

TECHNICAL ANALYSIS



WHAT IS TECHNICAL ANALYSIS?

- Studying stock price graphs and a few momentum oscillators.
- Based entirely on prices
- Do not include Balance Sheets, P&L Accounts (fundamental analysis)
- The assumption being that the markets are efficient and all possible price sensitive information is built into the price graph of a security / index.
- Exclusive use of historical data.

ASSUMPTIONS OF TECHNICAL ANALYSIS

1. Market discounts everything

- Only considers price movements, ignores fundamental factors.
- Assumes stock price reflects everything.
- All fundamentals are priced into the stock.

2. Prices moves in trends

- Price movements are assumed to follow particular trend.
- Most technical strategies are based on this assumption.

3. History trends to repeat itself

- Market participants provide consistent reaction to similar market stimuli over time.

DOW THEORY

The Dow theory on stock price movement is a form of technical analysis.

The theory was derived from 255 wall street journal editorials written by Charles h. Dow , journalist, founder and first editor of *the Wall Street journal* and co-founder of Dow Jones and company.

Hypothesis:- Dow Theory is based on the hypothesis that the stock market does not perform on a random basis. Rather, it is guided by some specific trends.

Three types of specific trends have been named in Dow Theory

- **PRIMARY TREND:-** primary movement or major trend may last from less than a year to several years. It can be bullish or bearish.
- **SECONDARY TREND:-** primary movement or major trend may last from less than a year to several years. It can be bullish or bearish.
- **MINOR TREND:-** day to day trend or movements in prices over few days. It is of very short duration.

IYT

10 Jan 14

O:132.41 H:133.79 L:132.37 C:133.77

Vol:182.32K

+1.66 (1.26%)

@ finviz.com

SMA 50
SMA 200
SMA 20

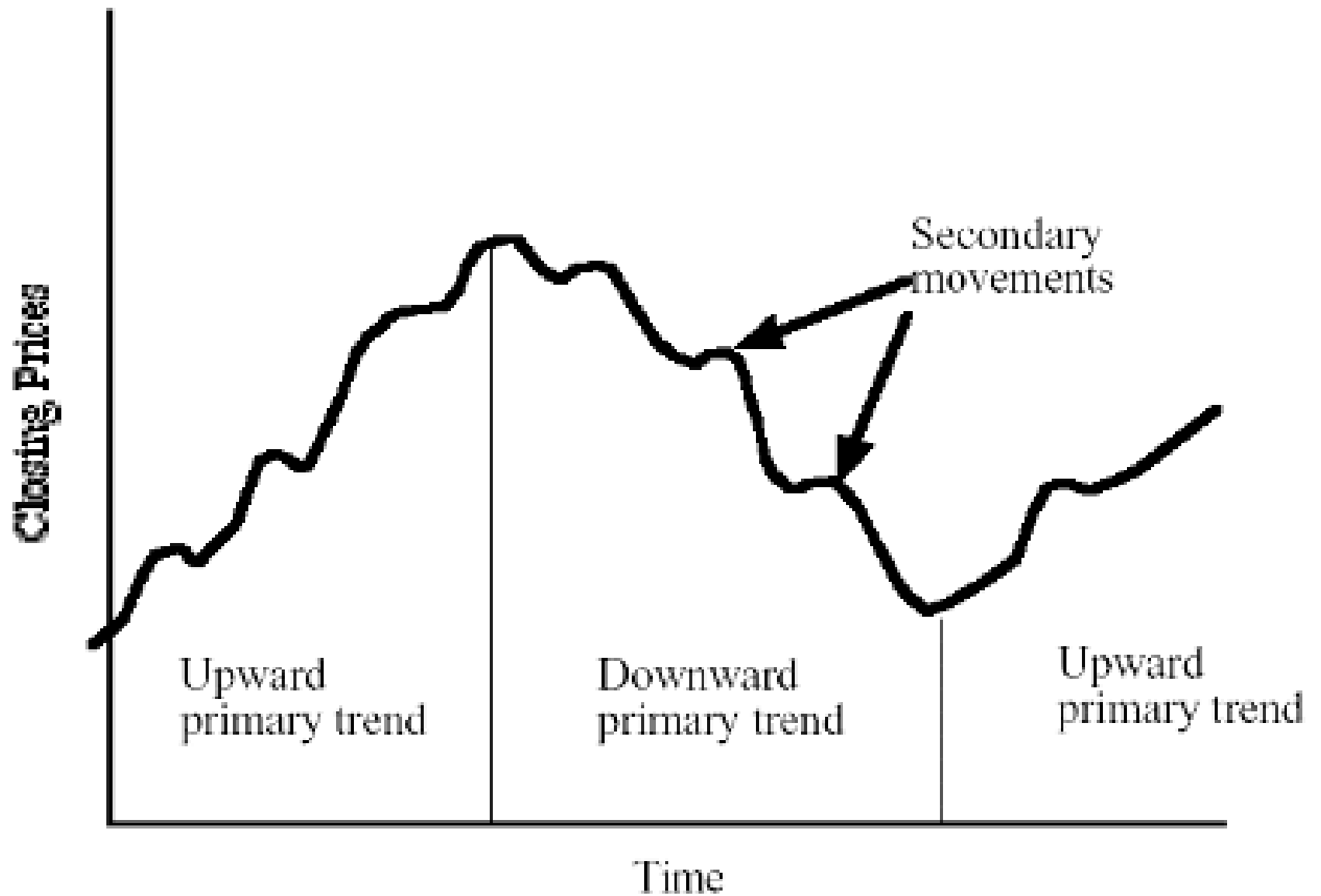
DAILY



IYT [NYSE]

iShares Dow Jones Transportation Average

Financial | Exchange Traded Fund | USA



BASIC ASSUMPTIONS

- Market price determined by demand and supply forces.
- Prices move in trend for long periods.
- Reversal or shift in price trends may occur.
- Charts and graphs can predict change in demand and supply forces.
- Price patterns tends to repeat themselves.

