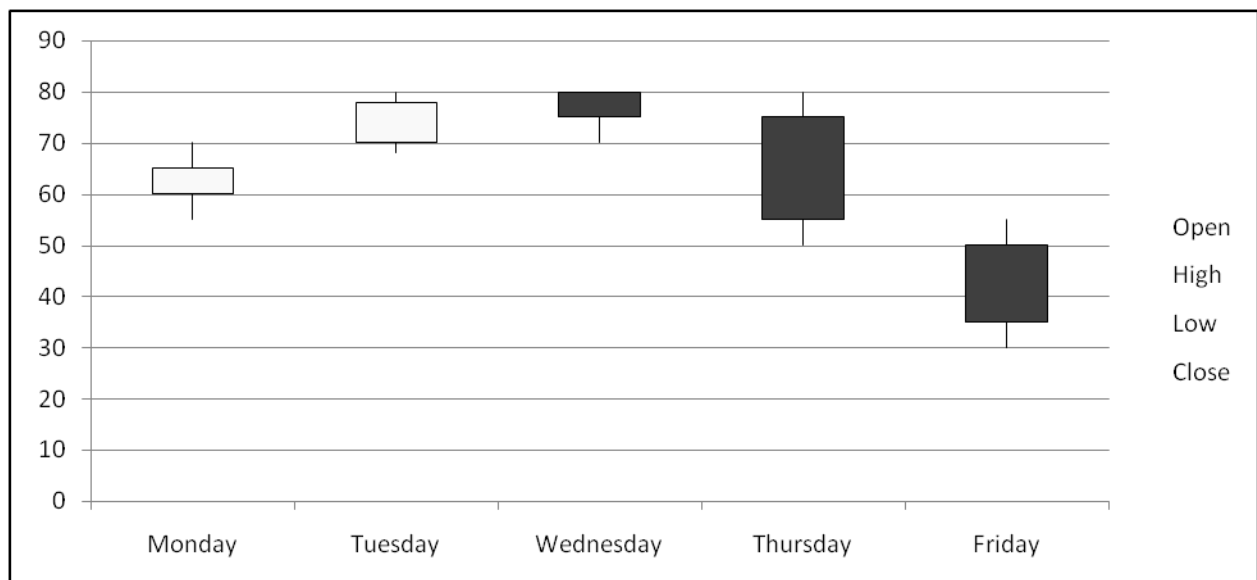
Please use the above graph to create candles for next four days using the above data.

Microsoft excel generates candle sticks chart just like the one above.

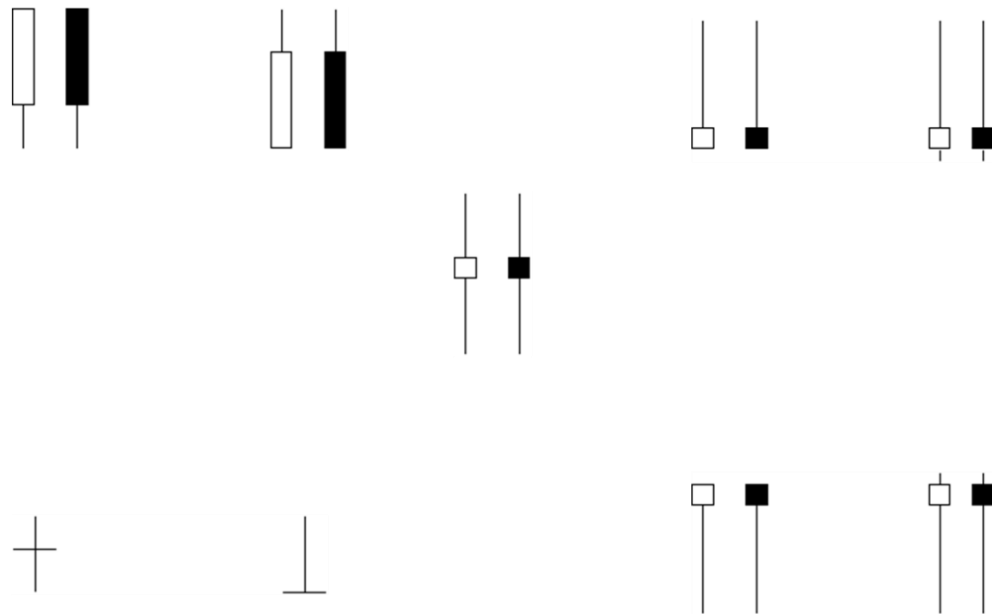
It is very important to understand the concept of creating a candle stick as it helps in realizing the importance of patterns and also gives a fair bit of advantage to traders. As everybody in the market would like to have an early signal or warning system in place, knowledge of pattern being formed earlier during the day will surely be a super advantage if one can create the candle mentally.

[www.nooreshtech.co.in](http://www.nooreshtech.co.in)

So, it is suggested that you should learn to create candles and understand various candle stick patterns to be ahead of others.



Once the plotting is over the next step is to look at various possible shapes a candlestick can take. First keeping the low/close same we try to look at some random candlestick shapes.



There could be many more such formations. Before we get into the next chapter will urge you to doodle some more in the space below.

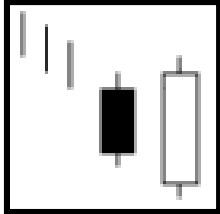
[www.nooreshtech.co.in](http://www.nooreshtech.co.in)

### **Candlestick Patterns**

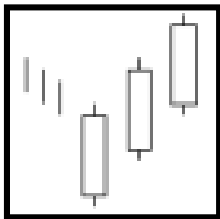
A candlestick pattern always comprises two candles. The classification of patterns is mainly Reversal and Continuation Patterns.

Although there could be innumerable candlestick patterns I have illustrated only the basic and most important ones and tried to remove much of unrequired data overflow.

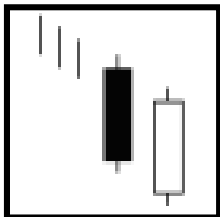
### **Bullish Reversal Patterns**



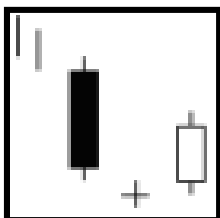
**Engulfing Pattern:** A reversal pattern that can be bearish or bullish, depending upon whether it appears at the end of an uptrend (bearish engulfing pattern) or a downtrend (bullish engulfing pattern). The first day is characterized by a small body, followed by a day whose body completely engulfs the previous day's body.



**Three White Soldiers:** A bullish reversal pattern consisting of three consecutive long white bodies. Each should open within the previous body and the close should be near the high of the day.

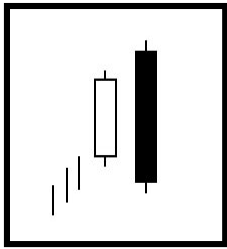


**Piercing Line:** A bullish two day reversal pattern. The first day, in a downtrend, is a long black day. The next day opens at a new low, then closes above the midpoint of the body of the first day.

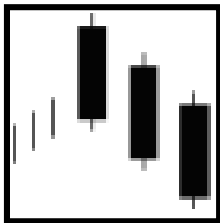


**Morning Doji Star:** A three day bullish reversal pattern that is very similar to the Morning Star. The first day is in a downtrend with a long black body. The next day opens lower with a Doji that has a small trading range. The last day closes above the midpoint of the first day.

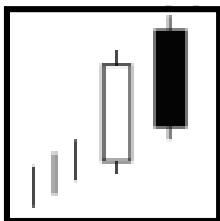
## **Bearish Reversal Patterns**



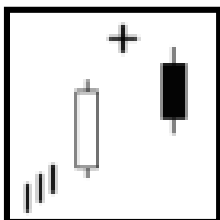
**Engulfing Pattern:** A reversal pattern that can be bearish or bullish, depending upon whether it appears at the end of an uptrend (bearish engulfing pattern) or a downtrend (bullish engulfing pattern). The first day is characterized by a small body, followed by a day whose body completely engulfs the previous day's body.



**Three Black Crows:** A bearish reversal pattern consisting of three consecutive long black bodies where each day closes at or near its low and opens within the body of the previous day.

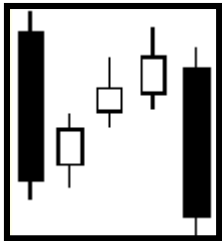


**Dark Cloud Cover:** A bearish reversal pattern that continues the uptrend with a long white body. The next day opens at a new high then closes below the midpoint of the body of the first day.

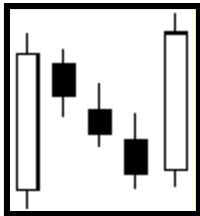


**Evening Doji Star:** A three day bearish reversal pattern similar to the Evening Star. The uptrend continues with a large white body. The next day opens higher, trades in a small range, then closes at its open (Doji). The next day closes below the midpoint of the body of the first day.

### Continuation Patterns



**Bearish 3 Method Formation.** A long black body followed by three small, usually white, bodies and another long black body. The three white bodies are contained within the first black body's range.



**Bullish 3 Method Formation.** A long white body followed by three small, usually black, bodies and another long white body. The three black bodies are contained within the first white body's range.

[www.nooreshtech.co.in](http://www.nooreshtech.co.in)

The list could continue with numerous Japanese candlestick patterns and many new might have been discovered up by analysts. The two most important ones which according to me give excellent results and help in timing the markets are discussed below.

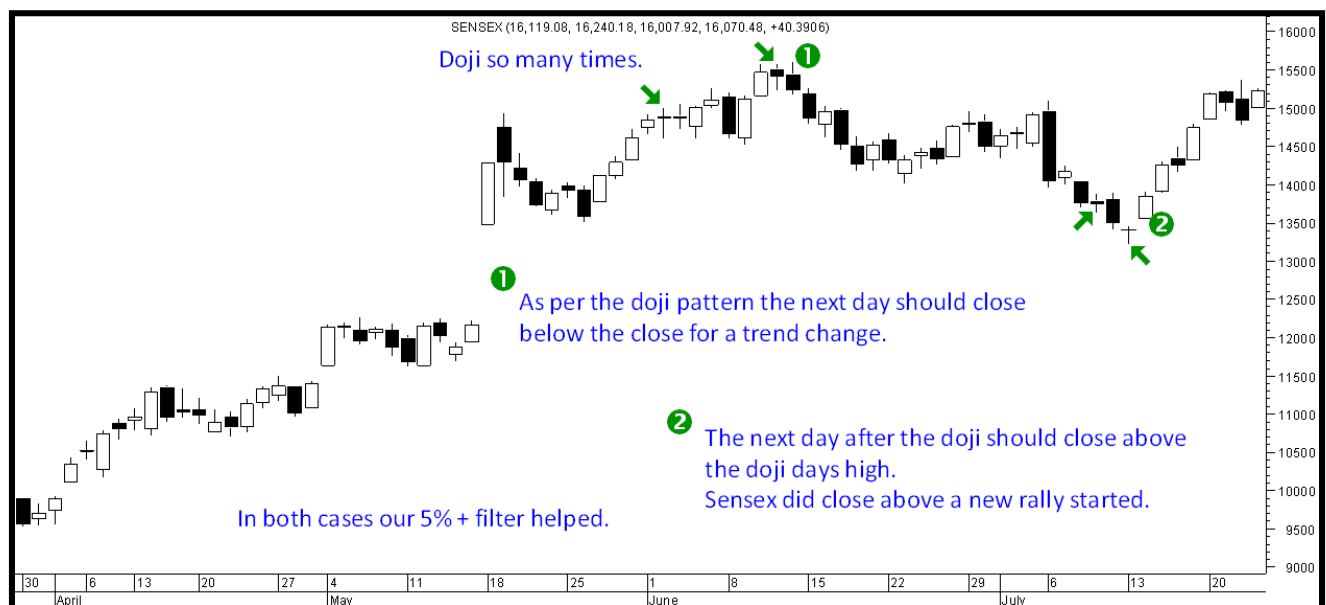
### Dojis and Morning/Evening star.

A doji is a candle which has the difference between open and close to be small. Doji is a reversal signal with a confirmation coming the next day in the form of a morning star or evening star.

### Things to Note:

- ➔ A doji should be a preceding upmove/downmove with a large candle.
- ➔ Best combined if such a signal comes at the bottom/top of channels.

Below is a chart of Sensex post the 20% circuit move on elections.



- 1) In the first instance we see 2-3 dojis but no reversal confirmation on the next day. Finally the pattern is made (see symbol 1) making a perfect evening star.
- 2) Similarly on the downside we see a reversal signal being confirmed after the 2<sup>nd</sup> doji.

Another reason to keep watching for dojis is the high rate with Indian and global indices for reversals. Below are the formations for last 2 years. Almost 60-70% of the time a peak and trough is given by dojis.

Above are the charts for 2011/2010. We can see 6 out of times a top or bottom is through a doji stars. It shows one needs to keep looking for daily candlestick interpretations but wait for reversal patterns to be formed.

### **Bullish/Bearish Harami**

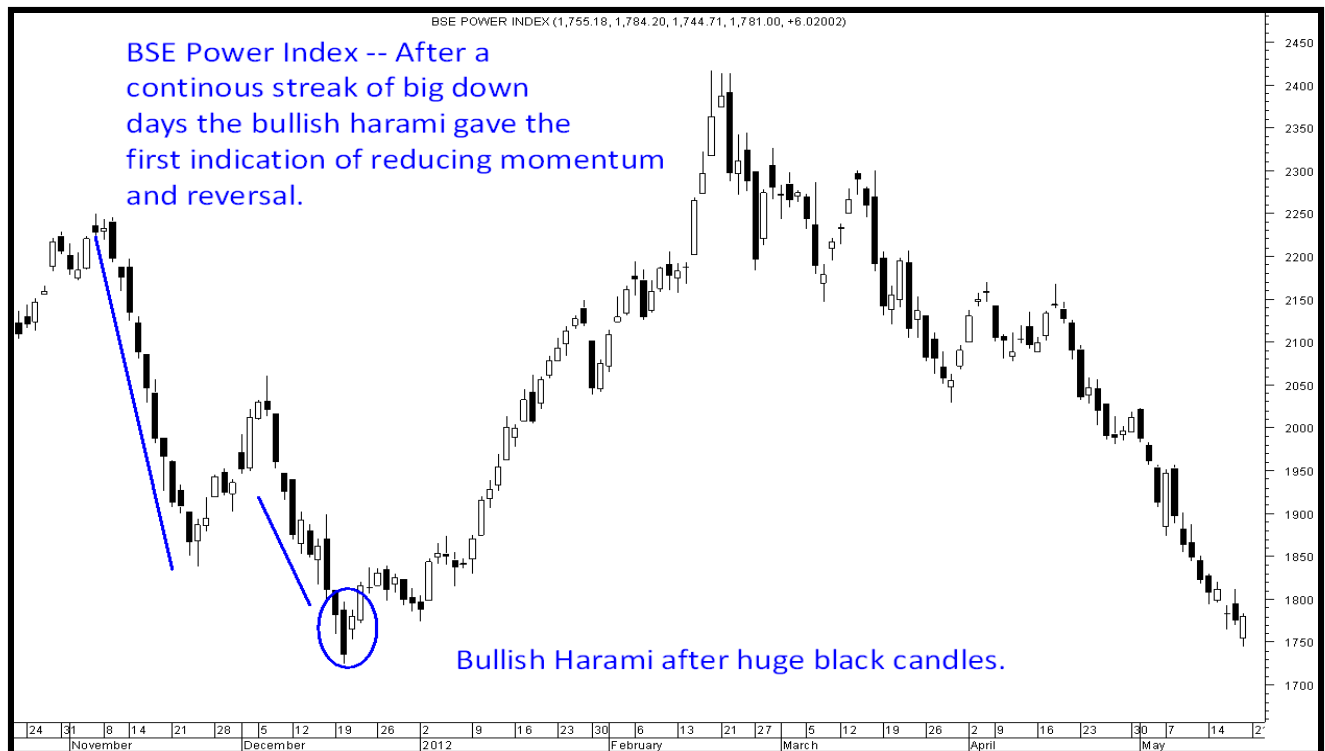
The harami pattern comes from the Japanese word harami which means pregnant lady though in Hindi it turns out to mean something offensive. If a harami is seen in strong down or uptrends with big candles it gives very timely and important reversal signals.

Things to Note:

#### **Things to Note:**

- ➔ To be seen in major downtrends/uptrends which have big black/white candles and strong momentum moves.
- ➔ In many cases the next day may not necessarily close above the high of the harami and one may even look for next two days closing to be above it as a signal.
- ➔ Best applied in strong falling markets.





As one can see the downtrend was characterized with big down candles and the Bullish Harami gave the first indication of momentum slowing. The next candle closing confirmed a turnaround to the trend.

The pattern can be best seen on sectoral indices to get an idea of change in stance of the market and reversal of momentum.

Meanwhile those who are really interested in doing extensive reading on this chapter should read Steve Nison's – Japanese Candlestick Charting Techniques. But for profitable trading the above covered patterns would be more than enough.

### **Avoidable jargon/patterns.**

With candlestick patterns there are almost 40-50 and may keep increasing with time. Not all will lead to clear interpretations. Many charting software's now have an expert which actually pops out with the pattern and implications.

If we look at these patterns – Spinning Tops, Doji, Gravestone Doji, Long Legged Doji, Hammer ( shown in a above image ) are all patterns pointing to a topping/bottoming or reversal patterns in the parent group of DOJI in which open to close body is small and range can be wide. These patterns are to be seen after a good rally or fall.

The most important part in using candlesticks is the interpretation and when to be used. In finding a doji pattern it is important to see a preceeding rally or fall of big magnitude. One may not try to interpret every candle to give a signal.

The filter may change with time if markets get into maddening moves but at least it removes the 40 alerts you will see every day on your software on the 100s of charts you see.

### **Conclusions:**

There are many candlestick patterns but some of the most important to be used are reversal patterns like Dojis and Haramis.

It is found that most of the analysts try to pre-empt the pattern and take positions as per their assumptions. Such an analyst may go wrong a very big way and probably will go right too on few occasions!! But then that would be more of being lucky and if you wish to try luck rather one should visit casinos or racecourse!!

Candlesticks are the building blocks of all further analysis so will suggest that you understand the concept of creating candle sticks and understand various patterns. To do that, best thing would be to view lots and lots of charts. The more you see more you learn, it's like logging flying hours by a pilot more he flies, more he learns.

[www.nooreshtech.co.in](http://www.nooreshtech.co.in)

## **DOW THEORY**

The origins of all technical analysis material and studies derive a lot of basics from the 255 editorials written by Charles Dow in Wall Street Journal in the late 1880-1900 period. The Dow Theory not only looks into price analysis but delves deeper into market psychology as well. Along with the contributions of William Hamilton the Dow Theory has become the base material for all types of analysis related to price and volume data.

Although the earlier analysis only focused on Dow Jones Rail and Industrial Averages it applies equally well to stocks, sectors, commodities and indices. Mr Charles Dow did not write a book on the subject but books by S A Nelson, William Hamilton and Robert Rhea refined the studies of Dow and Hamilton. The Dow Jones Index now a barometer of US economy is a stock market index which was first formulated by Dow and his business associate Edward Jones.

### **The Assumptions of Dow Theory**

Every theory lies on some assumptions and fixed conditions to start with. In the same way there are few things you need to assume while accepting the usage of Dow Theory.

#### **Primary Trend cannot be manipulated**

When there is a huge amount of money involved there are bound to be scams, speculation, rumors, vested interests which try to manipulate market prices and markets as a whole. Dow Theory assumes that manipulation may occur in the short term but it will not affect the primary trend of the markets. Rumors may affect stock prices for a day or two or at times for week/months also but over the long run they go back to the primary trend. There will be secondary movements due to oversold/overbought conditions which may lead to temporary moves but will settle down with time. For example in India markets many small cap penny stocks or IPO listings may get manipulated but over time it ends up in the dumps.