CHARTING : THE BASIC TOOL

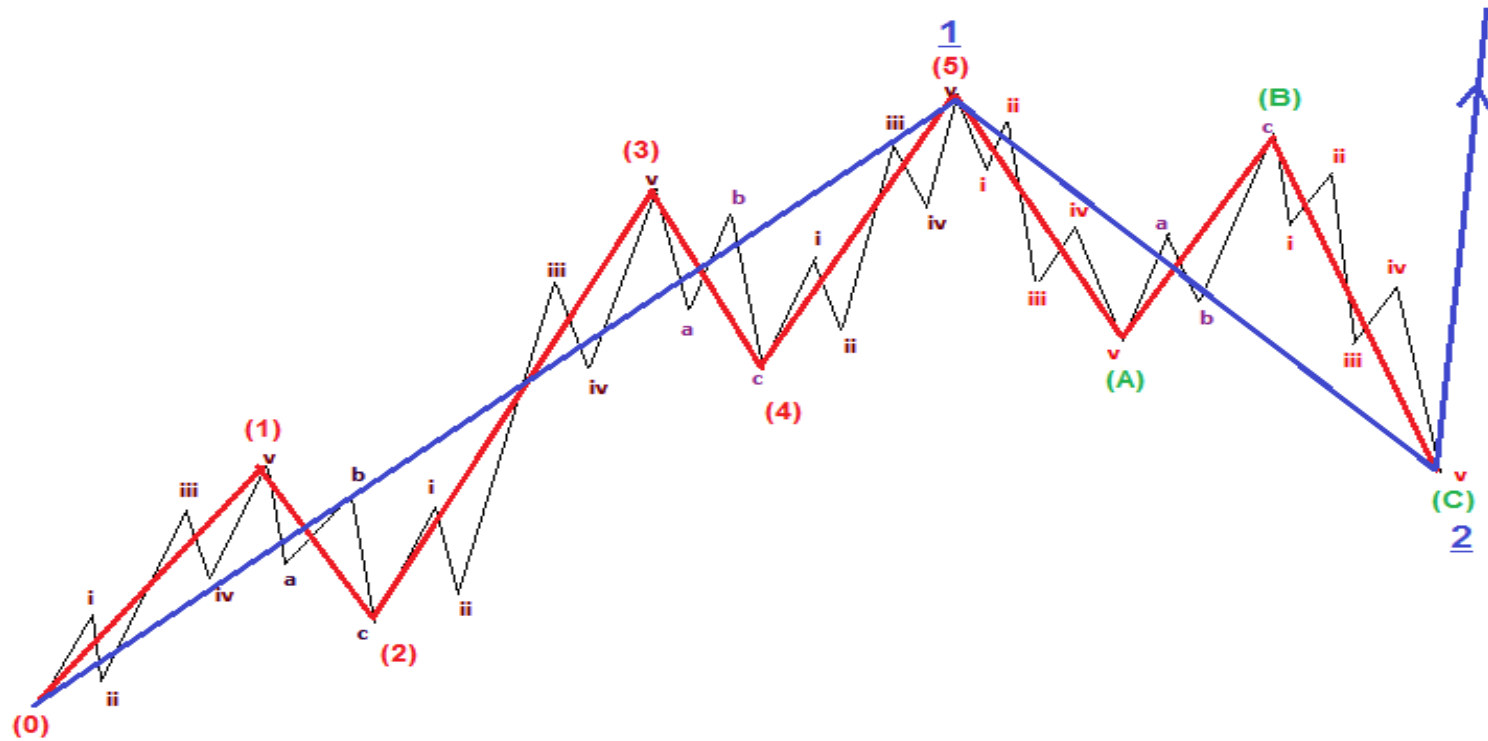
- Motive of identifying price trends based on historical data.
- Trend used to forecast future behaviour.
- Used for either a particular security or market in general.
- Both price and volume data are studied simultaneously for both (security as well as the market).

ELLIOT WAVE THEORY

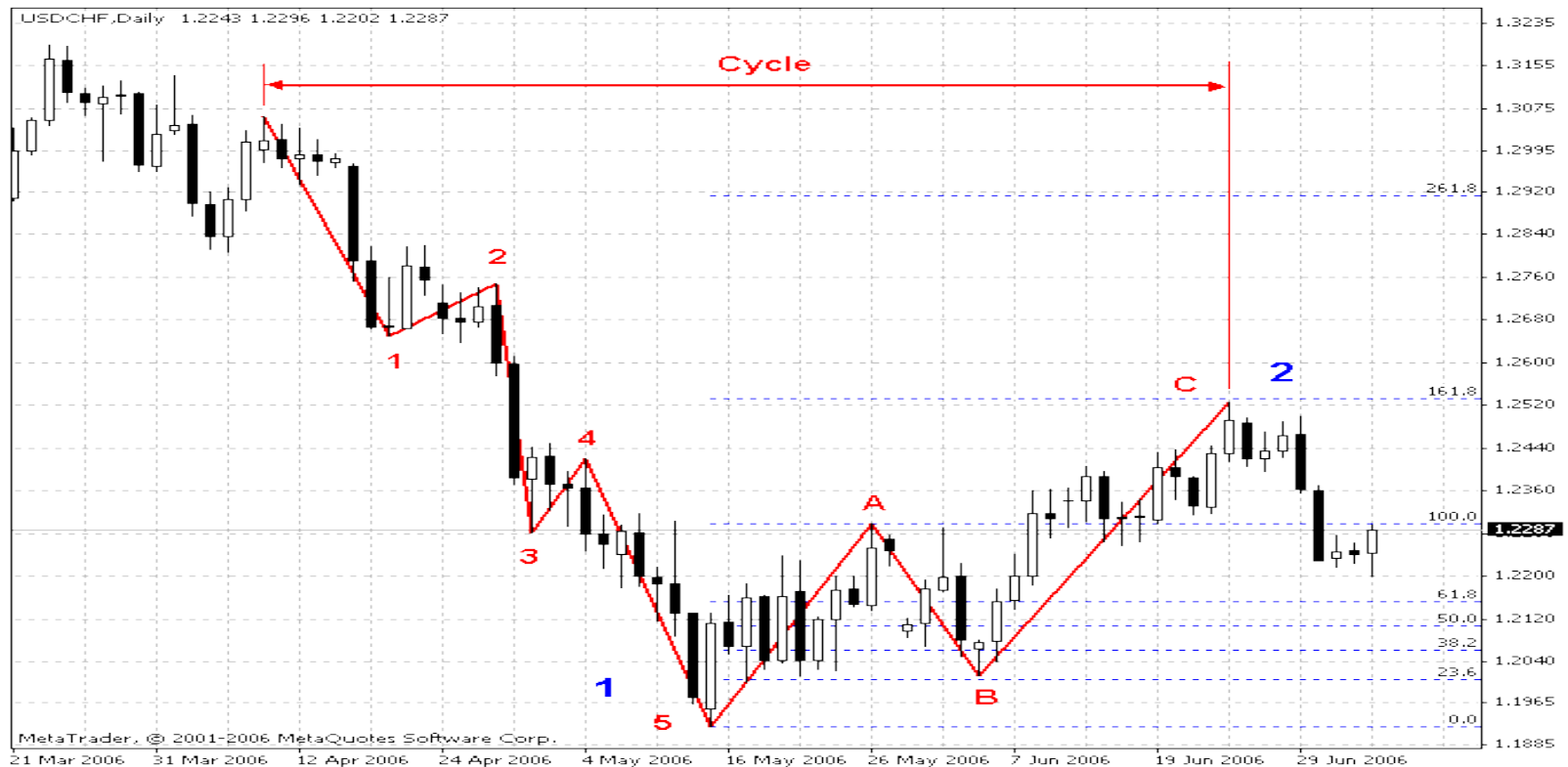
- Developed by Ralph Nelson Elliot.
- Theory states that the long term major patterns may consist of five successive steps or five waves.
- Types of market
 - Bull market
 - Bear market



ELLIOT WAVE THEORY IN BULL MARKET

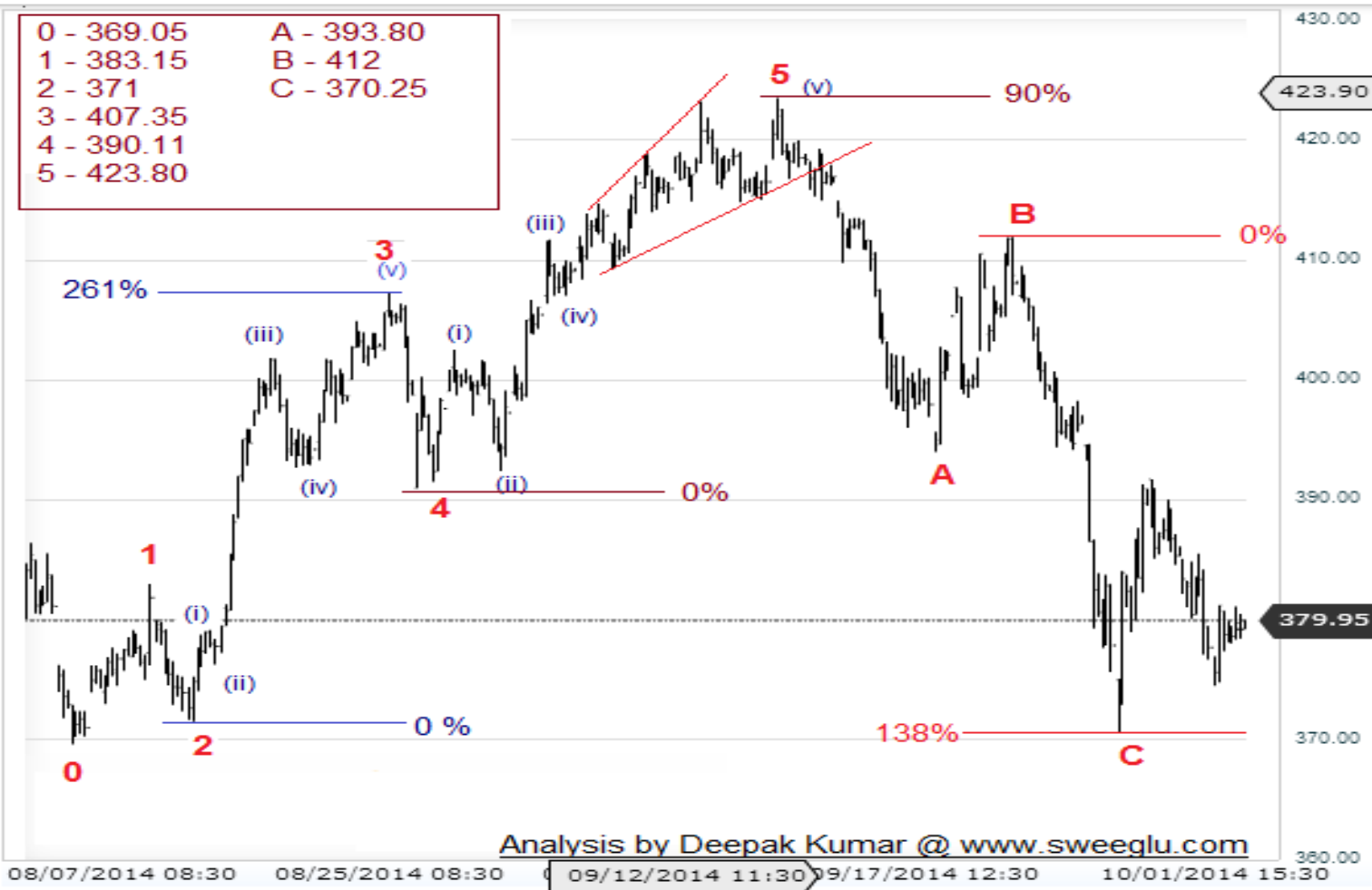


ELLIOT WAVE THEORY IN BEAR MARKET



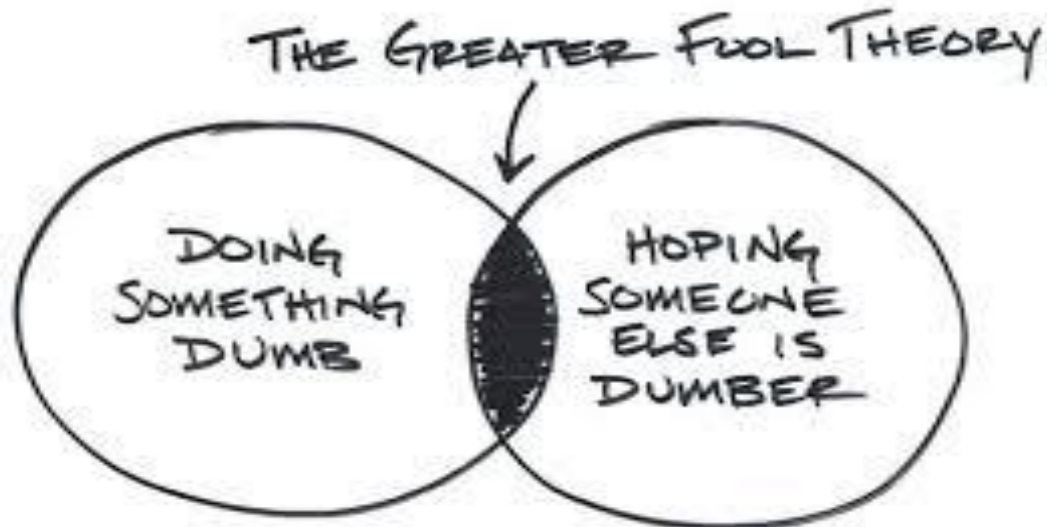
REAL LIFE EXAMPLE

AXIS Bank Ltd. 379.95 +2.25 (+0.60%)



GREATER FOOL THEORY

The belief that we can always buy investments at any given price, setting aside valuations, and eventually turning them into a profit because there will always be a “Greater Fool” willing to pay the higher price.



PRICE CHARTS

- Opening price
- High price
- Low price
- Closing price



BAR CHARTS

- This is a popular technique of showing the price variation and volume on a particular day.
- The chart is made up of a series of vertical lines that represent each data point.
- This vertical line represents the high and low for the trading period, along with the closing price.
- The close and open are represented on the vertical line by a horizontal dash.