Also a cartel may possibly manipulate a single security or even a group of securities but it can be easily assumed that it may not be possible to manipulate the index as a whole for long term. The market as a whole is too big to be manipulated.

#### **Averages Discount Everything**

The market reflects all available information. Everything there is to know is already reflected in the markets through the price. Prices represent the sum total of all the hopes, fears and expectations of all participants. Interest rate movements, earnings expectations, revenue projections, presidential

elections, product initiatives and all else are already priced into the market. The unexpected will occur, but usually this will affect the short-term trend. The primary trend will remain unaffected.

Look at the example below of the euphoric move in DLF which was a major mover in end of 2007-2008 but once the trend changed it continued it ended up at 10% of peak levels.



### No Theory is perfect

It is also said none of the scientific theories can be totally perfect as even one instance of non confirmation makes it false. Even Dow theory or as a matter of fact any analysis related to securities and indices can never be considered as perfect or rather it's a set of guidelines and principles to assist investors/traders to understand, analyse markets and increase the probability of being profitable. Given the fact market prices is a phenomenon of collective behavior it is necessary to remove the emotion part of investing/trading. Dow Theory and all forms of Technical Analysis try to remove the influence of emotions in our decisions. But how much ever you try if a person has a huge long position he may always look for bullish signals then to look at a reversal. This will always remain a nagging factor for every trader/investor and analysts.

### The 6 basic tenets of Dow Theory

We will first look into the basic tenets for the Dow Theory and later in the chapter look how to use these ideas for analysis.

#### 1. The Averages Discount Everything:

Under the first basic premise, all news and information is quickly incorporated into a stock price as soon as that information becomes available. Also even natural calamities get discounted in the price very quickly.

#### 2. The market has Three Trends:

Dow defined an uptrend as a situation in which each successive rally closes higher than the previous rally high, and each successive rally low also closes higher than the previous rally low. In other words, an uptrend has a pattern of rising peaks and troughs. The opposite situation, with successively lower peaks and troughs, defines a downtrend. Dow's definition has withstood the test of time and still forms the cornerstone of trend analysis. Below picture would sum it up.



www.nooreshtech.co.in

The theory defines three movements: The Primary Trend is the major movement of the market. This trend can last for several years. The Secondary Trend or "intermediate trend" serves as a correction to the primary movement, moving in the opposite direction of the primary movement. The Minor Trend is a corrective move within the secondary trend and is typically defined as lasting less than three weeks.

### 3. Major Trends Have Three Phases:

This tenet further describes the primary trend by identifying three phases of that trend. The Accumulation Phase marks the beginning of an upward trend. This phase comes at the end of a downward trend as investors re-enter the market to buy stocks at attractive prices. The Public Participation Phase follows as informed investors enter the market and help to drive up stock prices. The Excess Phase completes the cycle as savvy investors to scale back their positions believing that the market is becoming over-priced.

A simpler summary would be

Accumulation Phase -> Smart Investors recognize worst is over.

Public Participation Phase -> Business Improves and price advances with technical trend followers participating.

Distribution Phase -> Newspaper Headlines, Economy shining, Public euphoria, Smart Investors selling.

#### 4. The Averages Must Confirm Each Other:

The Dow Theory states that a major reversal in trends is not signaled unless the major averages (Industrial and Railway) are in agreement. Without agreement in these averages, it is difficult to confirm a trend in business conditions. (With time we need to look into this as sectors charging up the economy have changed. Apple with 100 billion dollars cash comes in neither of the averages)

#### 5. Volume Must Confirm the Trend:

Although volume did not form a major part of Dow Theory it clearly mentions that Volume should expand in the direction of Major trend. So in strong uptrend's volumes should increase with price rise and diminish in price falls/corrections. Dow used closing prices for the analysis but with current availability of data one can do a lot of volume analysis on smaller time frames.

In the chart below one can see how price rises were accompanied with volumes maintaining the major trend.



## 6. Trends Exist Until Definitive Signals Mark the End:

As with the law of motion a trend should continue till infinity or till some external forces cause it to change direction. This forms the base of all trend following techniques. Many may argue if every new low means a sell then a security should go to zero or every new high means a buy the security should go to infinity. This is where Dow Theorist does the trend following part where it waits for strong evidences of negation of trend and reversal signals. There might be many indicators which show loss of momentum but the purists prefer to wait for strong evidence of trend changes many a times some may get late but eventually accepts the trend changes. We will look into how to find such trend changes and difficulties in accepting realities in further details ahead.

The basic tenets and assumptions of Dow Theory are very simple to understand and apply. Also it makes us understand of how psychology effects the market movements. Now we will look into couple of very important conclusions from the Dow Theory and how it can be used to understand market movements.

www.nooreshtech.co.in

### **The 1-2-3 Pattern and Three Trends.**

The first tenet is very simple that averages discount everything and has been discussed in detailed in the first chapter.

The next thing we need to understand is Primary/Secondary and Minor Trends.

Primary Trend – Go into years and years.

Secondary Trend – Months to few years.

Minor Trend – less than 3 weeks.

Look at the chart below how it shows the three trends.

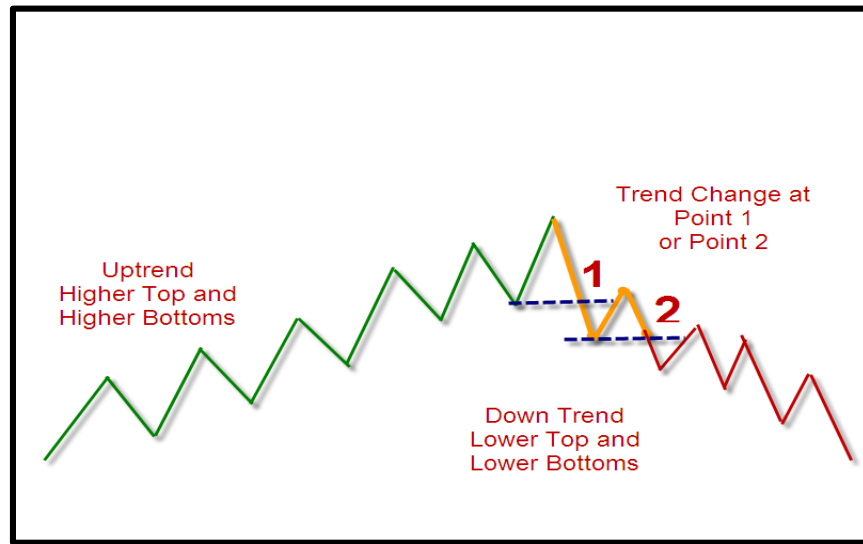


The primary trend remains down till it makes newer highs. There will be secondary corrections taking it closer to previous highs. In the secondary trend we might see pullbacks forming minor trends lasting for less than 3 weeks.

This clears out how different types of trends can be used to decide the market positioning for a trader. But we need to know what confirms the continuation of trends. This as mentioned in the second tenet is higher highs and higher bottoms for an uptrend and similarly lower tops and lower bottoms for a downtrend.

So this is how a uptrend and downtrend would look like.

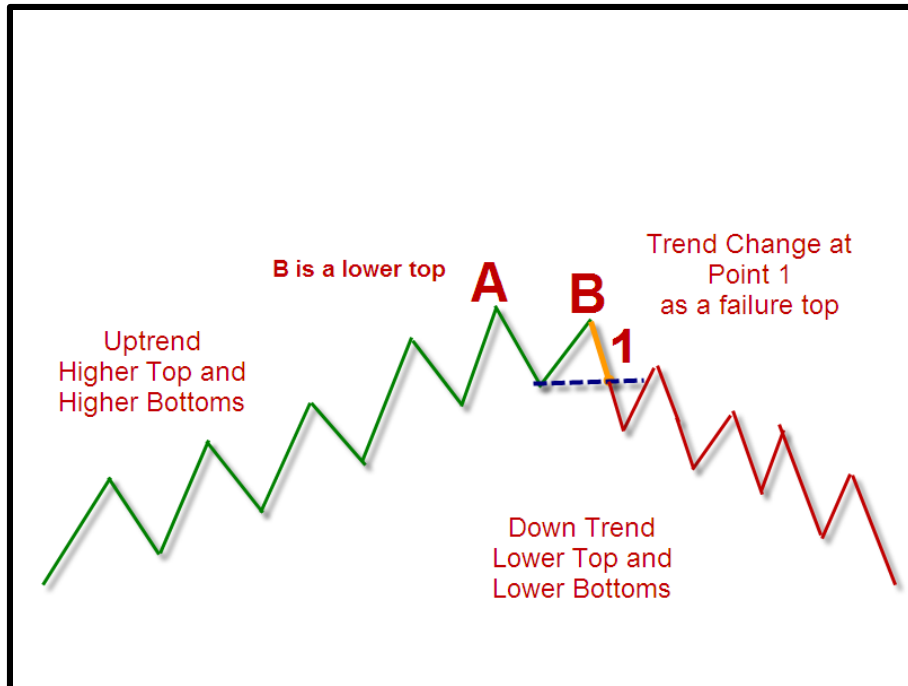




There is no problem in identifying a uptrend and a downtrend it's when to consider a trend change. Some theorist would prefer to take a trend change at point 1 and others would wait for a failure top to come first and then the new lows (Point 2).

Going with the simpler approach will prefer to wait for confirmation at point 2 unless we see classical distribution signals before point 1. We will look into the distribution pattern in the next section on phases of markets.

So in case of a failure top like the one shown below we may shift the trend change point to Point 1. Also notice the period of watching a trend change is shown with orange lines going with the normal traffic signal style where Green = Go Ahead, Orange = Pause , Red = Stop.



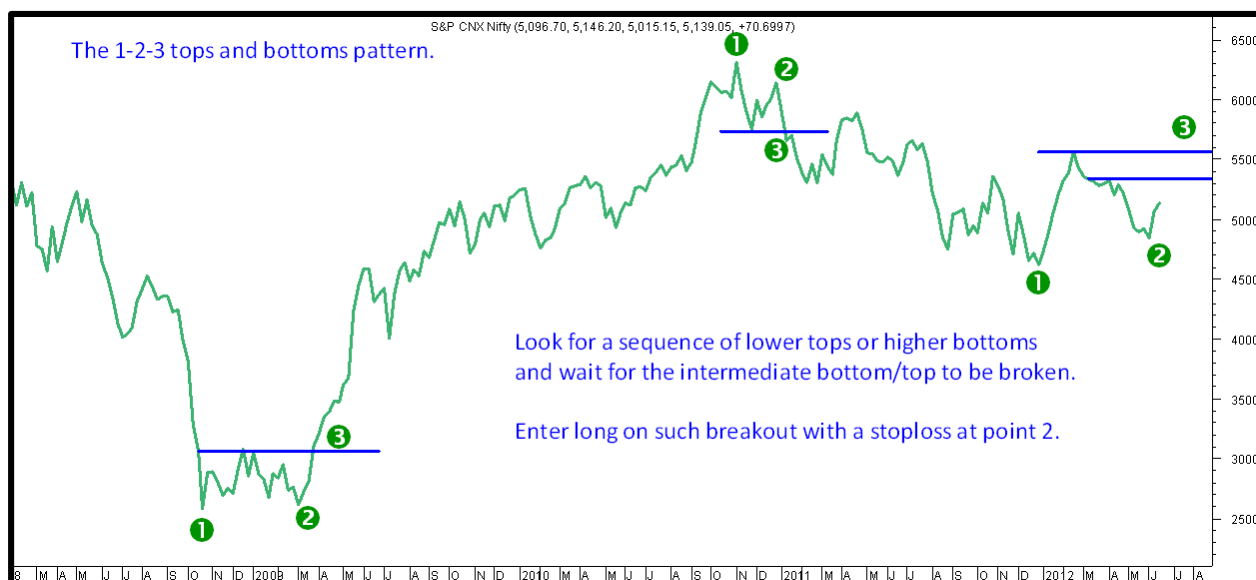
This makes us get into a Dow Theory trend following setup which I look into as a major trend signal or filter to decide the primary trend of a stock or index. I prefer to call it a 1-2-3 pattern or a top/bottom confirmation signal.

Step 1: As per Dow Theory find a sequence of Lower Tops or Lower Bottoms. Symbolize them as 1 and 2.

Step 2 : Symbolize the intermediate bottom or top with an arrow.

Step 3: Enter Long/Short on breakout above/below the arrow with a stoploss of Point 2.

Step 4: Close trade on an opposite signal and reverse the position. One can modify the exit plan.



Such a pattern is well applied on closing charts or on a little longer term time frame of few months to 2-3 years. Also one can have different points for intermediate levels for consideration.

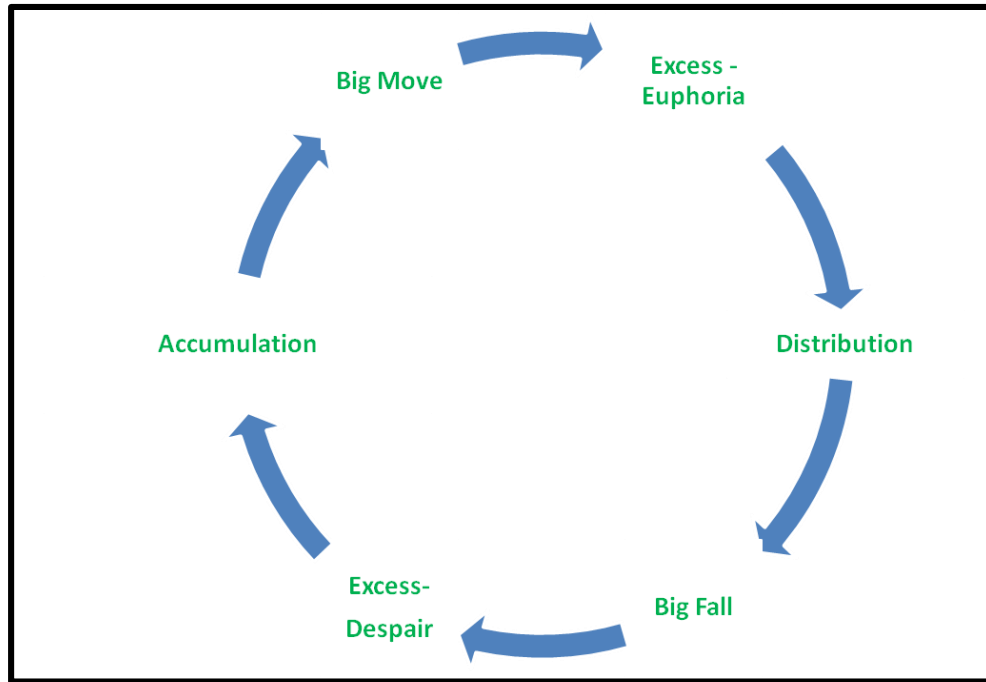
In the above chart we are looking at Nifty closing chart which gave excellent buy signal in April 2009 and a sell signal in January 2011. A similar buy signal will be generated only if markets were to cross 5550 on a closing basis. Another intermediate consideration level could be 5400. We may look for the sequence of two tops/bottoms to be at a good interval of at least 3-4 weeks more and filter the smaller moves which could be a minor trend.

The above system is just a reference for how one can find trend changes and not as a signal to trade as the point 2 which is our stoploss at times can be very deep and there is no clear exit plan so it becomes difficult to assign a risk-reward analysis. But using this system as a filter can help in understanding the primary trends.

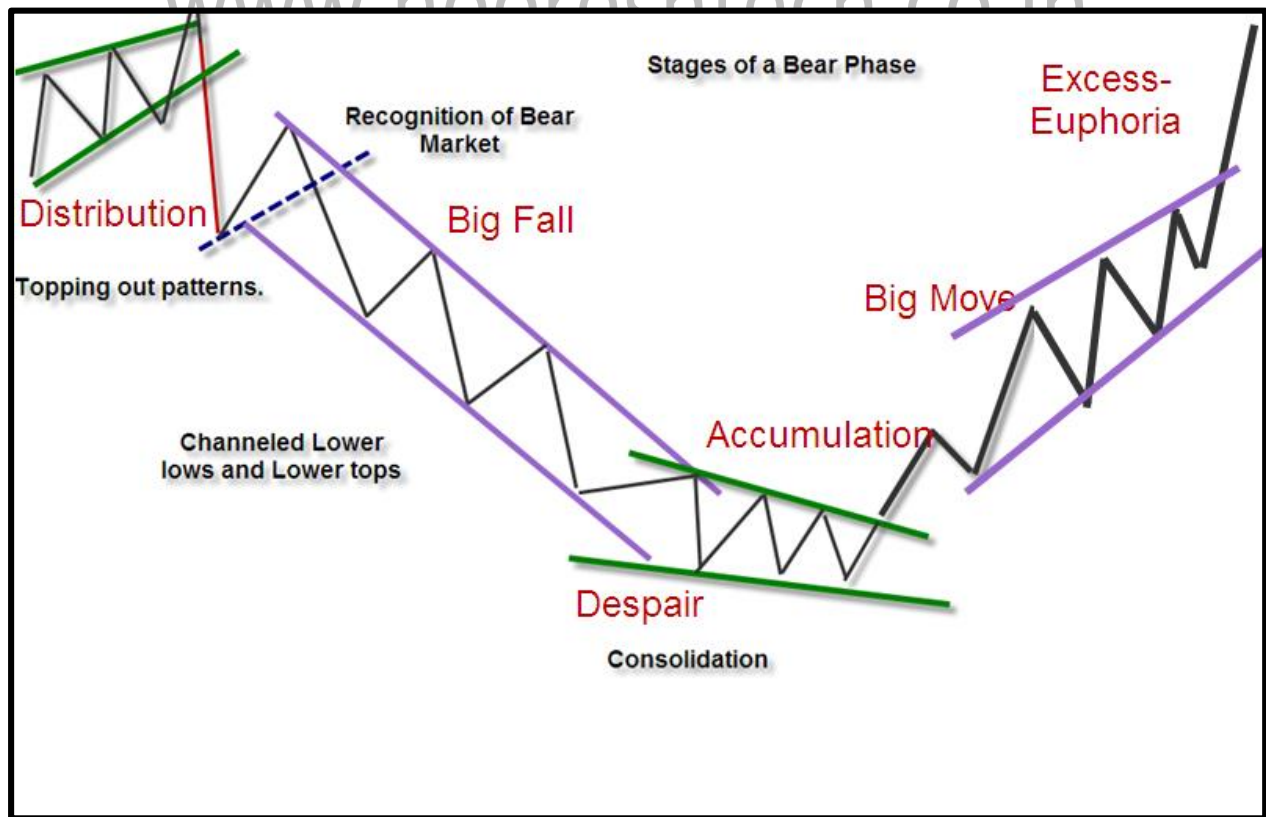
### **Three Stages of Primary Bull Market and Bear Markets**

As mentioned in the third tenet about how Accumulation, Public Participation and Distribution are the three major phases and the same continues in cycles over long periods. Theoretical it seems very simple at times but when one has to identify such phases it becomes a bit difficult but generally this is a cycle that continues.

This is how a Bull-Bear Cycle would be denoted as.



A graphical representation of price movements would be as below.



This cycle of emotions and price movements continues to happen forever and follows the basic assumptions of Technical Analysis – History Repeat itself.

The above descriptions may be clear to understand graphically but everything is best understood with known examples.

So let's try to put the above phases with Indian markets.

The best period for India Markets was undoubtedly 2003-2008. The worst period was 2000-2003 post the IT debacle. After that 2008 was one of the worst ever period for India and the world as well. Again the things reversed by 2009 and India had a good time for 2009-2010.

So in terms of the phases for the Bull Market of 2003-2007

Accumulation - 2002-2003

Big Move - 2003-2007

Euphoria – end of 2007

Distribution - 2007-2008 ( November 2007 to January 2008 )

The chart is as shown below.