Overlays

Indicators

Draw

Chart Type

Events



Mon, 28 Mar 2016



SBI

▼ 188.30 -8.30 (-4.22%)

VOLUME
1,97,60,603

OPEN
195.80

HIGH
198.25

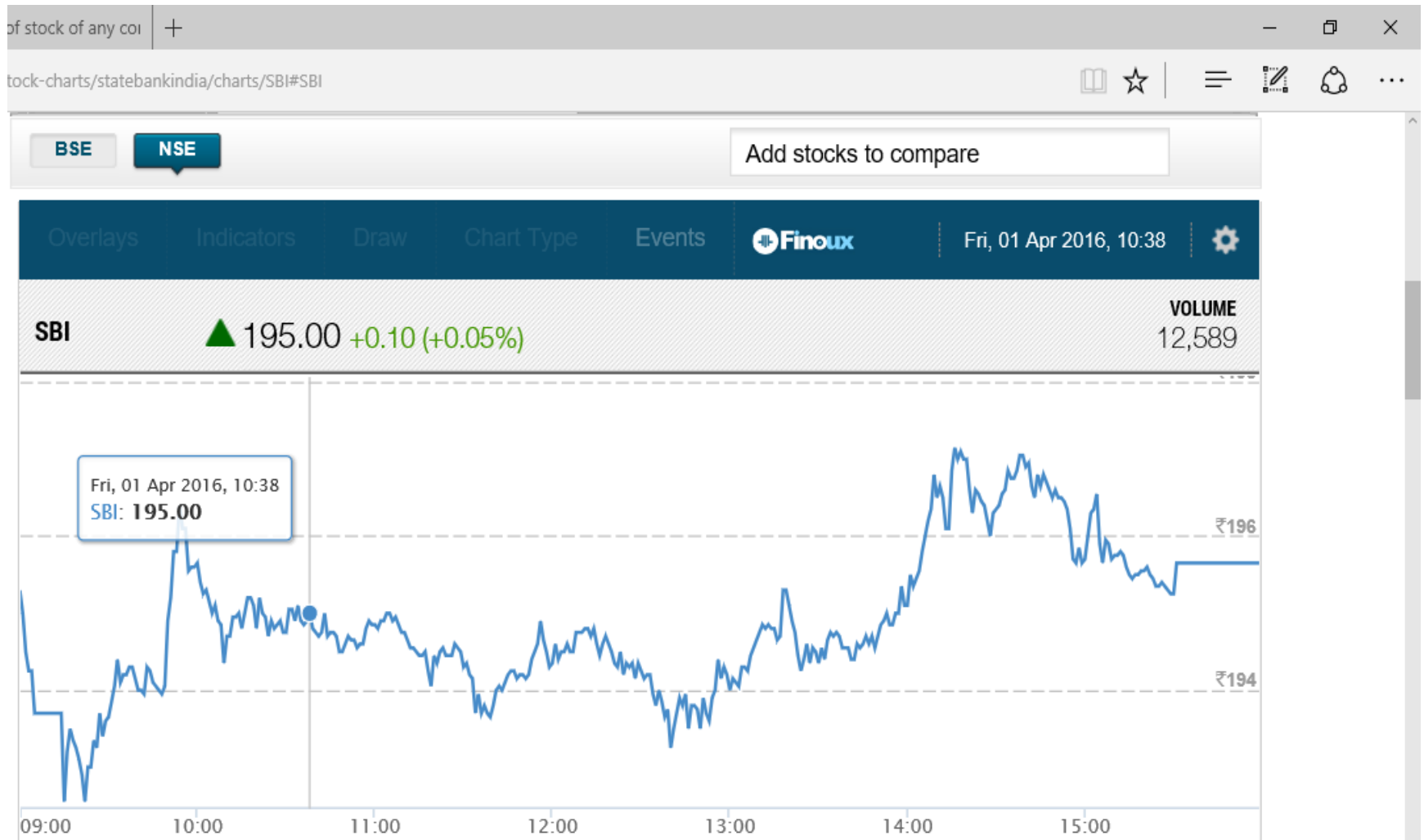
LOW
187.65



LINE CHART

- Line chart represents any variable over a set period of time.
- The line is formed by connecting value of represented variable over the time frame.
- Line charts do not provide visual information of the trading range for the individual points such as the high, low and opening prices and closing price.
- They depict any variable like volume of a security, index number, price etc .