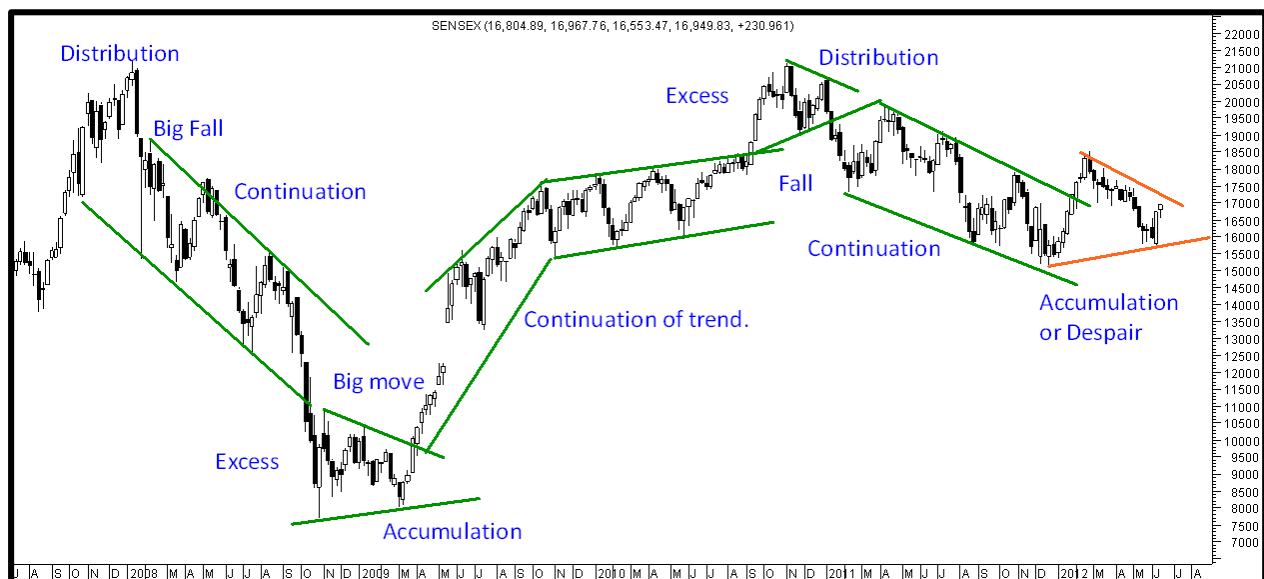
Things to Notice

- 1) Accumulation phase – In the accumulation phase of 2002-2003 India was in a terrible state post the IT debacle with many stocks falling of 90-95% from peak values. The economy was going nowhere.
- 2) Big Move – The big move in 2003-2004 created a move from 3000 to 6000 Sensex. Things started improving.

- 3) Continuation of the Trend – We saw a major correction in 2004 because of the Government change and elections. ( This can be termed as a secondary correction to the primary move as well as discounting the change of government) . We kept on seeing many corrections on the way to 16000 Sensex.
- 4) Excess Phase – The public participation increased tremendously in end of 2007 with smallcaps, midcaps and everything running. The excessive move led to the fastest upswing from 16k-17k to 21k.
- 5) Distribution – The index did not do big moves in the end of 2007 till 2008 and the big drops of 2008 (two lower circuits) cleaned up the froth of excessive euphoria and led to the start of a bear market. We did see a corrective move back to 19k because of a huge fall.

Lot of the above phases will look so simple in hindsight. That's why one needs to keep evaluating the market scenario on simple Dow Theory to help us get a better understanding of the probable future.

Now let us look into the next cycle of fall in 2008 and a subsequent bull market of 2009-2010 to get a view of both Bull and Bear Markets in one chart.



In the above chart we have 1 complete cycle of – Bear Market of 2008 and Bull Market of 2009-2010 and 1 incomplete cycle of Bear Market of 2011.

Lets look into the the 1<sup>st</sup> complete cycle

Bear Market of 2008

- 1) Big fall – The big fall in start of 2008 gave the indication of the change in trend and start of a Bear Market. Now here is where a Dow Theorist will be late. He may not sell in the distribution

phase of 2008 but the secondary pull back in 2008 ( post the lower circuits and a pullback from 15k to 18.5k ). Somebody more late may recognize the Bear Market at 16-15k in next drop.

- 2) Continuation of Trend – All through 2008 we kept seeing secondary recovery retracing back a portion of the fall but none could create a higher top and kept making lower lows.
- 3) Excess – The fall in September – October 2008 on back of the Lehmann event was the excessive pessimism around the world and in India leading to the fastest drop. ( It looks eerily inverse to the rise in end of 2007)
- 4) Accumulation – The pessimism continued till March 2009 but a new low could not be formed. This is generally the first indication of momentum being lost. Smart Investors are supposed to accumulate in this period. A Dow theorist may only get in at 9k levels post a new intermediate high. This is well above the lows of 8k in March 2009. A Dow theorist will generally miss the first 20% part of the move ( 8k to 21k ). Never expect to catch the bottoms.

#### Bull Market of 2009

- 1) Big Move – The big move in 2009 from 9k to 11k gave a clear indication of the start of a Bull Market. This continued with a double circuit in 2009 on back of new government. How similar is this to the 2008 fall.
- 2) Continuation of Trend – In 2010 the markets continued to make newer highs and bottoms albeit in a slow and steady way.
- 3) Excessive Move – The sharp move in end of 2010 created the euphoria again going into the Diwali of 2010. The inability to cross new highs in 2011 gave the first indication of distribution and loss of momentum.
- 4) Big Fall – The sharp fall to 17k in 2011 was the first indication of a Bear Market beginning. Yet again a Dow theorist would recognize a bear market somewhere after this point and be a little late.

Now comes the real part of recognition of what is in store for 2012-2013.

So before looking into what is in store for us we need to look into the facts.

- 1) Going into end of 2011 Sensex made newer lows in the range of 15800 to 15100 but in a very slow pace. This indicates the Bearish Momentum has slowed considerably.
- 2) We saw a big recovery from 15100 to 18500 from December 2011 to February 2012.
- 3) Sensex has again corrected to 15700 levels but has failed to make new lows. This is generally considered as the first signal. ( Remember March 2009 when Sensex made 8047 against 7700)
- 4) So what next?

As per Dow Theory the trend remains down till there is significant evidence of a change in it. The law of motion suggests Sensex should keep making new lows but a failure to do so at 15700 make us doubtful of the downtrend. The intermediate tops for Sensex are at 17500 and 18500 roughly.

A trend change will be noticed if the index sees a significantly fast move beyond 17500/18500 or we may wait for another higher low was an indication of loss in momentum and subsequent high for confirmation.

For now the trend is down but showing indications of accumulation. A Dow Theorist is not supposed to be a smart investor and will wait for a significant big move as a Bull Market indication. But yes to be very clear the DOW THEORIST is now clearly watching for evidences.

### **Avoidable Jargons**

There are no avoidable jargons in Dow Theory as the concept is pretty logical and simple to understand. The simplicity and effectiveness of this theory has worked for the last 100 years but with modern tools available for tracking prices and advances in understanding market behavior has led many people to avoid putting more emphasis on Dow Theory. A Dow Theory based entry points always tend to miss the 1/4<sup>th</sup> or 20-25% of the rally leads many people to look for better setups but Dow never looked at using this theory as a trading signal but as a barometer of the economy. Also neither does a Dow Theorist want to enter at the bottom or top but in middle of the trend and get out before the next starts. As seen in our examples a buy signal for Sensex would have come at 9500-9700 against a bottom of 8047 it clearly shows the lag in entry but the subsequent big run ups take care of a late entry.

As we go further into other chapters like Technical Patterns and more detailed combination of technical analysis one will start realizing the importance of emphasizing and understanding the basics of Dow Theory.

[www.nooreshtech.co.in](http://www.nooreshtech.co.in)



## **A recent Dow Theory Article I wrote for Indian Trading League.**

### **TECHNICAL ANALYSIS – A tool to Strategize for an Investor and Trader**

#### **A major Myth**

##### **1) Technical Analysis is this new thing.**

#### **Reality**

- It is the oldest form of analysis on stock markets.
- Japanese Candlesticks were developed in the 18<sup>th</sup> Century by Homma Munehisa a rice trader.
- Dow Theory based on the collected writings of Dow Jones (1882) co-founder and Editor Charles Dow inspired the development of modern technical analysis.
- In 1948 Robert D. Edwards and John Magee published Technical Analysis of Stock Trends which is widely considered to be one of the seminal works of the discipline.
- There was a time when charts were made on paper and pencil. It's the advent of information which has made the data availability and reading material.

**The first book on Security Analysis was written in 1934 by Benjamin Graham. So if we have to make a funny remark – Fundamental Analysis is the new Thing 😊**

There have been various contributions to Technical Analysis through a range of indicators (RSI, ADX, MACD), new patterns (cup and handle, harmonics), new theories (Elliot, Gann, Neo Wave etc) and much more which has made it at times useful but more complicated too.

It's better we look at the basic tenets of Dow Theory which still help you gauge the trends in indices and stocks. We will take examples in tune with Indian markets.

#### **The 6 Basic Tenets of Dow Theory**

##### **1) Averages Discount Everything.**

Price represents the sum total of all the hopes, fears and expectations of all participants. The unexpected will occur, but usually this will affect the short-term trend. The primary trend will remain unaffected.

An old Gujarati phrase – Bhaav Bhagwan Che (Price is God)

This also implies that somebody can manipulate a stock or two but cannot manipulate the whole market. In our case we can take it as our benchmark indices – Nifty and Sensex.

##### **2) The Market has three trends:**

According to Dow Theory, the market has only three trends

**Primary trend:** In Dow theory, primary trend is also considered as major trend in the market. It has a long term impact and may remain in effect for more than 1 year.

**Secondary trend:** Dow call a correction in the primary trend as secondary trend. It usually last for few weeks to months. In a bullish market secondary trend will be a downward movement and in a bearish market it will be a rally.

**Minor trend:** The “short swing” or minor movement varies with opinions from hours to a month or more.

An image says a Thousand Words.



The above tenet of sticking to the primary trend and adding more on fresh highs or on reactions to the previous bottoms would have yielded a number of trades. A big signal of primary trend started from 280-300 till 680 in 18 months.

### 3) The Market trends have three phases

**Accumulation phase:** Prices get range bound and smart money keeps accumulating. The market opinion is still negative or confused.

**Absorption phase:** Huge participation in the market. Higher Tops and Higher Bottoms like above. This phase continues until rampant speculation occurs.

**Distribution phase:** After a huge hype in the prices because of the skewed supply of the stock the prices begins to retrace as the astute investors begin to distribute their holdings to the market. As a result of it the prices start falling along with the volume.

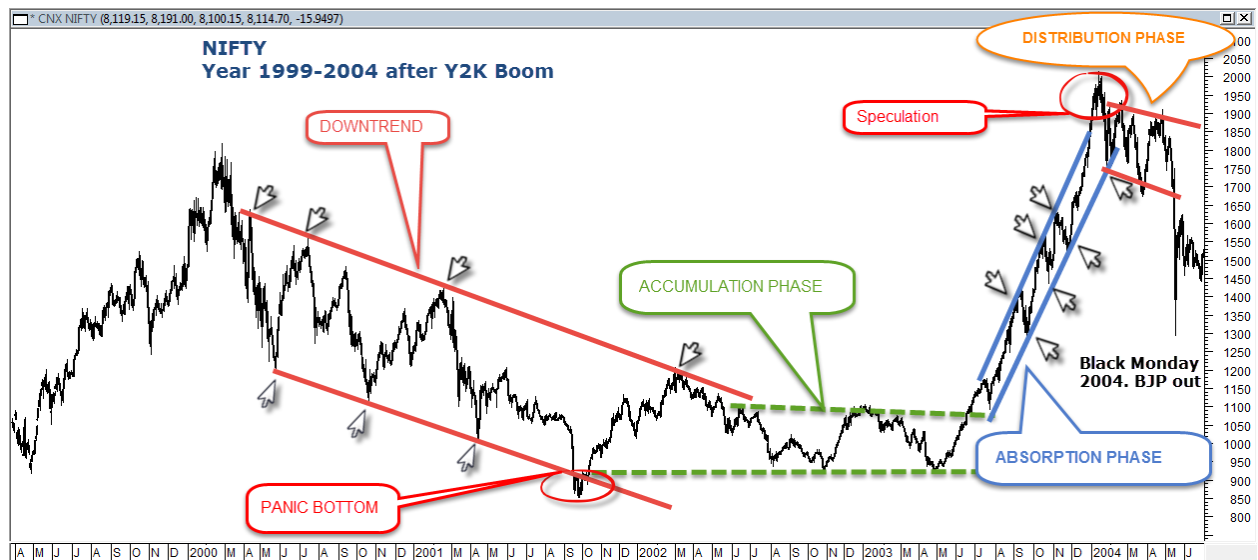
**Below we take an example of Nifty post the top made in Y2K Boom in early part of 2000.**

There was a consistent downtrend followed with a Panic Bottom made.

**Accumulation Phase** – The end of 2001 to 2003 market made 2-3 bottoms in the same zone. Fluctuating between 900-1100 roughly.

**Absorption Phase** – 2003 start to start of 2004 it rallied from a low of 900 to 2000. A Dow Theory buy signal came above the highs of 1100. Higher Tops and Higher Bottoms continued.

**Distribution Phase** – A huge upsurge seen in start of 2004 with a lot of speculative activity. The higher tops and higher bottom fails and distribution starts. This signal came much before BJP being ousted in the Elections and Nifty saw its first lower circuit on 17<sup>th</sup> May 2004.

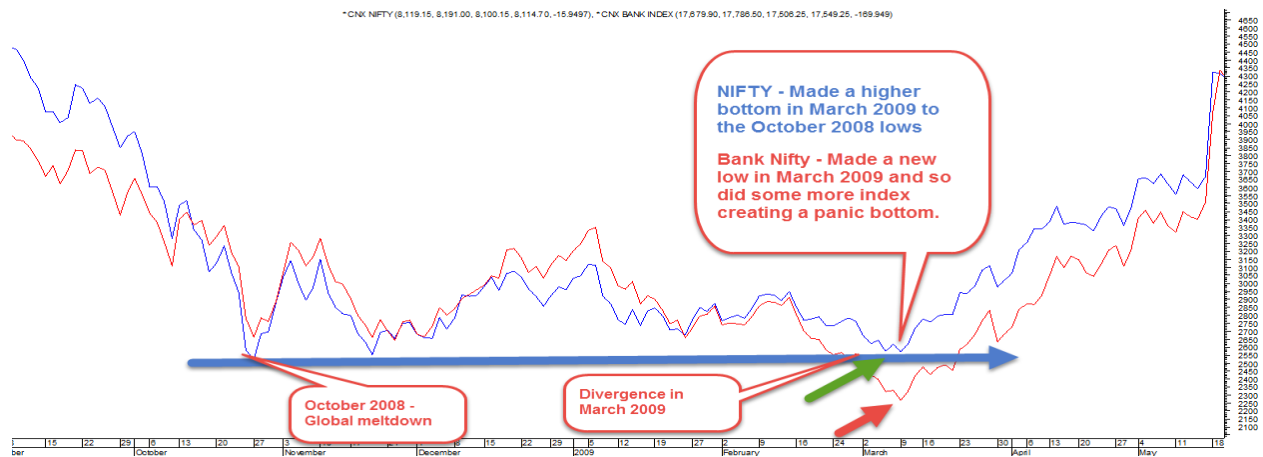


#### 4) Averages must confirm each other.

During those times Dow had the Industrial Average and Rail Average. The logic behind the theory is simple: Industrial companies manufactured the goods and the rails shipped them and so both should logically make new intermediate highs/lows in sync.

When one of these averages climbs to an intermediate high/low, then the other is expected to follow suit within a reasonable amount of time. If not, then the averages show "divergence" and the market is liable to reverse course.

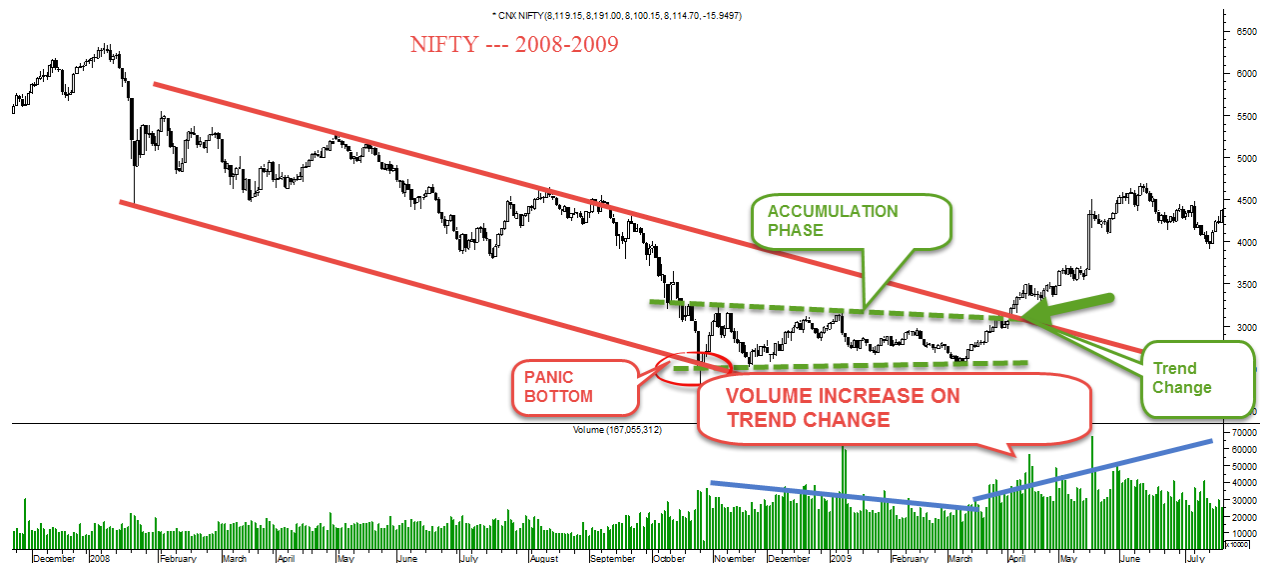
We have Nifty ( Sensex ) and Bank Nifty ( Bankex ) or other indices like Midcap/Smallcap to confirm.



Nifty and Bank Nifty showed a classical divergence in the March 2009 lows and we reversed trends in May 2009.

### 5) Volume must confirm the trend:

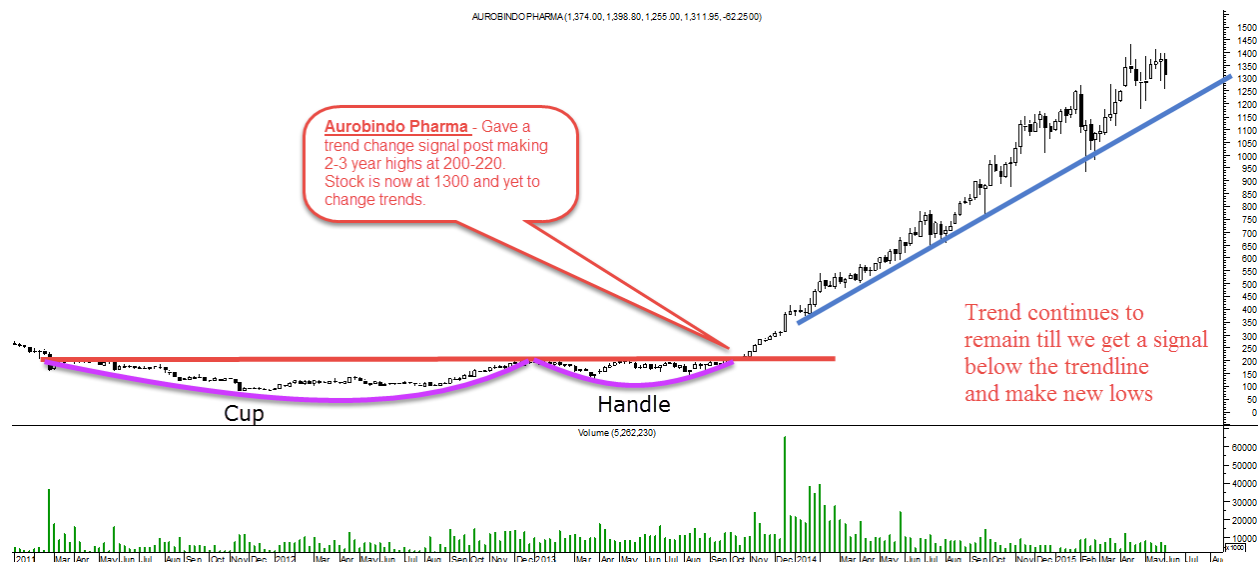
Dow recognized the volume as a secondary but important factor in confirming price signals. In other words volume should increase in the direction of the major trend. In a major uptrend volume should increase with the rally in price and should diminish during correction. Also in a major downtrend volume should expand with the fall in prices and should contract during upward ripples.



In the turnaround from March 2009 a breakout above 3000 Nifty saw a good surge in volumes much before the Indian Elections in May 2009 which got Congress re-elected.

### 6) A trend is assumed to be in effect until it gives a definite signal of reversal:

Dow was a firm believer that market remains in a trend. It may deviate for a while because of noise but it will return as soon as its effect is over. It is like Newton's law of motion "an object in motion tends to continue in motion, until some external force causes it to change direction".



The above tenets give you a good idea of how markets are placed and allow you to strategize accordingly as an investor or a trader.

Dow Theory is not infallible and essentially is a tool to assess market conditions and help you strategize better as a trader or investor.

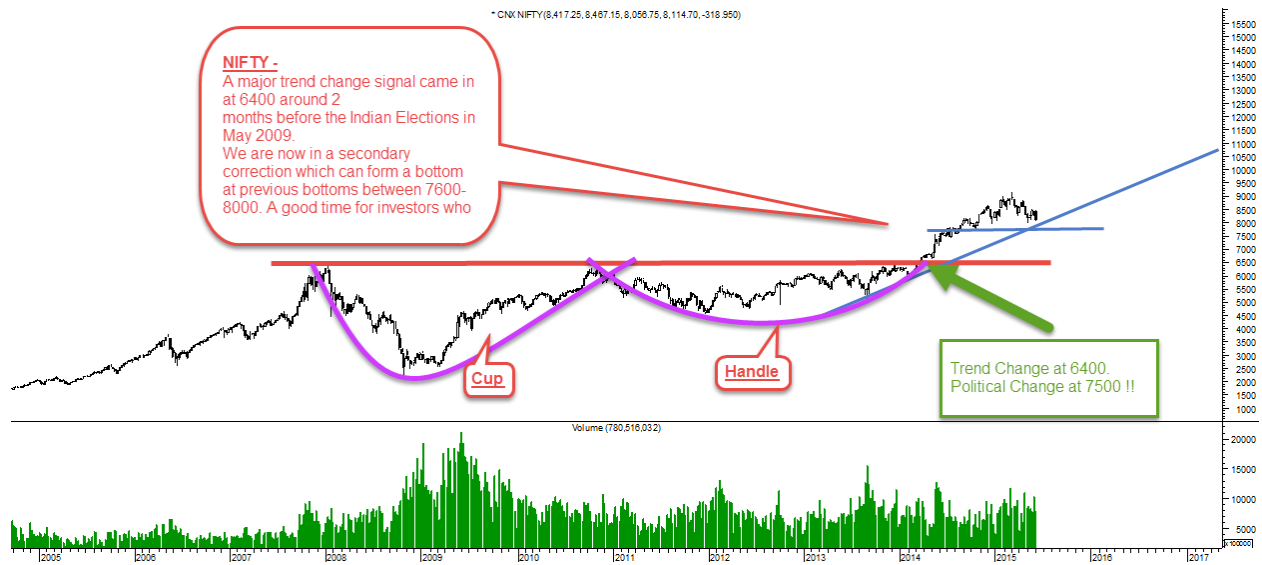
One of the major criticism of Dow Theory is it is late as it waits for an intermediate high to cross to signal a trend change and one can miss a good part of the move. For example Nifty on Dow Theory gave a buy signal at 3000-3100 against a bottom of 2600.

While Dow Theory may be able to form the foundation for analysis, it is meant as a starting point for investors and traders to develop analysis guidelines that they are comfortable with and understand.

There is a lot more to Technical Analysis in form of moving averages, patterns, indicators, momentum. Trading systems etc. For example in a few examples above have mentioned about the Cup and Handle Pattern.

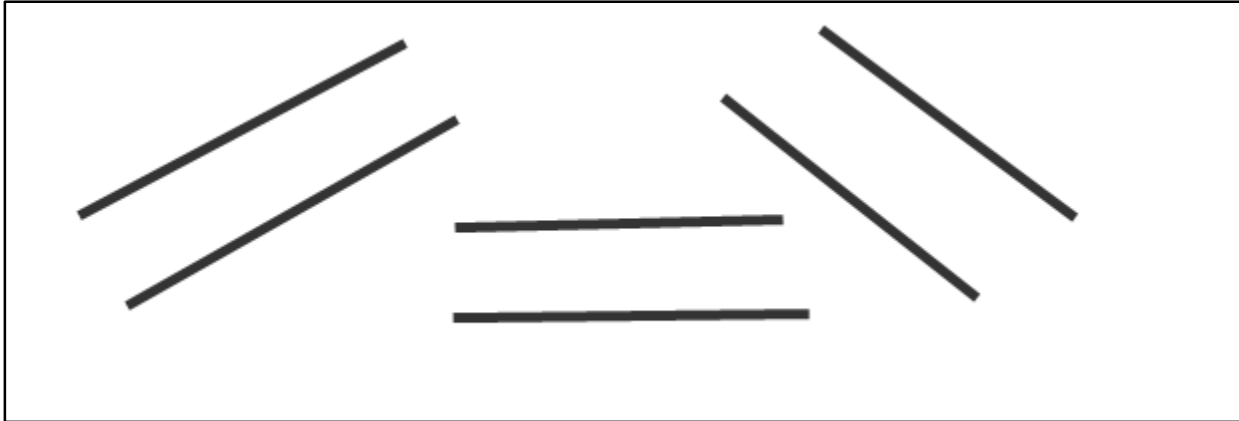
Technical analysis is an art form and the eye grows keener with practice. Study both successes and failures with an eye to the future.

Lastly let us look at Dow Theory Representation of Nifty at this point of time.



www.nooreshtech.co.in

## CHANNELS

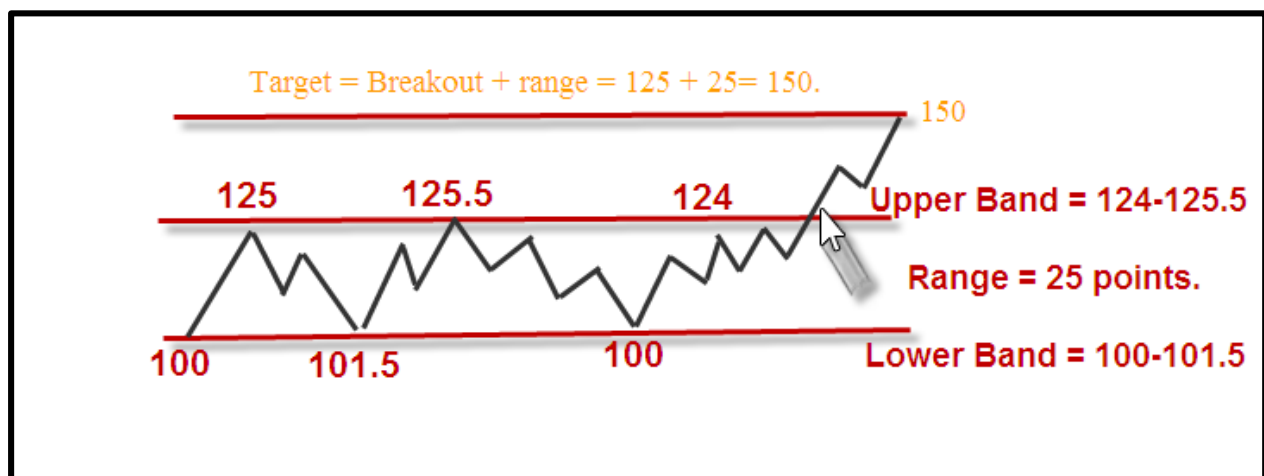


One example of channels in real life is the radio channels where a fixed frequency and bandwidth is given to a radio station. Similarly in technical analysis channels we have particular securities following price channels. Once you shift the radio from one bandwidth it goes to the next radio station with fresh songs and in the same way channel breakouts give you fresh moves.

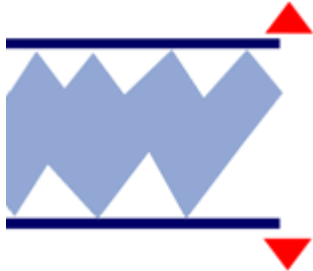
*A trend channel consists of a section of price bars that are between parallel support and resistance lines. The support lines are made by joining the bottoms and resistance line by joining a series of tops. At times the lines may not be exactly parallel.*

*The channels are classified according to the slope so there can be three types of channels: Narrow Sideways Channel, the Ascending Channel, and the Descending Channel.*

*The basic premise of a channel is the security or index will continue to trade in the band till we see clear evidence of a breakout. Once the breakout is confirmed the target price is equal to the range of the channel.*



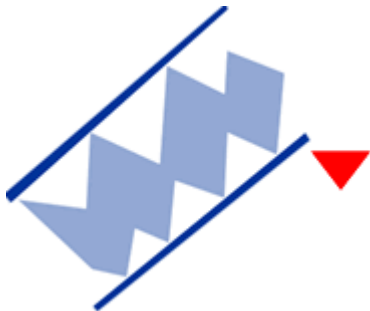
*Similar targets should imply for a breakdown below 100 in above picture giving a target of 75. A similar strategy cannot be used for ascending channels and descending channels. So we look into the possible trade actions for different type of channels shown by red arrows. Later we look into why not trade a breakout on ascending channel and a breakdown on descending channel.*



**Narrow Sideways Channel**

A Narrow Sideways channel is a formation that features both resistance and support with a sideways movement. Support forms the low price bar, while resistance provides the price ceiling.

To trade a Narrow Sideways channel, place an order to **buy** on a break up and out of the channel, or **sell** on a break down and out of the channel.

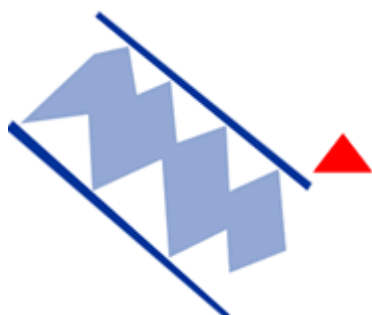


**Ascending Channel**

The Ascending channel is a formation with parallel price barriers along both the price ceiling and floor. Unlike the Narrow Sideways channel, the Ascending channel has an increase in both the price ceiling and price floor. The breaking of the bottom trend line on this formation shows a change in trend from bullish to bearish.

To trade an Ascending channel, place an order to **sell** on the break down and out of the channel.





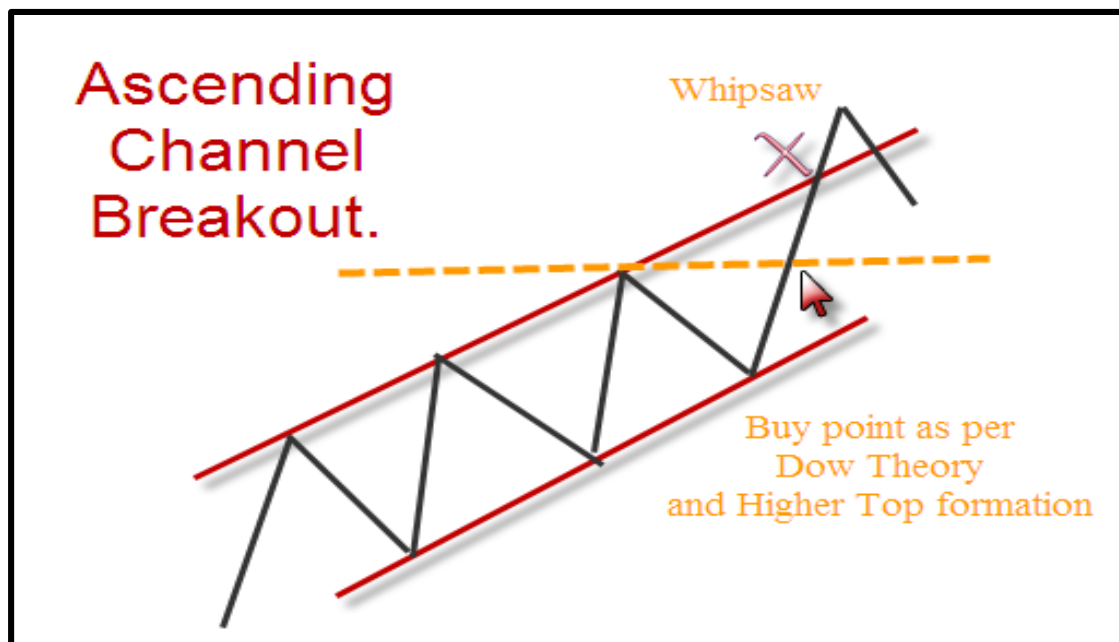
**Descending Channel**

The Descending channel is the exact opposite of the Ascending channel formation. The Descending channel has a decrease in both the price ceiling and price floor. The breaking of the top trend line on this formation shows a change in trend from bearish to bullish.

To trade a Descending channel, place an order to **buy** on the break up and out of the channel.

**Avoid buying breakouts in ascending channels and selling breakdowns in descending channels!!**

This is how an ascending channel breakout would end up at times being a whipsaw as well as it's a late entry even by simple Dow Theory which in itself supposed to be late in finding trends.



The same works for a descending channel where one needs to avoid breakdowns. At times avoiding such moves would imply missing parabolic moves which may be rare.

## Channel Breakouts

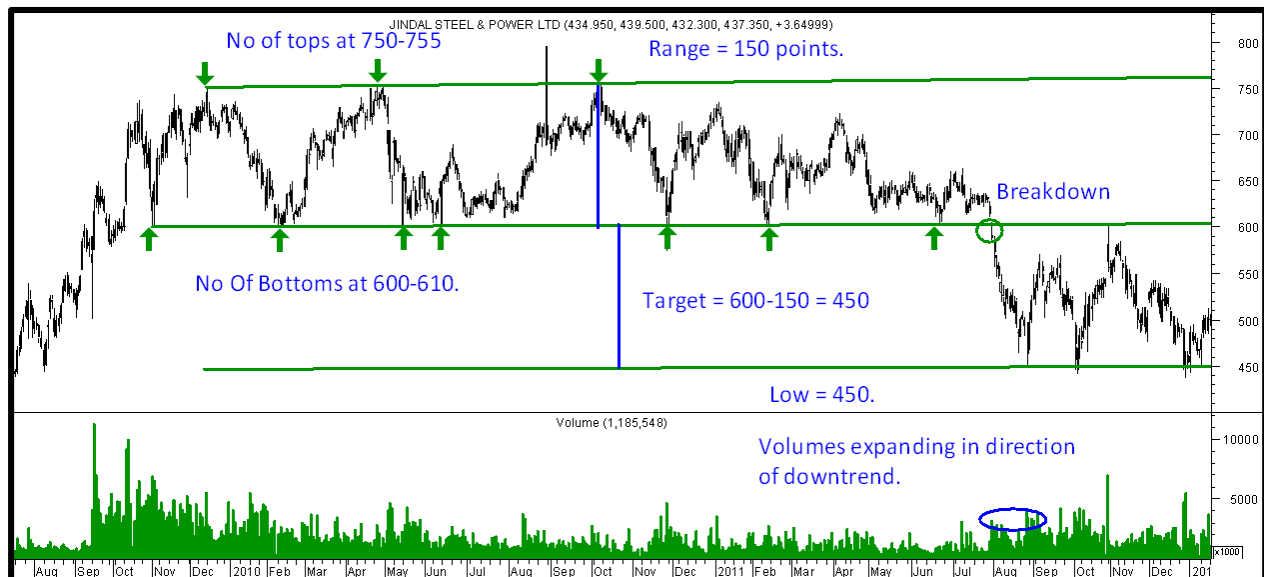
### 1) Sideways Channels

In any channel the following trades are possible. We rate the Best, Good and Avoid.

Possibilities	Preferred Trades
Sell on rise to upper end of the channel.	Good
Buy on dips to lower end of the channel.	Good
Sell on breakdown below the lower end of the channel	Best
Buy on breakout above the upper end of the channel.	Best

Sideways channels are the easier ones to trade as targets are simpler to calculate as well as price breakdowns. Also if combined with volumes the probability of targets being achieved quickly is very high.

Look at this chart of Jindal Steel and Power.



- ➔ For almost 18 months or so the stock was stuck in a range of 600 to 750.
- ➔ There are as many 6-7 bottoms or more closer to the 600 mark.
- ➔ The most preferred ways to trade this channel would have been.
  - a) Buy closer to the lower end of 600-620 with a small stoploss of 2-3 % and trade for bounce back.

- b) Sell around 730-750 with a small stoploss of 2-3 % and ride the way down.
- c) The best trade would be on breakout beyond the range of 600 or 750.

A sell/buy would be generated whenever the range is broken by 2% or more and take the reverse trade. After being stuck in the range for 18 months the stock broke down below 600 in July 2011.

- ➔ As the range is 150 points. Target price =  $600 - 150 = 450$ .
- ➔ The target projection a good 20% or lower.
- ➔ Volumes picked up in direction of the downtrend adding to the evidence of breakdown.
- ➔ With large volumes and strong price action the targets priced were achieved very quickly in less than a month's time.

Look at this example of a channel breakout in LIC Housing which gave a quick move of 40 points from the breakout levels of 240.



The band of 240-235 now has become a support for this counter for many weeks and a new channel of 230-280 has been formed for the stock.

#### Things to Note:

- ➔ The price projections and breakdown evidence has simpler rules but one cannot give a time projection for the target.
- ➔ As in construction of a building the foundation takes major part (Channel formation) the later part of the building will take only 30-50% of the total time. So in the same way if a channel is formed for 6 months we may expect targets to be achieved in less than 2 months ideally. There is no fixed rule but out of observation we find targets are achieved in  $\frac{1}{2}$  the time for securities.
- ➔ For the target one may take equivalent to the size of the channel and a little lesser as we cannot get exact moves like the one shown above. Combining with trend following for trailing stoplosses is also advised.

## 2) Trading Ascending Channels.

In ascending channel the possible trades can be as follows.

Possibilities	Preferred Trades
Sell on rise to upper end of the channel.	Avoid
Buy on dips to lower end of the channel.	Good
Sell on breakdown below the lower end of the channel	Best
Buy on breakout above the upper end of the channel.	Avoid

- ➔ The reason to avoid selling at the higher end of the channel is in ascending channels it's a clear higher top higher bottom formation and trend is up. Why take a trade against the trend.
- ➔ The reason to avoid a breakout of the ascending channel is one is late into the trend as per Dow theory which suggests to buy on a newer high.