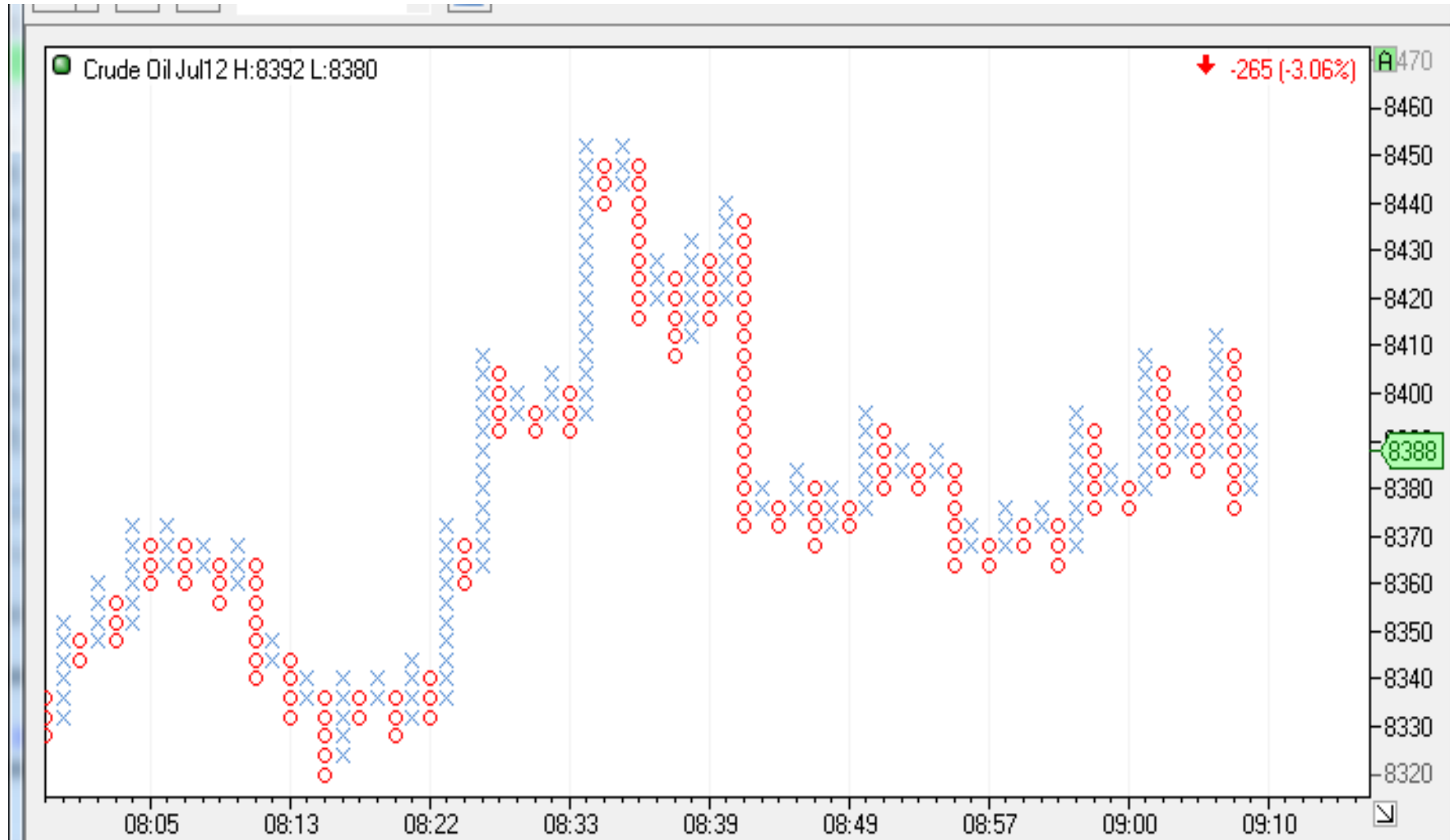
Example for Line chart



POINT AND FIGURE CHART

- The point and figure chart is not well known or used by the average investor but it has had a long history of use dating back to the first technical traders.
- This type of chart reflects price movements and is not as concerned about time and volume in the formulation of the points.
- In order to prepare this type of graph ,the analyst has to decide as to what is a significant price change .
- It uses a chart with "X"s and "O"s for predicting financial asset prices. The "X"s are used to indicate rising prices and "O"s to indicate falling prices