Look at this ascending channel in ACC. How buying the dips to the lower end of the channel worked brilliantly, but so did selling on higher end of the channel apart from the two whipsaws recently. The reason to avoid buying breakout from ascending channel is if it whipsaws and a trader does not keep stoplosses the stock/index can end up back to the lower end of the channel and maybe even lower. A risky trader may take a risk to go short around higher end of the channel with strict stoplosses or take a trade post a reversal signals on candlesticks or moving averages.



Until now we have seen the example of how buying the dips in ascending channels keep giving excellent trading opportunities. But I believe the most preferred trade as well as a strategic shift is seen when ascending channel breakdown. Whenever that happens we see a change of trend which may go much much beyond the target price.

In this chart of Axis Bank and the ascending channel breakdown in November 2011 led to a multi-month correction much beyond the size of the channel.



➔ Also notice that all through 2009-2010 buying at the lower end of the channel would have given many trading opportunities so would have selling at the higher end. It is preferred to buy the dips as the trend is up.

- ➔ The target was achieved very quickly but the breakdown gave a clear trend change signal much before the simple rules of Dow Theory.

This example below again shows a similar trend change in Punjab National Bank seen post the ascending channel breakdown. The next downward trend continues with a descending channel.



### 3) Trading Descending Channels.

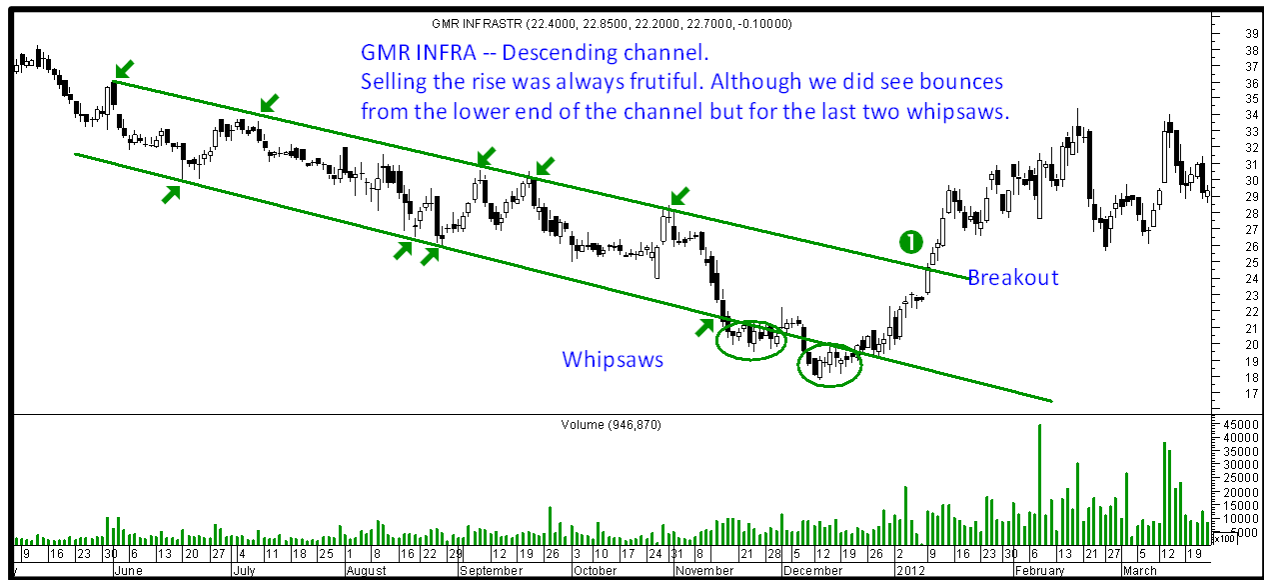
In ascending channel the possible trades can be as follows.

Possibilities	Preferred Trades
Sell on rise to upper end of the channel.	Good
Buy on dips to lower end of the channel.	Avoid
Sell on breakdown below the lower end of the channel	Avoid
Buy on breakout above the upper end of the channel.	Best

- ➔ The reason to avoid buying at the lower end of the channel is in descending channels it's a clear lower top lower bottom formation and trend is down. Why take a trade against the trend.
- ➔ The reason to avoid a sell on breakdown of the descending channel is one is late into the trend as per Dow Theory which suggests to sell on a newer low.

In the chart below of GMR Infra we can see a continuous downtrend in a descending channel. Selling the rise was always fruitful. On the lower side we did see bounces from the lower end of the channel but for

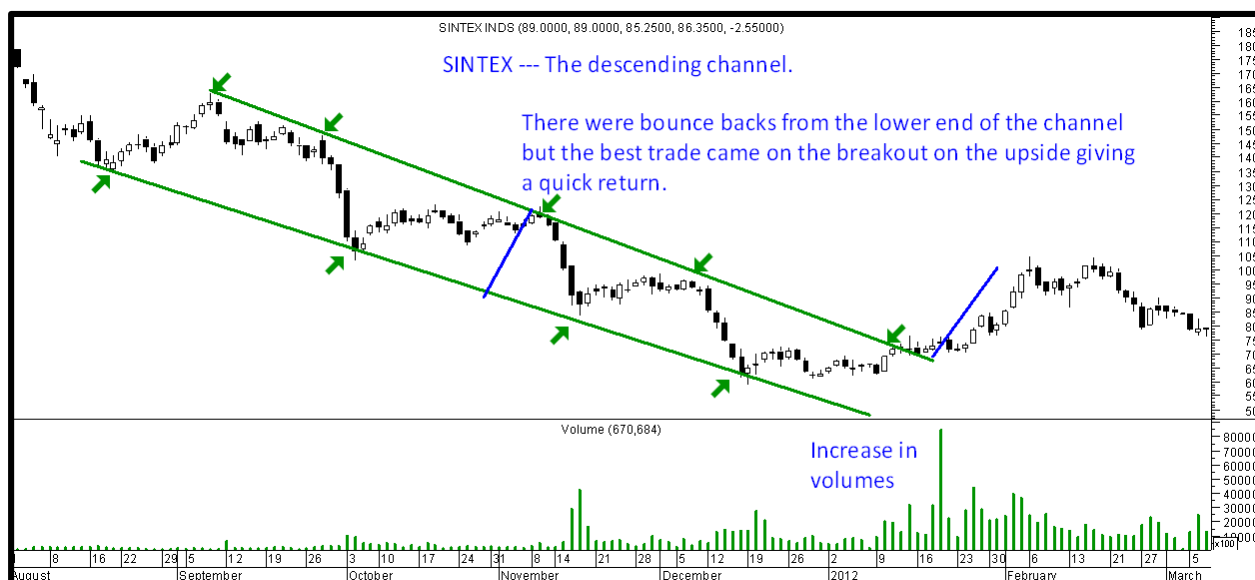
the whipsaw in the ending two stages.



Out here one would have really made some good returns on buying the dip with smart bear rallies. The only concern is it becomes very difficult to distinguish a whipsaw from a bear rally. A risky trader may wait for a candlestick or moving averages reversal signals to take a speculative buy after the test of the lower end of the channel.

[www.nooreshtech.co.in](http://www.nooreshtech.co.in)

In this chart of Sintex which is a mid cap company one can clearly see how big the swings were from the boundaries of the descending channel. Given the trend was down one can see the sharper downswings were after hitting the upper end of the channel. The best trade was on the breakout of the channel on upside giving a move from 75 to 100 which is a good 30%. The volumes added to the evidence.



Generally in Technical Analysis every pattern has a counter pattern which can be traded exactly in an inverse manner. But when we come to Descending channels we need to be careful because.

➔ In any markets the panic falls are generally faster than rallies. Just like an analogy to building a building it takes months to make a skyscraper but one blast is enough to pull it down.

So when we see a descending channel give a breakout on upside we may not see a sharp reversal on upsides giving major trend changes. By experience we see a U or W shaped recoveries and not V.



### Trading descending channels in Indices

Generally with a single security we can have big and wild moves so one needs to be extra careful going against the trend. Indices are generally composed of a group of stocks and it is less susceptible to wild moves as we may not expect the magnitude be huge in all the stocks in the index.



So in such cases descending channels actually are good points to look for a panic reversal and one may actually have a lower risk getting into the lower end of the descending channel. The best two possibilities are increase exposure to the index on lower end of the channel and reduce exposure at the higher end of the channel. On breakout of the channel one may look for speculative moves in the broader markets.

Look at this example where one would increase equity exposure at bottom of descending channel and cashing out on higher end of the channel would have been very profitable. As we notice the channel breakout targets were not achieved. But now we are in a process of U/W shaped recovery.



Although a breakout from the descending channel does not always materialize into targets but it clearly gives a signal of the major downtrend will now shift to sideways and form U or W shaped reversals. Also the channel breakout levels will provide support which was seen with two dips holding the channel.

Descending and Ascending channels work brilliantly on long term charts which can be for a time period of 10-30 years also.

Here if we look into the Dow Jones industrial average the bottom of 2009 was at exactly the lower end of the channel. The chart below is as was posted on my website in 2009. Internal channels also shown.



This is what happened post the bottoming out.



The breakout of the descending channel gave a signal of a major trend change which led to the secular rally of 2009-2011. If someone would have increased exposure to equities as an investor in 2009 at bottom of descending channel would have been handsomely rewarded over the next couple of years. The broader markets started performing post the breakout above the channel.

### Avoidable Jargons / Patterns

Channel as such gives us a very good idea of the trend of the market as well as excellent entry and exit points provided one uses it along with other evidences.

Majority of the technical patterns and even Dow Theory are based to get into a trending market or post a momentum breakout. There are very few technical studies which try to focus on getting entry at the bottoms as well as to exit on the top of a rally. Majority of the time we are looking towards trend following and getting into the best part of any rally.

As we have seen in a few examples of how one can catch exact bottoms which are low risk-reward entry points and also help in asset allocation strategies. In channels there will be whipsaws and false moves many a times. The ways to spot whipsaws is to look at the two important factors.

- 1) Slope of the Channel.
- 2) Number of attempts and time difference between attempts at the channel.

**1) Slope of the Channel.**

Higher Slope in Ascending Channel.	Breakdowns to be sharp and sell the rise to channel.
------------------------------------	--

Higher Slope in Descending channel.	Sharp Bear rallies on breakouts and buy the dip to channel.
-------------------------------------	---

Higher the slope of the channel better the chances of a quick bear rally to the channel targets but it may not necessarily lead to a total trend change. Steep sloping channel breakouts are more of momentum breakers which will lead to a sideways or lower momentum before giving a total trend change.

Look at this chart of Union Bank. The first channel breakout gave the targets in short term but again a slow downtrend started with a descending channel and a lesser slope. The next we may now form a sideways range before a major trend change.



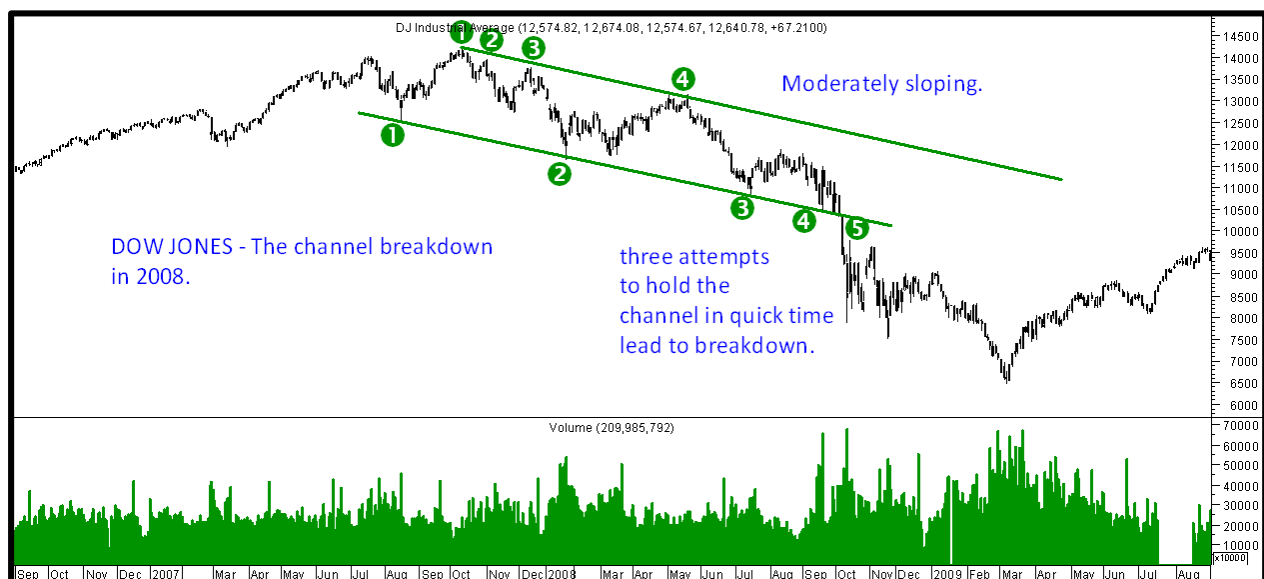
The slope only dictates the momentum in the trend. So steeper slopes will give good short term moves but one may quit the position on target projection as it may not confirm a trend change.

The chart below of Nifty in the bull move of 2007 should many quick corrections on ascending channel breakdowns but the long term trend did not change and new highs kept coming.



## 2) Number of attempts and time difference between attempts at the channel.

The relation could be as below. If you hit a nail on the wall the first few attempts just lead you nowhere but after that it becomes easier to nail the wall. In the same way a support or resistance at channel is difficult to be broken at the first few attempts and every next attempt increases probability of a breakout/breakdown.



In the above case it's a descending channel and generally one tends to buy the dip in indices. In above case the quick attempts three times would make one a bit doubtful of buying the dip again and again. Even if one has done an entry a stop loss should be in place!! Else one can get badly hurt. So what ever is the probability or power of the pattern it can go wrong and if one accepts it faster lesser it hurts.

This is another example of almost a sideways channel and how 3 successive attempts at the channel lead to a strong breakout move.



The move completed the target price very fast. Also the channel continued to provide support to any corrections post it and gave solid bounce backs as well before breaking down at the third attempt.

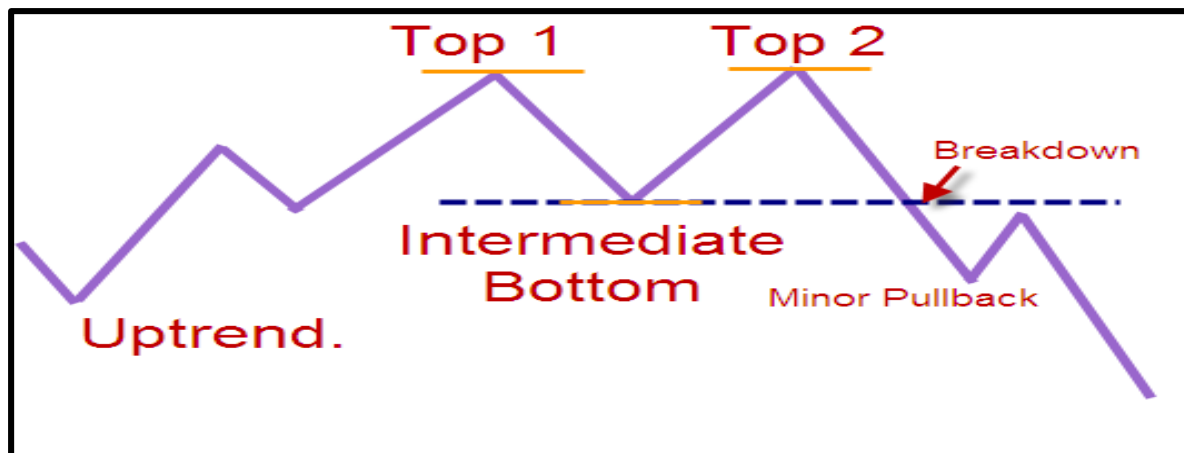
The best way to use channels is to incorporate all other technical studies like Indicators, Moving Averages, Candlesticks to refine the entry and exit points with other confirmations.

### Double Tops /Triple Tops and Double Bottoms/Triple Bottoms.

Double Top is a classical bearish reversal pattern to be seen on candlestick, bar charts. Double tops are to be seen generally after a good upward trend. The simple criteria for a double top are as below.

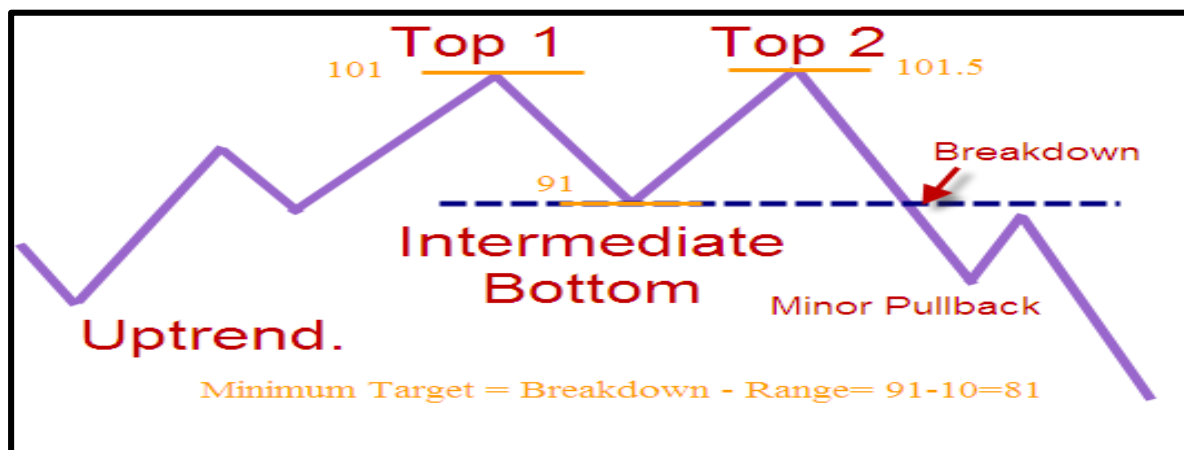
- ➔ Two peaks at almost the same price with a moderate trough in between.
- ➔ Lower Volumes on the second peak and a faster descent.

If the above two criteria is in place we can say it's a double top but the confirmation of the reversal can be done only when the intermediate trough bottom is broken with good volumes or faster descent. The illustration below will be more explanatory.



As it is seen we do not confirm a double top at TOP 2 but we wait for a confirmation of breakdown below the intermediate bottom. As there should be a decent range between intermediate bottom and TOP 2 we see a minor pullback post the breakdown. Once the minor pullback is done we see a strong correction.

**Target Projections:** The minimum target for a double top reversal is equal to the range between the intermediate bottom and the peaks. So in case the top is at 101 and bottom at 91 it will give a target of 81.



## Things to Note:

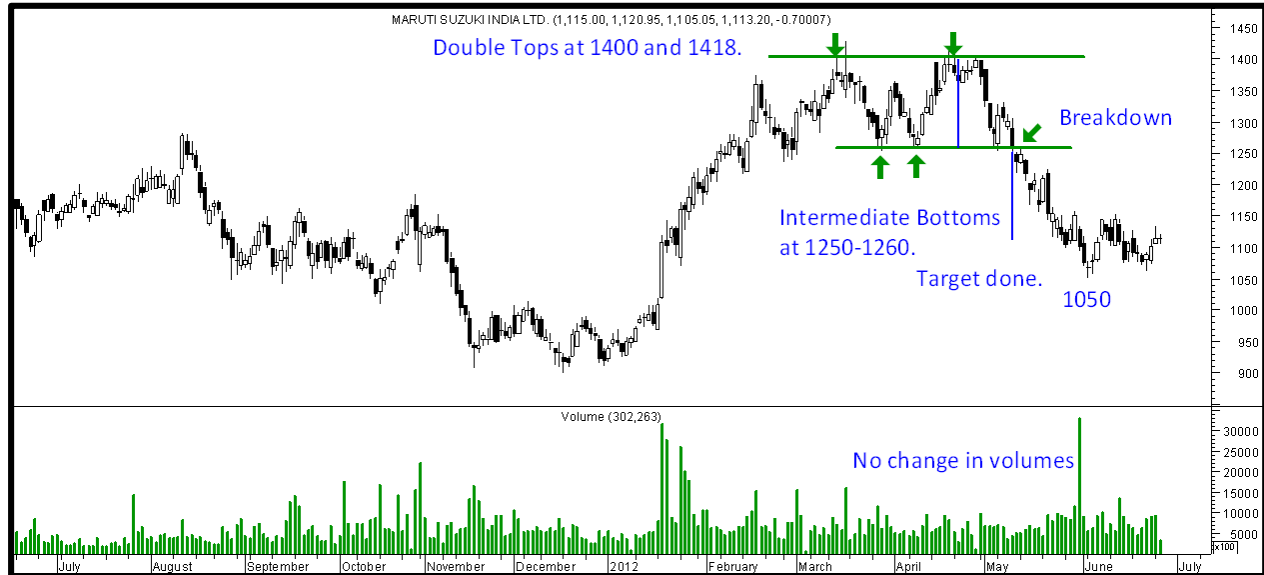
- ➔ The classical method suggests a time period of 3-4 weeks between the two tops but in current scenarios even a difference of 5-10 sessions would be minimum criteria for the double top. Also this double top method can be used for extremely short term time frames of minutes/hour also. The time period can also be weeks and months also but the most important part is the break of intermediate bottom.
- ➔ Never pre-empt a double top as if a stock has made a peak at 100 and dipped it is bound to find some resistance at 100 before going to 120. The biggest trading mistake is to short at previous tops.
- ➔ It is always suggested to look for double tops post a good preceding uptrend.
- ➔ Only initiate a short trade once the intermediate bottom is broken and be ready to see a bit of pullback before the actual fall begins.
- ➔ Although the target projections are limited to the range of top and intermediate bottom but a double top reversal pattern gives a major trend change also many a times leading to a slow and steady downtrend.

Given the fact that double bottom has become such a spoken about pattern and with lot of misconceptions we may better see it with a few examples.



- ➔ In the above example Larsen rallied from a low of 1500 to 1850 +.
- ➔ The stock made a top at 1868 on two candlesticks on Top 1 and another top at 1864.5 at Top 2.
- ➔ The intermediate bottom is at 1768. A breakdown below 1768 would give a target of 100 points i.e 1668.
- ➔ After the breakdown and two lower candlesticks we did see a white candle which is the minor pullback to breakdown level. Post that the slide started with good volumes and the stock ended up at 1500 much below our projected targets. It ended up at 1000 levels in next 6 months.
- ➔ The rise in volume post the second top continued to increase with the decline.

Below is a double top formation in Maruti.



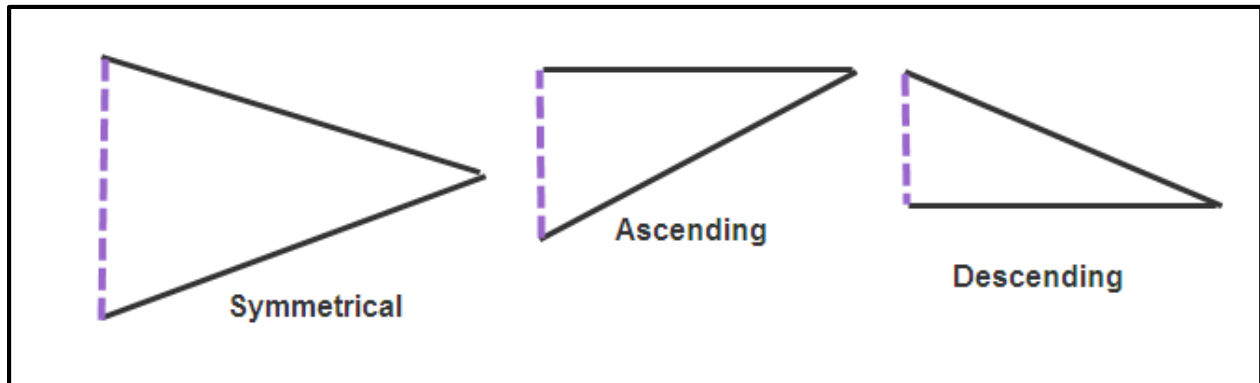
- ➔ If we look at the above chart we have double tops at 1400 and 1418 with an intermediate bottoms at 1250-1260.
- ➔ The breakdown below 1250 with a faster descent but volumes saw no major change.
- ➔ The price projection would be 150 points. This would give a target price of 1100. The stock hit a low of 1050 little more than the projected target.
- ➔ As we see in all cases we may not necessarily have an exact combination of breakdown and volumes or faster descent but price action is the real confirmation we would be looking for. The above double top could also be characterized as a sideways channel which would also give a similar target.

### Observations

- ➔ Many analysts and approaches would have some set rules of time period between two tops which could be 3-4 weeks and a minimum range between peak and bottoms to be 10-15% at least. Given the changing market conditions it would not be advisable to keep strict rules on the parameters but look at price and volume confirmations.
- ➔ Generally it is seen the falls are very sharp in a double top reversal and many a times it happens at intermediate market tops.
- ➔ The stop losses on a trading side should be kept at short term moving averages or according to the risk-reward ratio of 1:2.5 or 1:3 to the target projection.
- ➔ If there are consecutive tops like three to four tops only the name changes to Triple Top but the concept of intermediate bottom between the tops breaking and target price calculations remain the same.
- ➔ For a trader its preferred to focus on short term double top reversals which generally have 5-15 sessions in between the tops. Anything beyond 3 months would end up being more of a channel pattern.



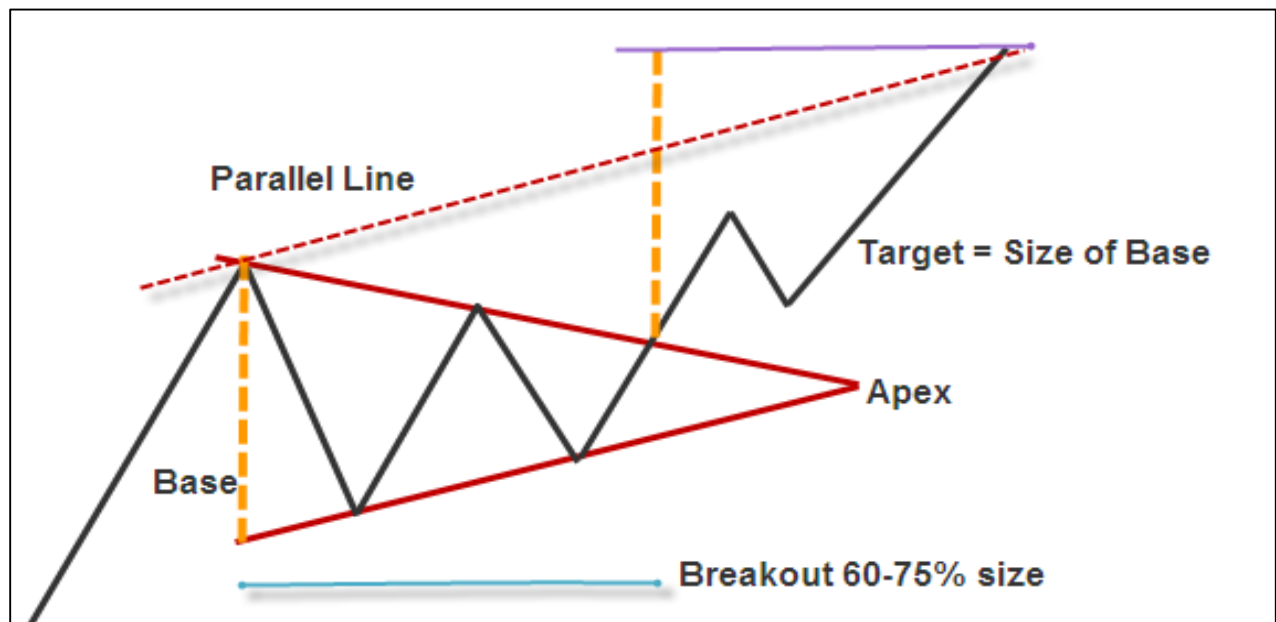
## Triangles



Triangles in technical analysis have one simple concept which is base of the triangle is on the left side and sides directed towards the right with the time axis. So the three simple types are Symmetrical, Ascending and Descending Triangles.

The major classification problem with triangles is whether it is a reversal pattern or continuation pattern. Majority of the times it is a continuation pattern but sometimes we do see triangle patterns on bottom or top reversals as well. As none of the patterns in technical analysis have a hundred percent accuracy in time and price we may focus on triangles to be continuation patterns. There are other patterns similar to triangles – rising / falling wedge and broadening triangle which are generally reversal patterns which we will cover in a different chapter itself.

### Symmetrical Triangle



1. **Trend:** In order to qualify as a continuation pattern, an established trend should exist. The trend should be at least a few months old and the symmetrical triangle marks a consolidation period before continuing after the breakout.
2. **Four (4) Points:** A triangle needs a minimum of 4 points. Two each on both trendlines. At times there can be 6 points or even more. More the points higher the accuracy of the breakout targets.
3. **Volume:** As the symmetrical triangle extends and the trading range contracts, volume should start to diminish. This refers to the quiet before the storm, or the tightening consolidation before the breakout. The breakout should be always accompanied with higher volumes.
4. **Duration:** The symmetrical triangle can extend for a few weeks or many months. If the pattern is less than 3 weeks, it is usually considered a flag/pennant. Typically, the time duration is about 1-3 months. At times it can even be seen on long term time frames so we may not constrict the pattern to a fixed time span.
5. **Breakout Time Frame:** The ideal breakout point occurs 1/2 to 3/4 (60-75%) of the way through the pattern's development or time-span. The time-span of the pattern can be measured from the apex (convergence of upper and lower lines) back to the beginning of the lower trend line (base). A break before the 1/2 way point might be premature and a break too close to the apex may be insignificant. After all, as the apex approaches, a breakout must occur sometime.
6. **Breakout Direction:** The future direction of the breakout can only be determined after the break has occurred. Sounds obvious enough, but attempting to guess the direction of the breakout can be dangerous. Even though a continuation pattern is supposed to breakout in the direction of the long-term trend, this is not always the case.
7. **Breakout Confirmation:** For a break to be considered valid, it should be on a closing basis but if the volumes have expanded in a big way in the day and a good enough 2% above the breakout point in the day one can consider it to be a confirmation. The reason to not wait for closing is nowadays we have a very liquid market and faster movements.
8. **Return to Apex:** After the breakout (up or down), the apex can turn into future support or resistance. The price sometimes returns to the apex or a support/resistance level around the breakout before resuming in the direction of the breakout.
9. **Price Target:** There are two methods to estimate the extent of the move after the breakout. First, the widest distance (Base) of the symmetrical triangle can be measured and applied to the breakout point. Second, a trend line can be drawn parallel to the pattern's trend line that slopes (up or down) in the direction of the break. The extension of this line will mark a potential breakout target.

The image above is very much self-explanatory. The example below will make it simpler and practical to understand.

## Symmetrical Triangle Formation in Jubilant Foods

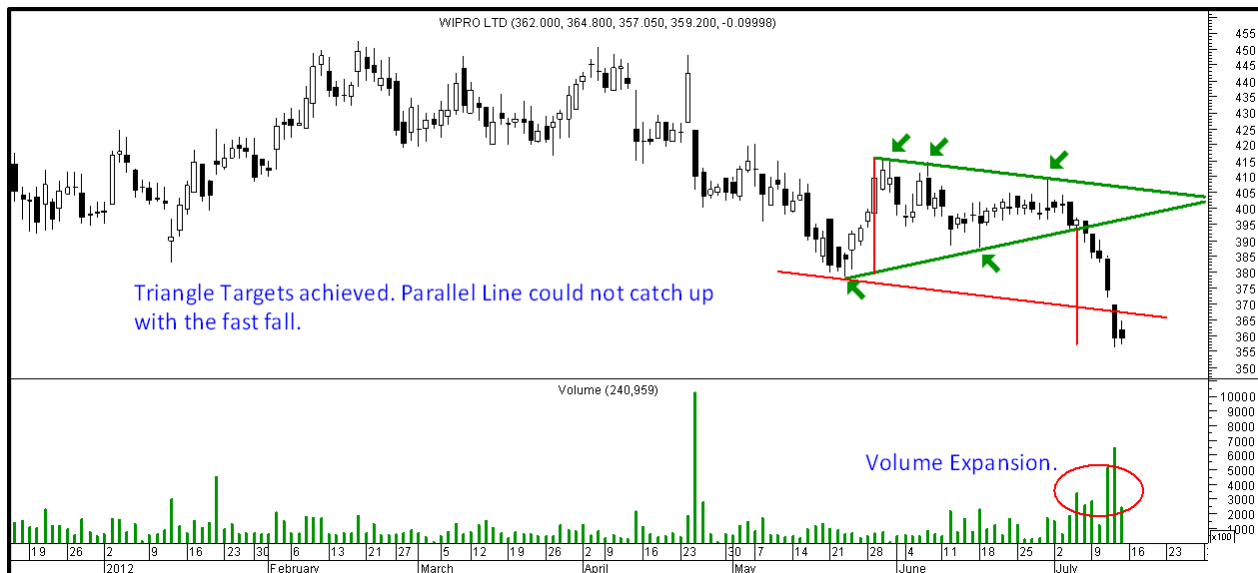


Let's describe the above example on the points mentioned.

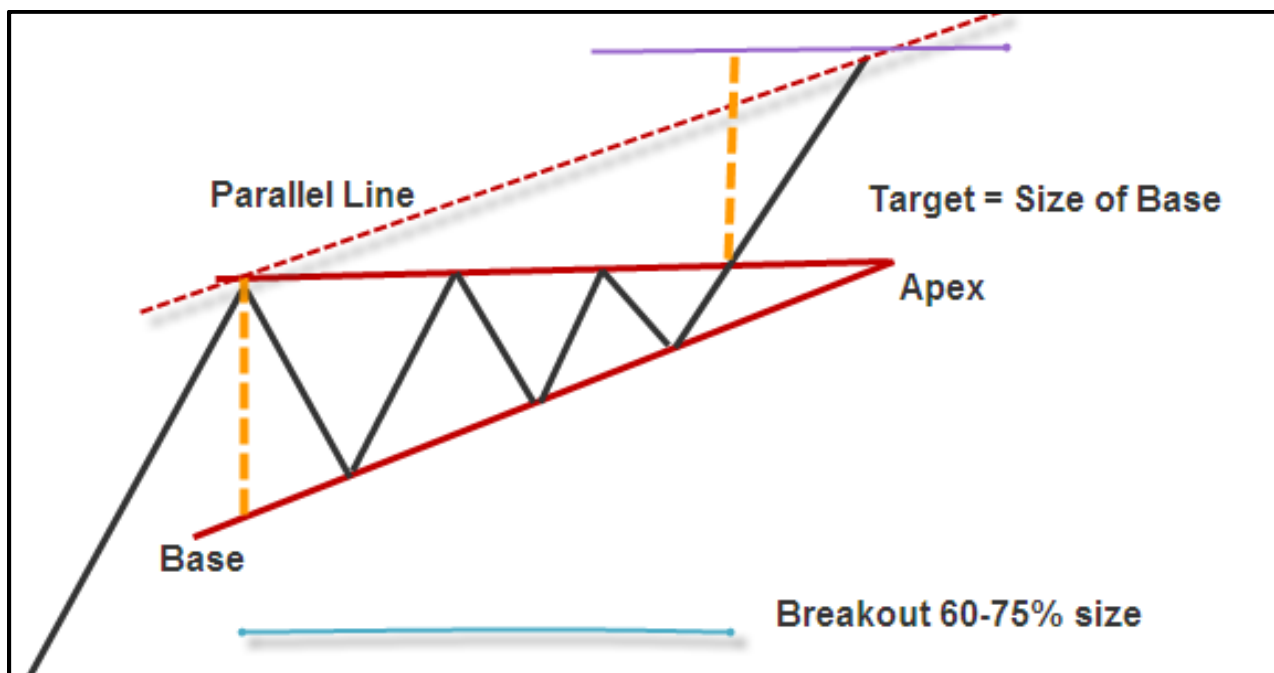
- 1) **Trend** - The trend here is not very clear in the start but as we said we will not restrict the pattern to only reversal or continuation pattern.
- 2) **Four Points** – In this there are 6 points shown with arrows with 3 on both sides.
- 3) **Volume** – The rise from 1<sup>st</sup> arrow is with high volumes and post that volumes diminish. The breakout did see a good volume expansion.
- 4) **Duration** – The duration of the pattern is around 4 months.
- 5) **Breakout Time Frame** – The breakout occurred around 70-75% of the time span as seen visibly. We don't need to be precise here.
- 6) **Breakout Direction** – The breakout was on the upside with expansion in volumes.
- 7) **Breakout Confirmation** – The stock closed above the breakout levels with better volumes.
- 8) **Return To Apex** – We did not see a return to apex and it rallied to the target levels.
- 9) **Price Target** – As seen from the chart the price target was achieved exactly.

### Target Price Computation

As seen in the example and explanation the two ways to calculate price targets – Parallel Line and Size of Base. In cases of fast moves post the breakout/breakdown the parallel line is not able to catch up to target points. The example of Wipro below shows that the price target was met in lesser time. The ideal thing is to look for the base of triangle as target. In the fall below how volumes also increase with the fall clearly in the direction of breakout.



### Ascending Triangle



The ascending triangle is a bullish formation that usually forms during an uptrend as a continuation pattern. Generally ascending triangles hint a good accumulation in the scrip before the breakout takes place. Also in this case the upper trendline is mostly horizontal spotting a breakout becomes easier.

1. **Trend:** In order to qualify as a continuation pattern, an established trend should exist. The trend should be at least a few months old and the ascending triangle marks an accumulation before the next directional breakout takes place.
2. **Four (4) Points:** A triangle needs a minimum of 4 points. Two each on both trendlines which in this case would be horizontal and ascending trendline. At times there can be 6 points or even more. More the points higher the accuracy of the breakout targets. One important thing out here is the lows should be higher than previous bottom if not the pattern is considered invalid.
3. **Volume:** In ascending triangle the pattern continues to be higher bottoms and volumes need not die down totally. Also in breakouts it's not necessary to see a large expansion in volumes.
4. **Duration:** The ascending triangle can extend for a few weeks or many months. If the pattern is less than 3 weeks, it is usually considered a flag/pennant. Typically, the time duration is about 1-3 months.
5. **Breakout Time Frame:** The ideal breakout point occurs 1/2 to 3/4 (60-75%) of the way through the pattern's development or time-span.
6. **Breakout Direction:** As it's considered to be a bullish formation the assumed direction is up. But there are certain instances when we see a breakdown of the ascending triangle which at times can be false moves. It's not advised to pre-empt a breakout of ascending triangle.
7. **Breakout Confirmation:** For a break to be considered valid, it should be on a closing basis but if the volumes have expanded in a big way in the day and a good enough 2% above the breakout point in the day one can consider it to be a confirmation. The reason to not wait for closing is nowadays we have a very liquid market and faster movements.
8. **Return to Apex:** After the breakout (up or down), the apex can turn into future support or resistance. The price sometimes returns to the apex or a support/resistance level around the breakout before resuming in the direction of the breakout.
9. **Price Target:** There are two methods to estimate the extent of the move after the breakout. First, the widest distance (Base) of the symmetrical triangle can be measured and applied to the breakout point. Second, a trend line can be drawn parallel to the pattern's trend line that slopes (up or down) in the direction of the break. The extension of this line will mark a potential breakout target. We may prefer to use the base of triangle as the target calculation method.