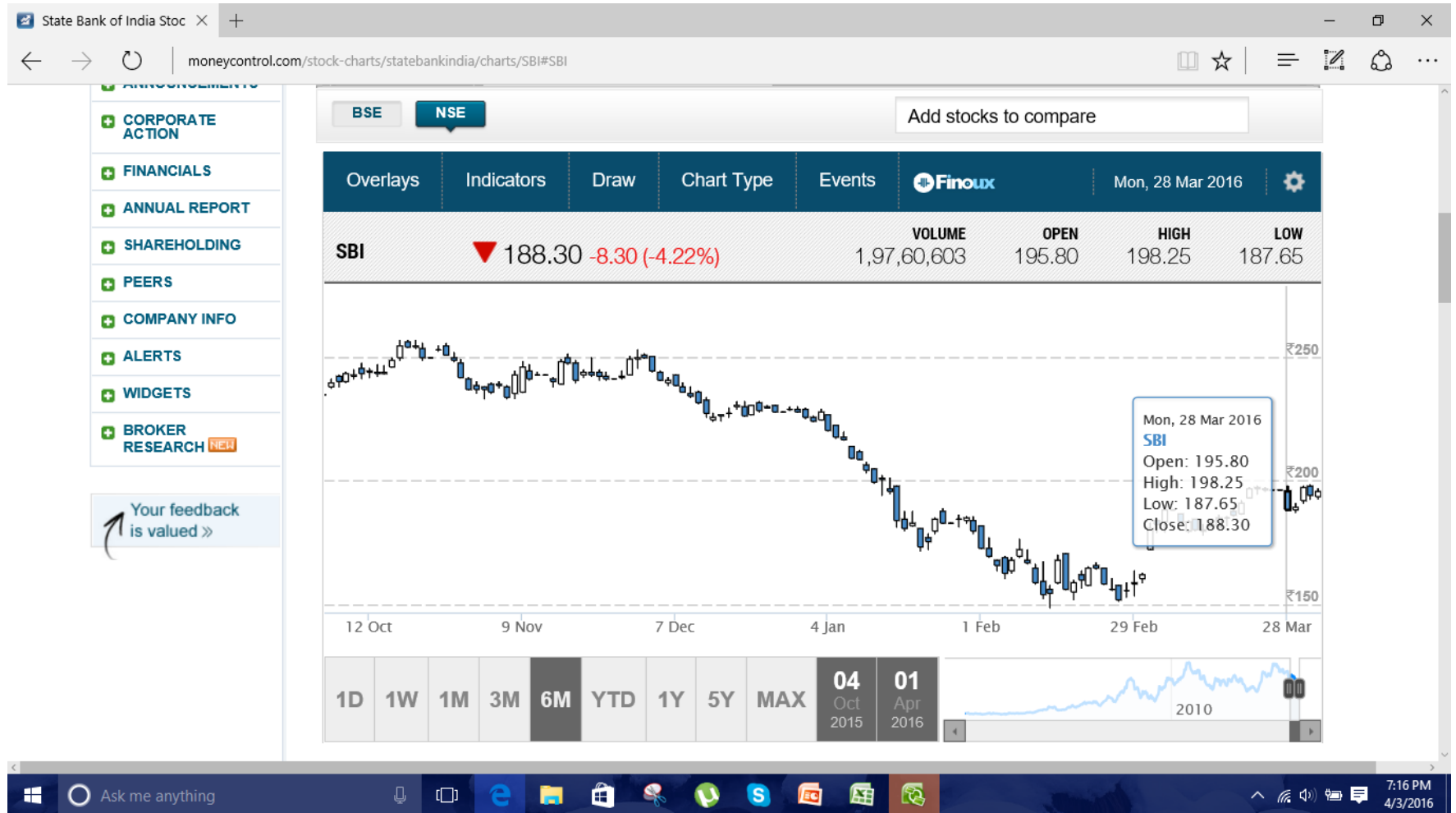
Example for Point and Figure chart



CANDLESTICK CHART

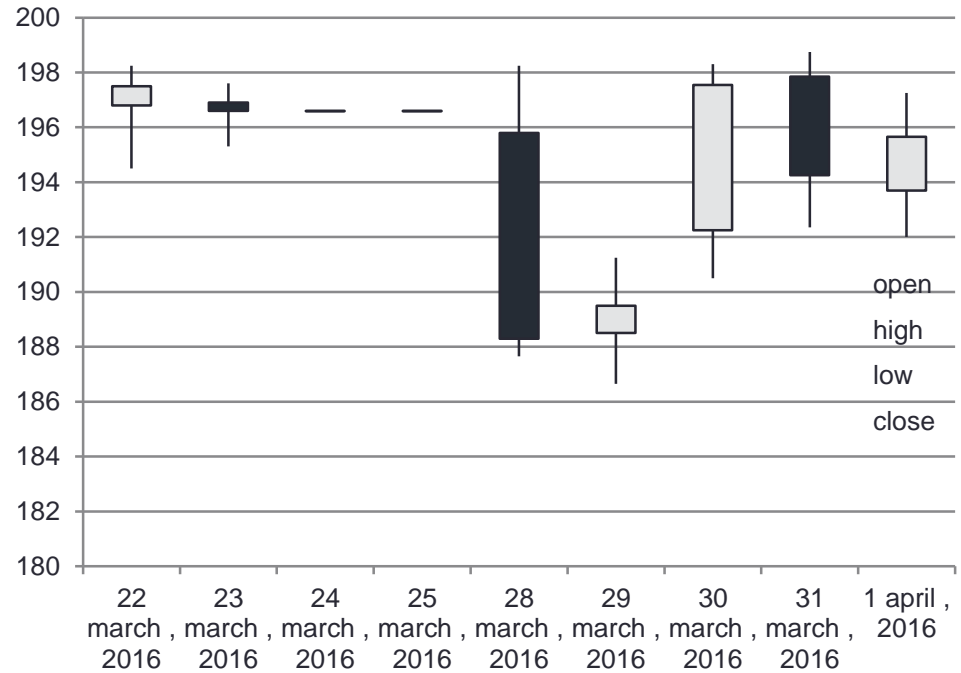
- Similar to the bar chart, the candlestick also has a thin vertical line showing the period's trading range.
- Candlesticks rely heavily on the use of colors to explain what has happened during the trading period. There are two color constructs for days up and one for days that the price falls.
- When the price of the stock is up and closes above the opening trade, the candlestick will usually be white or clear. If the stock has traded down for the period, then the candlestick will usually be red or black.
- If the stock's price has closed above the previous day's close but below the day's open, the candlestick will be black or filled with the color that is used to indicate an up day.

Example for Candlestick chart



Example for Candlestick chart

date	open	high	low	close
22 march , 2016	196.8	198.25	194.5	197.5
23 march , 2016	196.9	197.6	195.3	196.6
24 march , 2016	196.6	196.6	196.6	196.6
25 march , 2016	196.6	196.6	196.6	196.6
28 march , 2016	195.8	198.25	187.65	188.3
29 march , 2016	188.5	191.25	186.65	189.5
30 march , 2016	192.25	198.3	190.5	197.55
31 march , 2016	197.85	198.75	192.35	194.25
1 april , 2016	193.7	197.25	192	195.65



SUPPORT AND RESISTANCE LEVELS

- Support is the price level at which demand is thought to be strong enough to prevent the price from declining further.
 - The logic dictates that as the price declines towards support and gets cheaper, buyers become more inclined to buy and sellers become less inclined to sell.
- Resistance is the price level at which selling is thought to be strong enough to prevent the price from rising further.
 - The logic dictates that as the price advances towards resistance, sellers become more inclined to sell and buyers become less inclined to buy.

Support & Resistance

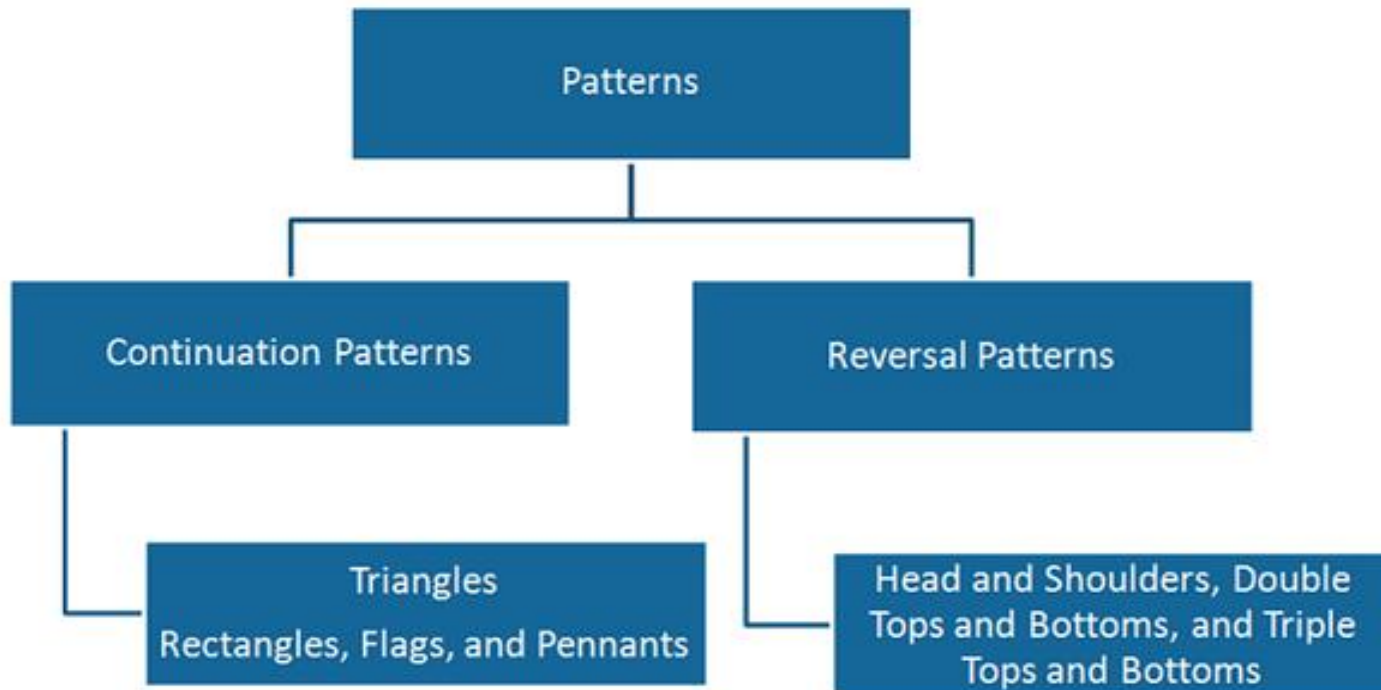
Daily Chart - Semiconductor HOLDERS (SMH)



REVERSAL PATTERNS AND CONTINUATION PATTERNS

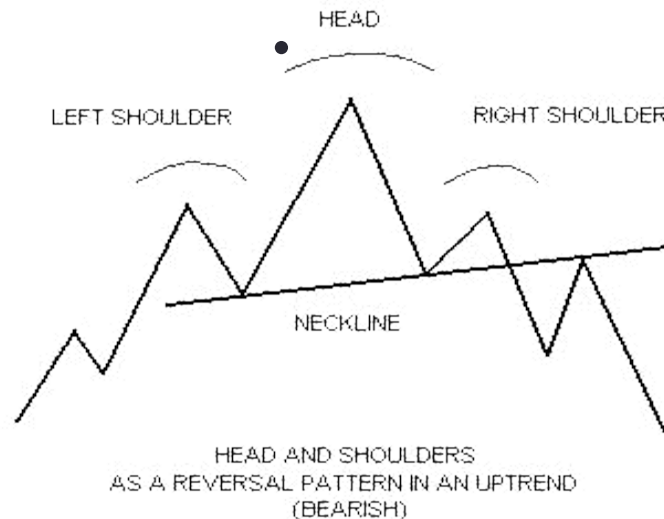
- The reversal patterns are those which indicate a reversal of existing trend.
- It can further be classified as bullish patterns or bearish patterns.
- The continuation patterns suggest that there is only a pause in the market and the old trend will continue again after the pause.