The image above is very much self-explanatory. The example below will make it simpler and practical to understand.

## Ascending Triangle Breakout - Grasim



- 1) **Trend** - The trend here is clear with higher tops and higher bottoms.
- 2) **Four Points** – In this there are 7 points shown with arrows with 3 on the horizontal line and 4 or more on the ascending trendline.
- 3) **Volume** – The volume did expand on the upside and one can also notice that every move from the lows to horizontal line is also with good volumes.
- 4) **Duration** – The duration of the pattern is around 3 months.
- 5) **Breakout Time Frame** – The breakout occurred around 75% of the time span as seen visibly. We don't need to be precise here.
- 6) **Breakout Direction and Confirmation** – The assumed direction is up and breakout did take place with expansion in volumes.
- 7) **Return To Apex** – The targets were achieved before returning to the apex.
- 8) **Price Target** – As seen from the chart the price target was achieved exactly.

### Breakdowns in Ascending Triangles

There are few instances of breakdown from ascending triangles at times when the pattern gets extended or there is no volumes support. This at times can be indication of the stock getting into a sideways consolidation. Very rarely is an ascending triangle a topping out formation. A variant like Rising triangle or Wedge is a topping out signal which we cover in the next section.

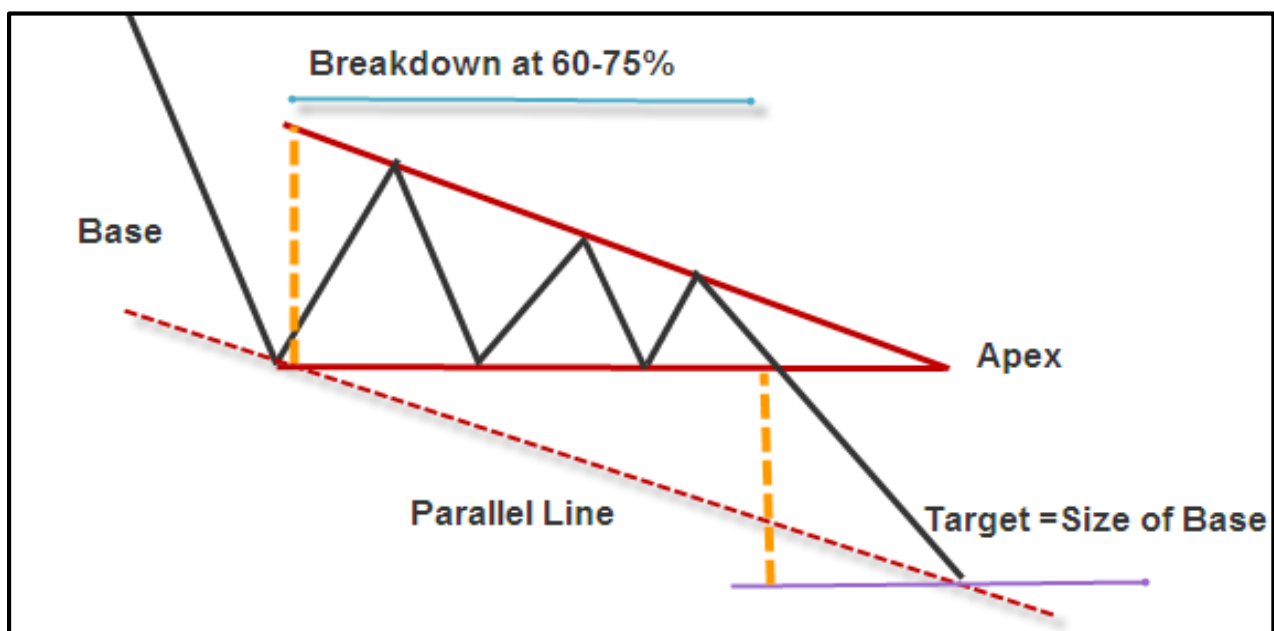
Trading breakdowns in ascending triangles is difficult as targets may not be achieved quickly as well as can many times be false moves. Main reason to look into breakdowns is so that we do not pre-empt an entry assuming an upward breakout.



One can clearly see a good ascending triangle being formed but instead of a breakdown the stock broke the ascending trendline. The breakdown did not result in a sharp fall with the stock going in a small range post the breakdown and the next move down also did not lead to targets. Again the stock is back around the breakdown levels. In case of ascending triangle breakdowns we may not see a sharp fall but more of a temporary consolidation in the longer term trend.

This is the reason one should not pre-empt a breakout and wait for confirming price and volume action as all possible patterns don't always lead to breakouts.

### Descending Triangle



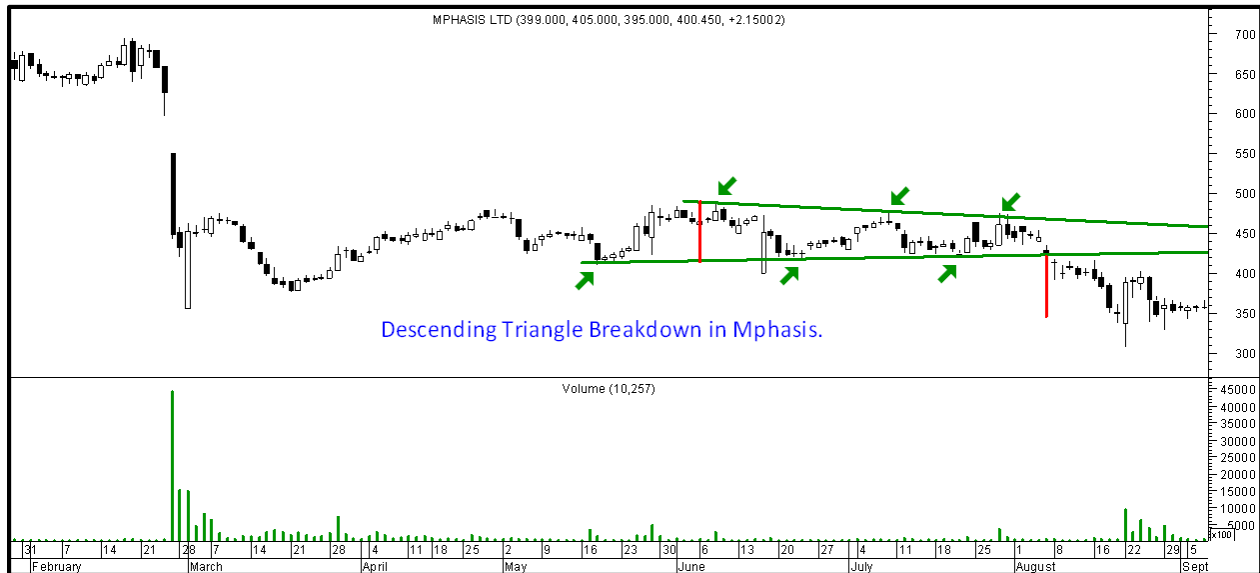
The descending triangle is a bearish formation that usually forms during a downtrend as a continuation pattern. Generally descending triangles hint a pause in the downtrend and consolidation before the next leg of downfall. With an almost horizontal trendline on the lower end the breakdown is easier to spot and sees sharp moves.

1. **Trend:** In order to qualify as a continuation pattern, an established trend should exist. As it's a downtrend and falls are faster we may not have a fixed period of established trend but magnitude of fall to be important.
2. **Four (4) Points:** A triangle needs a minimum of 4 points. Two each on both trendlines which in this case would be horizontal and descending trendline. At times there can be 6 points or even more. More the points higher the accuracy of the breakout targets. One important thing out here is the highs should be lower than previous highs if not the pattern is considered invalid.
3. **Volume:** In descending triangle the volumes should ideally be lower as with downtrends. Although a volume expansion on downtrend is preferred but not necessary.
4. **Duration:** The descending triangle can extend for a few weeks or many months. If the pattern is less than 3 weeks, it is usually considered a flag/pennant. Typically, the time duration is about 1-3 months.
5. **Breakout Time Frame:** The ideal breakout point occurs 1/2 to 3/4 (60-75%) of the way through the pattern's development or time-span.
6. **Breakout Direction:** As it's considered to be a bearish formation the assumed direction is down. But there are certain instances when we see a breakout on upside of the descending triangle which at times can be false moves. It's not advised to pre-empt a breakdown of descending triangle.
7. **Breakout Confirmation:** For a break to be considered valid, it should be on a closing basis but if the volumes have expanded in a big way in the day and a good enough 2% above the breakout point in the day one can consider it to be a confirmation. The reason to not wait for closing is nowadays we have a very liquid market and faster movements and cracks come in the day itself.
8. **Return to Apex:** After the breakout (up or down), the apex can turn into future support or resistance. The price sometimes returns to the apex or a support/resistance level around the breakout before resuming in the direction of the breakout.

**Price Target:** There are two methods to estimate the extent of the move after the breakout. First, the widest distance (Base) of the symmetrical triangle can be measured and applied to the breakout point. Second, a trend line can be drawn parallel to the pattern's trend line that slopes (up or down) in the direction of the break. The extension of this line will mark a potential breakout target. We may prefer to use the base of triangle as the target calculation method.



## Descending Triangle Breakdown in Mphasis



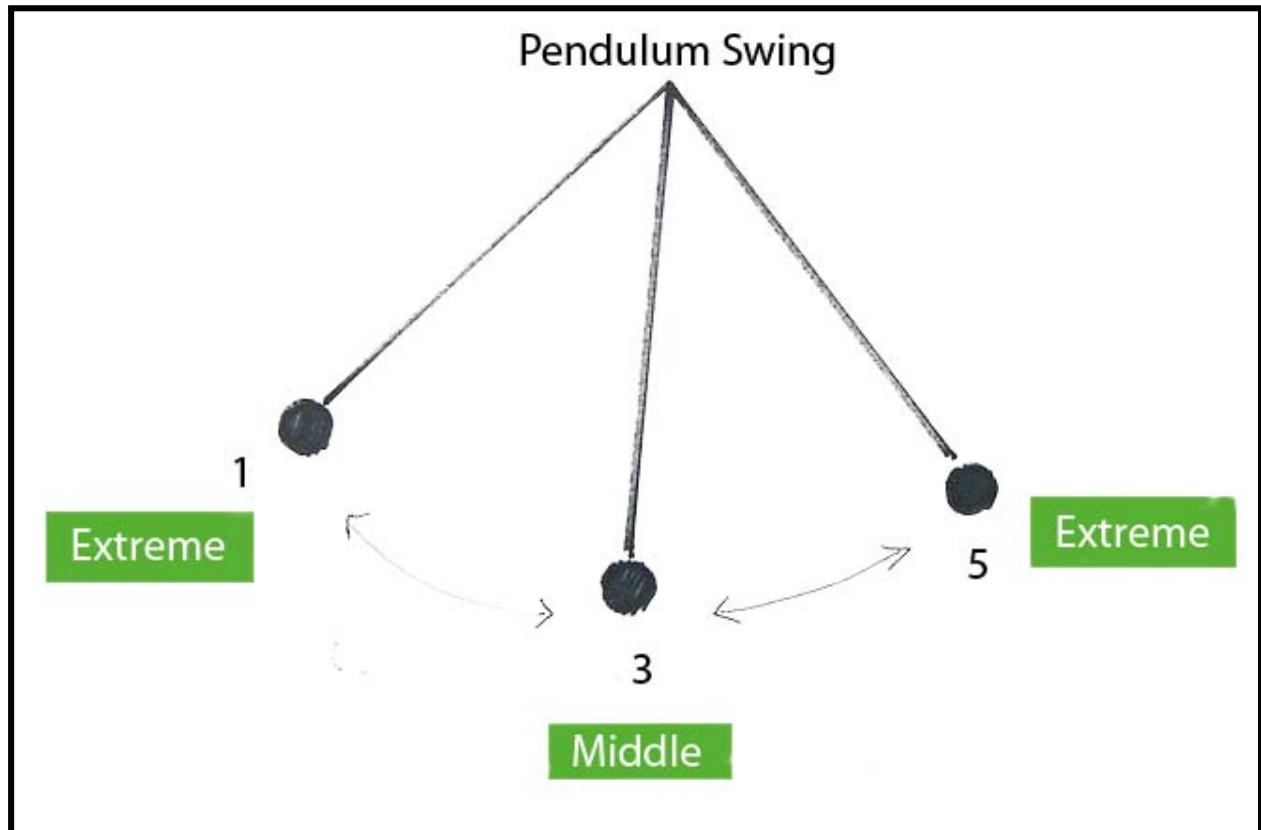
- 1) **Trend** - The trend here is clear with the big downmove seen few months back.
- 2) **Four Points** – In this there are 6 points shown with arrows with 3 on the descending trendline and 3 or more on the horizontal trendline.
- 3) **Volume** – The volume did not move in a big way post the breakdown but did so later.
- 4) **Duration** – The duration of the pattern is around 3 months.
- 5) **Breakout Time Frame** – The breakout occurred around 60 % of the time span as seen visibly. We don't need to be precise here.
- 6) **Breakout Direction and Confirmation** – The assumed direction is down and breakdown did take place with sustained closing below the trendline.
- 7) **Return To Apex** – The targets were achieved before returning to the apex.
- 8) **Price Target** – The targets were exceeded.

## Oscillators and Indicators

The biggest myth about technical analysis is that it is all about indicators and oscillators. They are just tools to help analyze the markets and not deciding factors all the time and one should use a combination of them. So as a warning just don't expect to get super trade setups by looking at one indicator or oscillator.

### Oscillators

First of all we need to understand that oscillators and indicators need to be used differently. An oscillator implies it will be repetitive over time like a pendulum.



In a pendulum there can be different extreme points and it can keep changing. The extremes are overbought and oversold conditions in terms of market movements. One thing to note is taking a trading call purely on oscillator is not advised and it should be used with trending indicators as oscillators can remain at the extreme ends for extended periods.

The simple things what an oscillator can be used for is.

- 1) Extreme oversold/overbought levels – This indicates although markets are in a downtrend/uptrend but any further extensions should be looked for reversal signals.
- 2) Divergence – If at the extreme end the price action and oscillator does not match is a very important signal for a possible trend change.
- 3) The middle point crossing can be used as a confirmation in the direction of trend.

- 4) One of the latest observations is historical extreme comparisons. For example 2008 crash compared to 2000 crash.

There are mainly two types of oscillators.

### 1) **Banded Oscillators**

Banded oscillators fluctuate above and below two bands that signify extreme price levels. The lower band represents oversold readings and the upper band represents overbought readings. These set bands are based on the oscillator and change little from security to security, allowing the users to easily identify overbought and oversold conditions. The general band is 0 to 100 in most of them.

RSI and Stochastics come in this category.

### 2) **Centered Oscillators.**

Centered oscillators fluctuate above and below a central point or line. These oscillators are good for identifying the strength or weakness, or direction, of momentum behind a security's move. In its purest form, momentum is positive (bullish) when a centered oscillator is trading above its center line and negative (bearish) when the oscillator is trading below its center line.

The most used ones are MACD and ROC

There have been various oscillators which have been developed, back tested over the last few years. But as mentioned before they should be used with a combination of indicators as well as price patterns for optimum usage. We will look into couple of banded oscillators which have worked well and continue to do so.

### **Relative Strength Index**

Developed J. Welles Wilder, the Relative Strength Index (RSI) is a momentum oscillator that measures the speed and change of price movements. RSI oscillates between zero and 100. Traditionally, and according to Wilder, RSI is considered overbought when above 70 and oversold when below 30. Signals can also be generated by looking for divergences, failure swings and centerline crossovers

Although one does not need to go very detail into the mathematics of how RSI is calculated but focus more on its applications but we may still look into the formula and logic behind it. Also RSI was formulated much before the computer age.

$$RSI = 100 - \frac{100}{1 + RS}$$

$$RS = \text{Average Gain} / \text{Average Loss}$$

The formula is broken into RS, Average Gain and Average Loss to simplify the explanation. The default period used is 14 as suggested by Wilder in his book.

The very first calculations for average gain and average loss are simple 14 period averages.

- First Average Gain = Sum of Gains over the past 14 periods / 14.
- First Average Loss = Sum of Losses over the past 14 periods / 14

The second, and subsequent, calculations are based on the prior averages and the current gain loss:

- Average Gain = [(previous Average Gain) x 13 + current Gain] / 14.
- Average Loss = [(previous Average Loss) x 13 + current Loss] / 14.

Taking the prior value plus the current value is a smoothing technique similar to that used in exponential moving average calculation. This also means that RSI values become more accurate as the calculation period extends.

The plot for RS and RSI is very similar but RSI formula turns into an oscillator which fluctuates between 0 and 100. This step of normalization makes it easier to identify the extreme points. RSI is 0 when the Average Gain equals zero and RSI is 100 when average losses equals zero. Very difficult to see a RSI getting close to 100 or 0 as we hardly get 14 days of nonstop moves.

#### Parameters

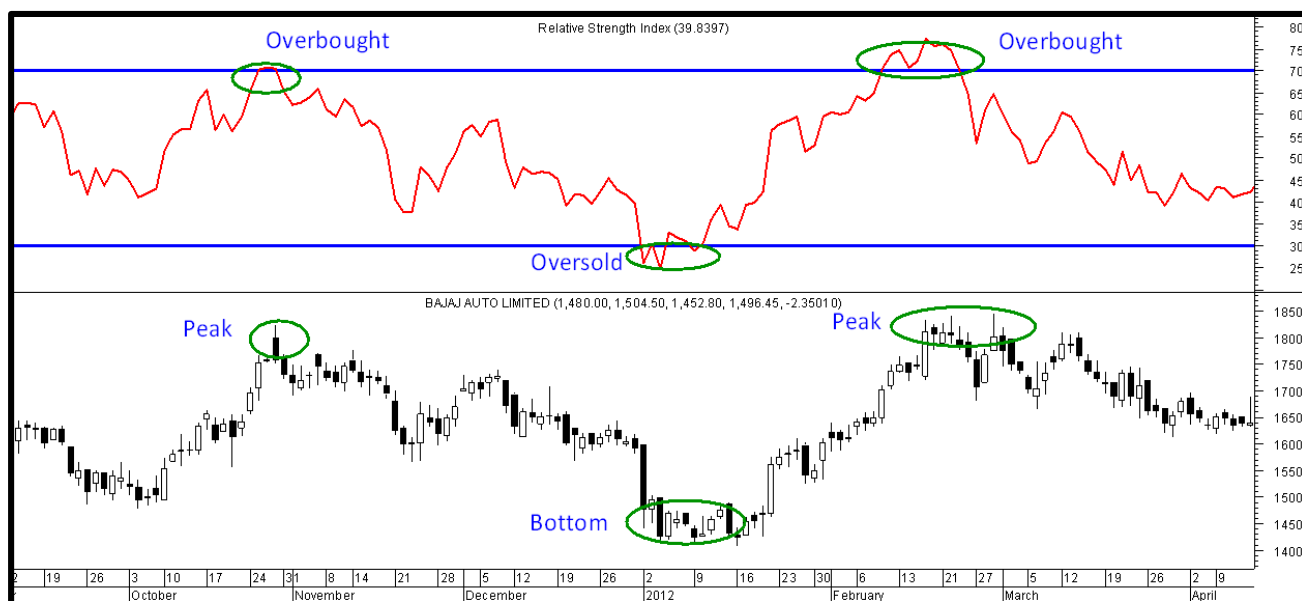
The default period is 14 and it is based on closing prices. Some people do try to use a 10 day or a 20 day period to increase or decrease the sensitivity. On back testing have found that 14 day period continues to give very good signals.

RSI is considered overbought when above 70 and oversold when below 30.