Types of Patterns



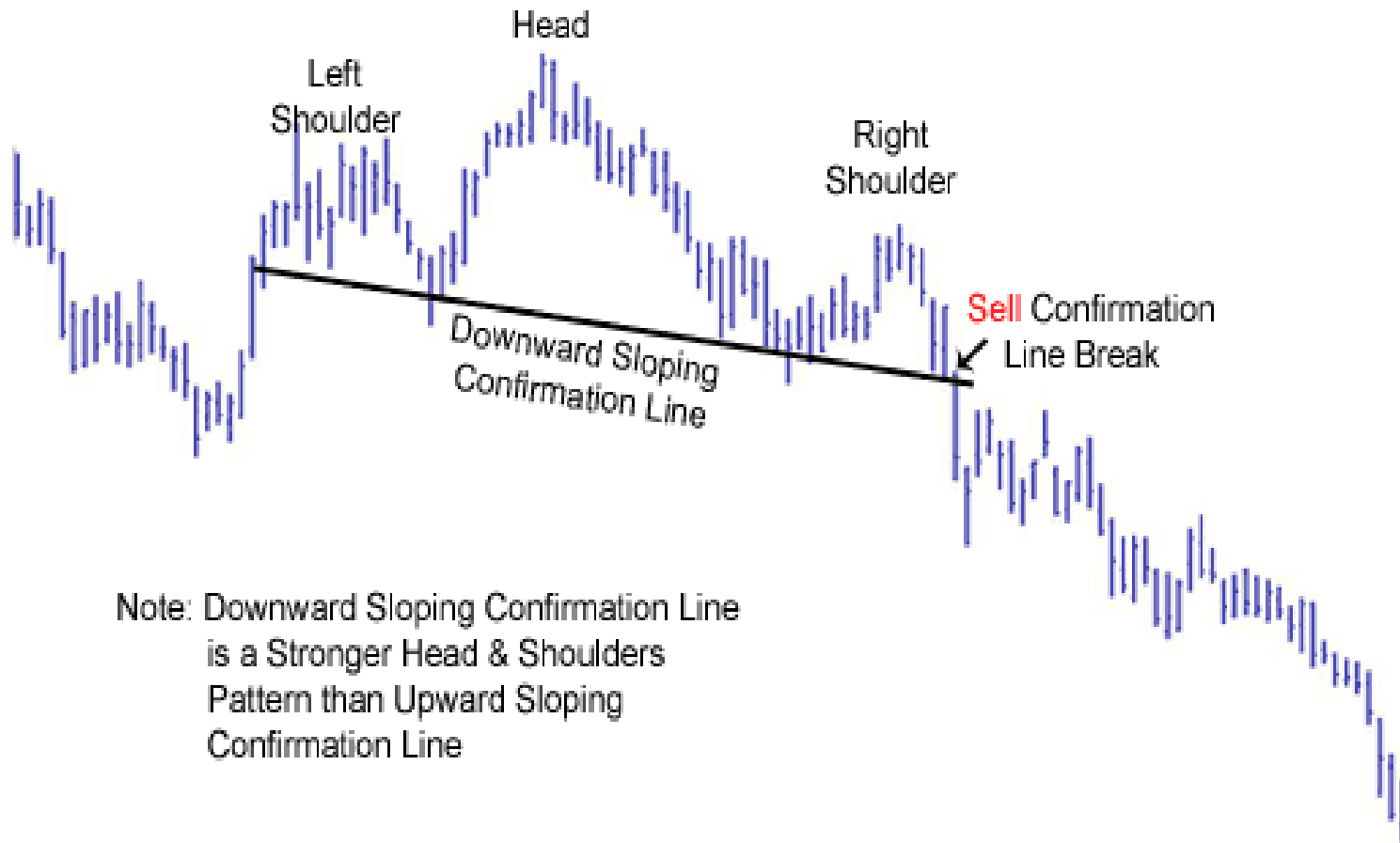
HEAD AND SHOULDER

- The head-and-shoulders top signals to chart users that a security's price is likely to make a downward move, especially after it breaks below the neckline of the pattern.
- Due to this pattern forming mostly at the peaks of upward trends, it is considered to be a trend-reversal pattern, as the security heads down after the pattern's completion.