As mentioned before oscillators can be used for four interpretations.

- 1) Extreme oversold/overbought levels – This indicates although markets are in a downtrend/uptrend but any further extensions should be looked for reversal signals.

In the chart below of Bajaj Auto we can see the peaks and bottoms coincide with RSI extremes of overbought and oversold. The signals came in much before the stock bottomed or topped out.



As can be noticed the stock can remain oversold/overbought for many days before the next direction. This is precisely the reason one needs to wait for further technical confirmations or RSI divergences.

- 2) Divergence – If at the extreme end the price action and oscillator does not match is a very important signal for a possible trend change.

Now what do we mean by a divergence in RSI.

RSI is analogous to strength.

Every High = Higher Strength.

Every Low = Lower Strength.

So whenever the price movements and RSI movements diverge we call it as RSI divergences. There are mainly two types of divergences – Positive and Negative.

#### a) RSI positive divergence.

In a positive divergence price keeps making new lows but RSI makes higher lows which indicates the falling momentum is stalling and can reverse any time. This is to be seen whenever RSI is at the lower end or in oversold conditions.

#### b) Negative Divergence

In a negative divergence price keeps making new highs but RSI makes lower highs which indicates the rising momentum is stalling and can reverse any time. This is to be seen whenever RSI is at the upper end or in overbought conditions.

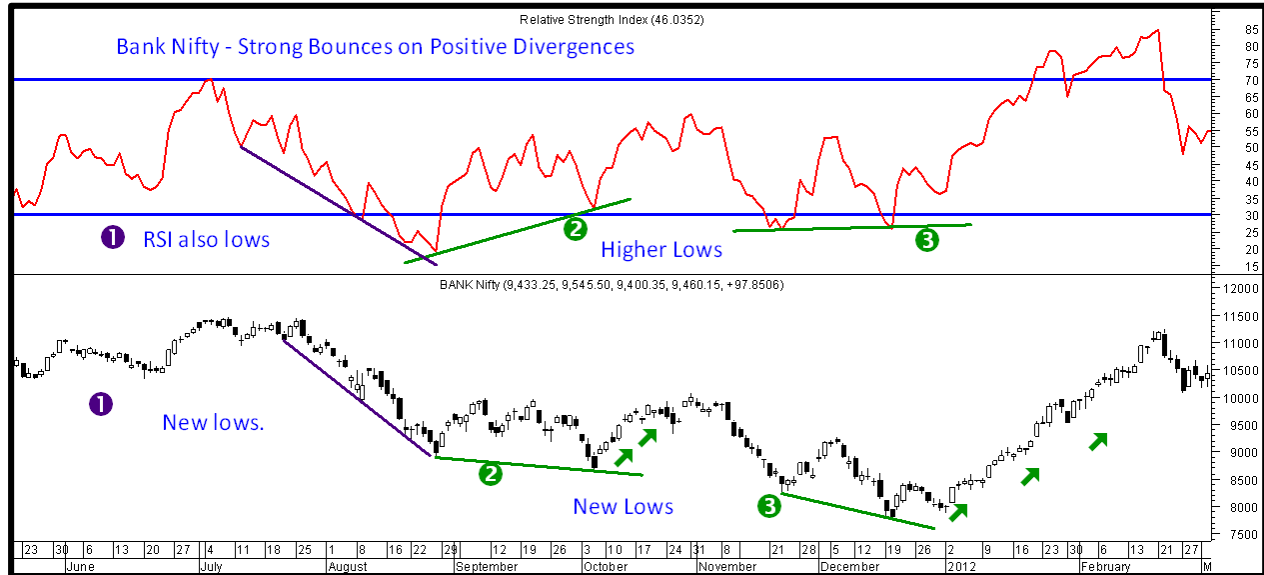
Now let's again look at the Bajaj Auto chart and how one can wait for divergence confirmations to initiate a long or short entry.



As one can see on the lower end the price kept making newer lows but RSI kept making higher bottoms indicating a clear positive divergence. After seeing 2 or more divergences one can initiate a buy position keeping a stop loss just below the recent lows. The buy entry point is shown by the green arrow.

Similarly on the higher side price kept making higher highs but RSI was making lower highs sharply indicating a clear negative divergence. The sell entry again is shown by the green arrow.

### Bank Nifty chart for 2011-2012 showing positive divergences.



This is a chart for Bank Nifty for 2011-2012 and how positive divergences gave smart pullbacks.

In the 1<sup>st</sup> instance as the Bank Nifty was dropping sharply RSI confirmed the action and there were no divergences.

In the 2<sup>nd</sup> and 3<sup>rd</sup> instance it can be clearly seen that newer lows on the price action was not confirmed by RSI as it made higher lows. Such positive divergence leads to sharp pullbacks.

But if we notice that in the 3<sup>rd</sup> instance it was a very big rally while in the 2<sup>nd</sup> the rally did move sharply but again made new lows. What we understand from the above example is RSI cannot give you the magnitude of the move but only a hint on the direction. So for price targets and momentum one may look for confirmations in technical patterns and other indicators covered later.

3) The middle point crossing can be used as a confirmation in the direction of trend.

As seen in previous examples that divergences may not necessarily give entry points and so we need some momentum indication to take an entry. The rules for buy/sell are:

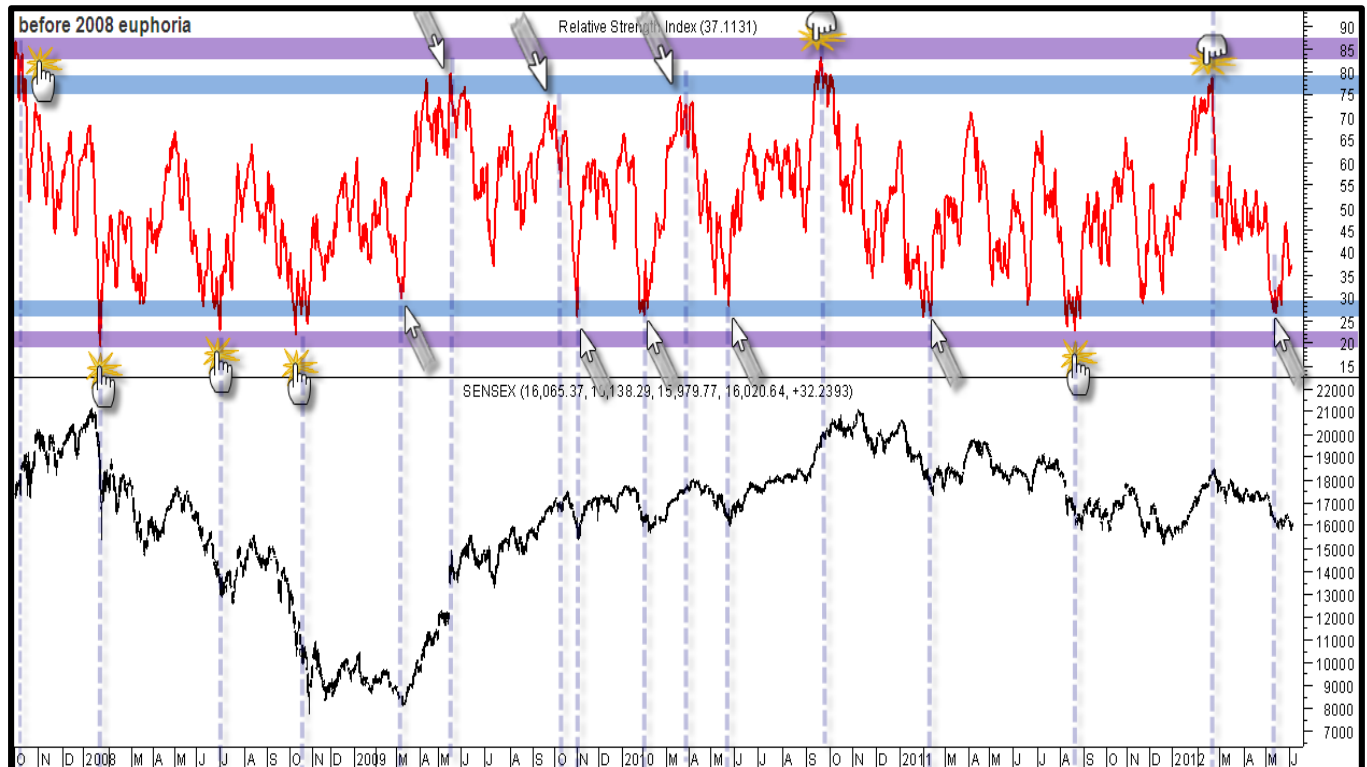
- 1) Buy, if falls upto 30 or below & rises above 35
- 2) Sell, if rises upto 70 or above & falls below 65

These can be used in totality with any oversold and overbought condition but gives lots of whipsaws. But if used post divergences can give good trades. The addition to this rule is buy post the divergence and 35/65 crossover with a stoploss of low/high and trail using a moving average or till it gets into other extreme. As the success ratio is low we may skip this as a trading setup.

4) One of the latest observations is historical extreme comparisons. For example 2008 crash compared to 2000 crash.

As we see in the formula for RSI it tries to compare average gains and average losses. Such a calculation may differ with every security. A good study is to make RSI bands looking at long history of the security. This strategy works extremely with indices. The two extremes in an index on RSI helps us also understand the sentiments also.

**Below is the 5 year chart of Sensex with major peaks and troughs.**



Conclusions:

- 1) Euphoria bands (Highly Overbought) – shown by thumb symbol and purple band.**
  - a) Highly Extreme euphoric sentiments and tops seen once RSI hits the 82-90 band ( October 2007, November 2010 )
  - b) The normal euphoric bands are closer to 75-80 ( February 2012 and many other intermediate peaks)
- 2) Pessimistic Bands (Highly Oversold) – shown by white arrows and blue band.**
  - a) Highly extreme pessimistic sentiments and bottoms seen once RSI hits the 20-23 band ( January 2008, September 2008 )
  - b) The normal pessimism bands are at 26-30 ( May 2011, March 2009)

The highly euphoric and pessimistic bands give very early signals with markets continuing the momentum. Like RSI indicated euphoria in October 2007 but markets topped out in January 2008 and



similarly a major pessimistic signal came in September 2008 but it bottomed out over the next few months in March 2009. Such signals were seen once in many years and whenever it is seen an investor may start increasing/decreasing equity exposure in the next few months. At the same time a trader may start getting cautious and look for trend reversal.

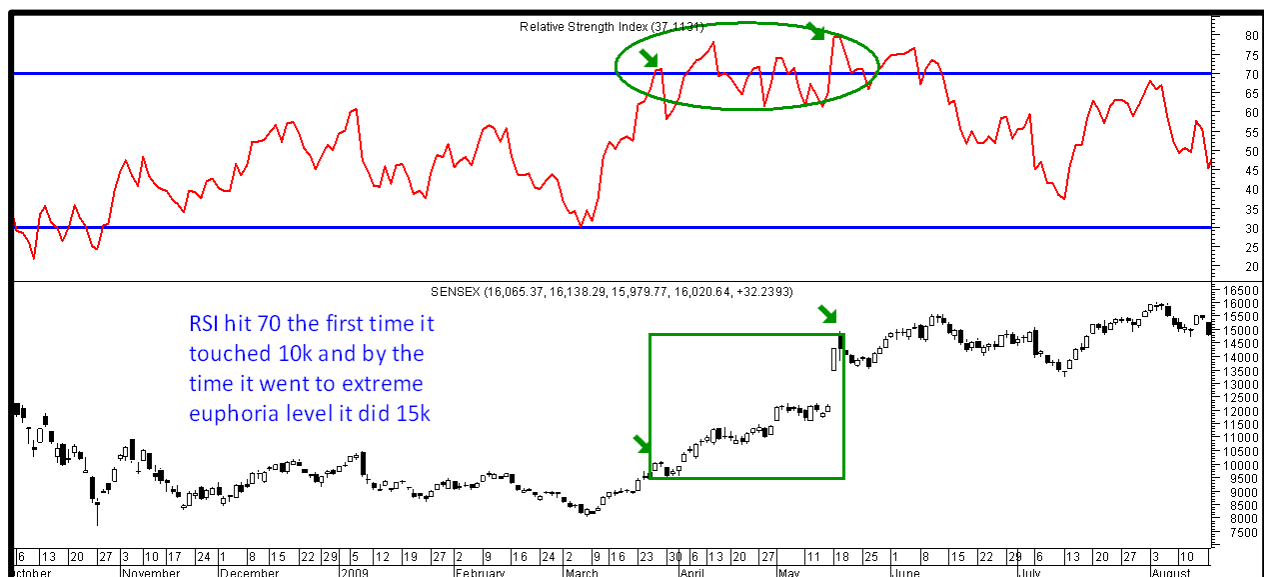
Apart from that the normal bands can be used for timing the entry and exits into the market with divergence confirmations.

For now in June 2012 it clearly indicates we have hit the normal band of panic and started giving positive divergences and one may now start increasing exposure to equities.

### **Avoidable jargon/patterns.**

RSI is one of the most used indicator and one which causes the maximum pain to the amateur trader. The general tendency of an investor/trader is to buy on lows or when a security is falling like a knife. Most important thing to note in RSI is securities can remain oversold and overbought for very long time and this most of the time happens in strong trends. Just because a security is overbought does not imply it to be a short sell.

Look at this strong trend of 2009 in Sensex.



Had you gone ahead and sold your holdings just because RSI hit 70 levels one would have missed a 50% rally in 2-3 months.

RSI is at times very early and very late to signal trends. RSI should be used for analyzing prevailing sentiments and trend confirmations more than to look for trade setups. Also RSI is one of the warning signals for an existing trade as it confirms whether the price momentum is still strong or not. This is one oscillator which will be a major edge to long term investors to strategize their cash allocations. As now

since August 2011 it gave an increase equity exposure and increase cash in February 2012 and now its indicating to strongly increase exposure to equities.

## **Author**

**Nooresh Merani**

09819225396

[www.nooreshtech.co.in](http://www.nooreshtech.co.in)

<https://twitter.com/nooreshtech>

<https://www.facebook.com/nooreshtech>

## **DISCLAIMER**

- As investment & trading consultants, Promoters, owners, families, relatives, friends and clients of [www.nooreshtech.co.in](http://www.nooreshtech.co.in) maybe having positions in stocks / securities mentioned on the web site
- All recommendations in this website are based on subject of Technical Analysis and do not reflect the fundamental validity of the stocks / securities. Authors / owners of Technical View by Nooresh will not be held responsible for any losses, financial or otherwise, incurred. To clarify, a 'user' is defined as anybody that visits <http://www.nooreshtech.co.in>, regardless of whether or not the have registered as a member of the website. 'Site' and the 'community' and '[www.nooreshtech.co.in](http://www.nooreshtech.co.in)' are used interchangeably and refer to the URL <http://www.nooreshtech.co.in> and all sub-domains. The administrators and owners of <http://www.nooreshtech.co.in> do not guarantee the reliability or completeness of any information provided on our site or in any hyperlink appearing on our site. Any advice or information presented on the site has not been verified by <http://www.nooreshtech.co.in> and does not represent the opinions of the same. Users of the site should not rely on the accuracy of any content on the site or assume any information they read on the site to be factual. <http://www.nooreshtech.co.in>, its administrators or owners will not be liable for any loss or damage caused by a user's reliance on any information obtained from our site, or from a hyperlink found on our site. Members remain responsible for their own investments and should always conduct their own independent research before making independent investment decisions. If you choose to trade on the information, including but not limited to opinions or stock picks found on <http://www.nooreshtech.co.in> or any hyperlinks found on the site, then you have made a conscious, willing, free and personal decision to do so, and <http://www.nooreshtech.co.in> does not take any responsibility for this action.
- By using <http://www.nooreshtech.co.in> you agree to be bound by the Terms and Conditions outlined below. If you don't wish to be bound by the Terms and Conditions then do not complete this registration, and do not use <http://www.nooreshtech.co.in> or any of its associated services. We (the administrators and owners of <http://www.nooreshtech.co.in>) reserve the right to change these terms at any time, but will post a notice in advance on this website of any material changes. Following an update being posted, your continued use of <http://www.nooreshtech.co.in> implies acceptance of the modified terms and conditions. All of the Content on <http://www.nooreshtech.co.in> remains the property of <http://www.nooreshtech.co.in>. By "Content" we mean any information or materials found on <http://www.nooreshtech.co.in>. The harvesting of data from our site via automated means of any type, without the prior permission of <http://www.nooreshtech.co.in> is forbidden, as is attempting to access our site by any means other than through the interfaces we provide for accessing the site. You may make one copy of Content for your personal, non-commercial use as long as it is clearly labeled with "Intellectual Property of <http://www.nooreshtech.co.in>. All rights reserved". Any other copying, distribution, storing, or transmission of any kind, or any commercial use of our Content, is

prohibited without <http://www.nooreshtech.co.in> prior written permission. You may not republish, post, transmit or distribute Content to online bulletins or message boards, blogs, chat rooms, intranets or anywhere else without our consent.

Notwithstanding the above, when you post Content, you do not surrender your copyright. You agree that <http://www.nooreshtech.co.in> has an unlimited and perpetual license to republish the Content. However, you retain the right to use your words, images and other copyrightable content however you wish.

We will always endeavor to ensure any content you publish is presented in context, and we'll credit you (under your user name) as the author. We won't republish your content in advertising without notifying you in advance and will not publish content in advertising if you instruct us not to.

- As a member of <http://www.nooreshtech.co.in>, you agree to behave honestly at all times and act for the benefit of the users of the site.

You, as a user of <http://www.nooreshtech.co.in> must not:

- Post content that is not your own, or that is harmful, irrelevant, nonsensical, obscene, abusive, solicitous, fraudulent, or defamatory.
- Misrepresent your true identity, motives and opinions
- Take any action that places an unreasonable strain or disrupts the functioning of the site and its services
- Copy the site's content without prior permission from <http://www.nooreshtech.co.in>
- Violate another member's privacy
- Violate any laws or regulations while using our site
- If you don't abide by the Code of Conduct, we will cancel your membership of the site.

▪

- We collect information about who our members are and how they use our site in order to provide our members with the best experience possible. Sometimes we may use the information to notify you of products, services, specific content, or areas of our site that we think may interest you. You can choose whether or not to receive these notifications by altering your privacy settings at any time by contacting us at [analyseindia@gmail.com](mailto:analyseindia@gmail.com)

Privacy whilst using the site

When you post content onto our site, that information, along with your screen name, is visible to the public. Please remember that any information you disclose can be collected and used by others. Other members can respond to your posts at any time but will not know your external email address or other contact details (unless you have disclosed it). <http://www.nooreshtech.co.in> cannot guarantee the security of any information you transmit to us, and you do so at your own risk. You are responsible for maintaining the secrecy of any password and/or account information. We will never ask you for your password in an unsolicited phone call or email. If you are using a computer to which others have access, such as one in a computer lab, Internet cafe, or public library, always remember to log out and close your browser window when leaving our site. If you follow links from our site to

others, you should be aware that you are doing business with those other sites, which have their own privacy and data collection practices. <http://www.nooreshtech.co.in> has no responsibility or liability for these sites.

Use of this site is subject to express [Terms & Conditions](#), [Code of Conduct](#), [Privacy Policy](#), and [Disclaimer](#). By continuing past this page, you agree to abide by these terms. Any information provided on <http://www.nooreshtech.co.in> should not be construed as research, trading picks or recommendations, or investment advice and is provided with no warrants as to its accuracy.

Company names, products, services and branding cited herein may be trademarks or registered trademarks of their respective owners. The use of trademarks or service marks of another is not a representation that the other is affiliated with, sponsors, is sponsored by, endorses, or is endorsed by <http://www.nooreshtech.co.in>

[www.nooreshtech.co.in](http://www.nooreshtech.co.in)