Head & Shoulders

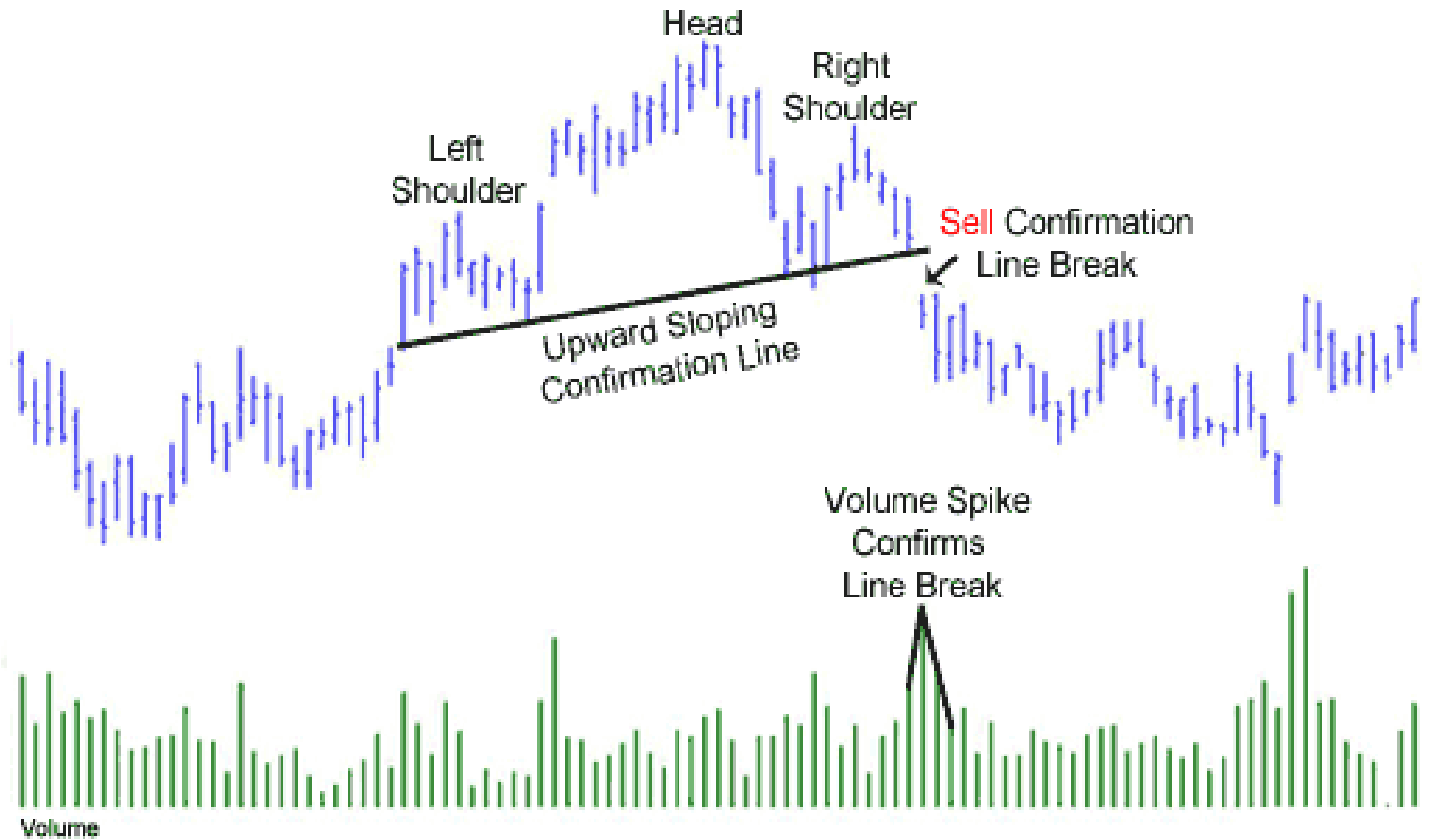
Daily Chart - Home Depot (HD)



Note: Downward Sloping Confirmation Line
is a Stronger Head & Shoulders
Pattern than Upward Sloping
Confirmation Line

Head & Shoulders

Daily Chart - General Electric (GE)

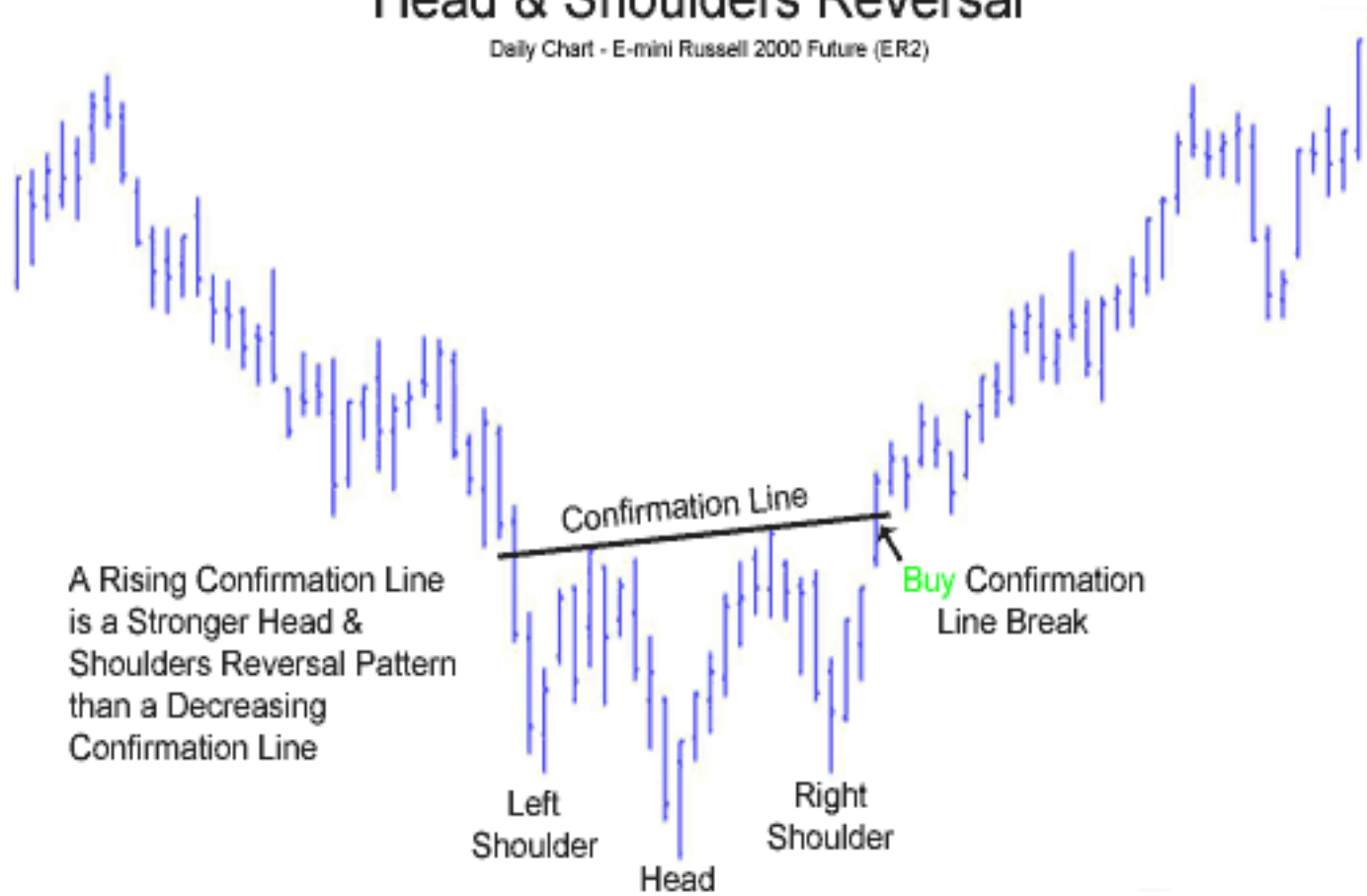


INVERTED HEAD AND SHOULDER

- The inverted head-and-shoulders pattern is the exact opposite of the head-and-shoulders top, as it signals that the security is set to make an upward move.
- Often coming at the end of a downtrend, the inverse head and shoulders is considered to be a reversal pattern, as the security typically heads higher after the completion of the pattern.

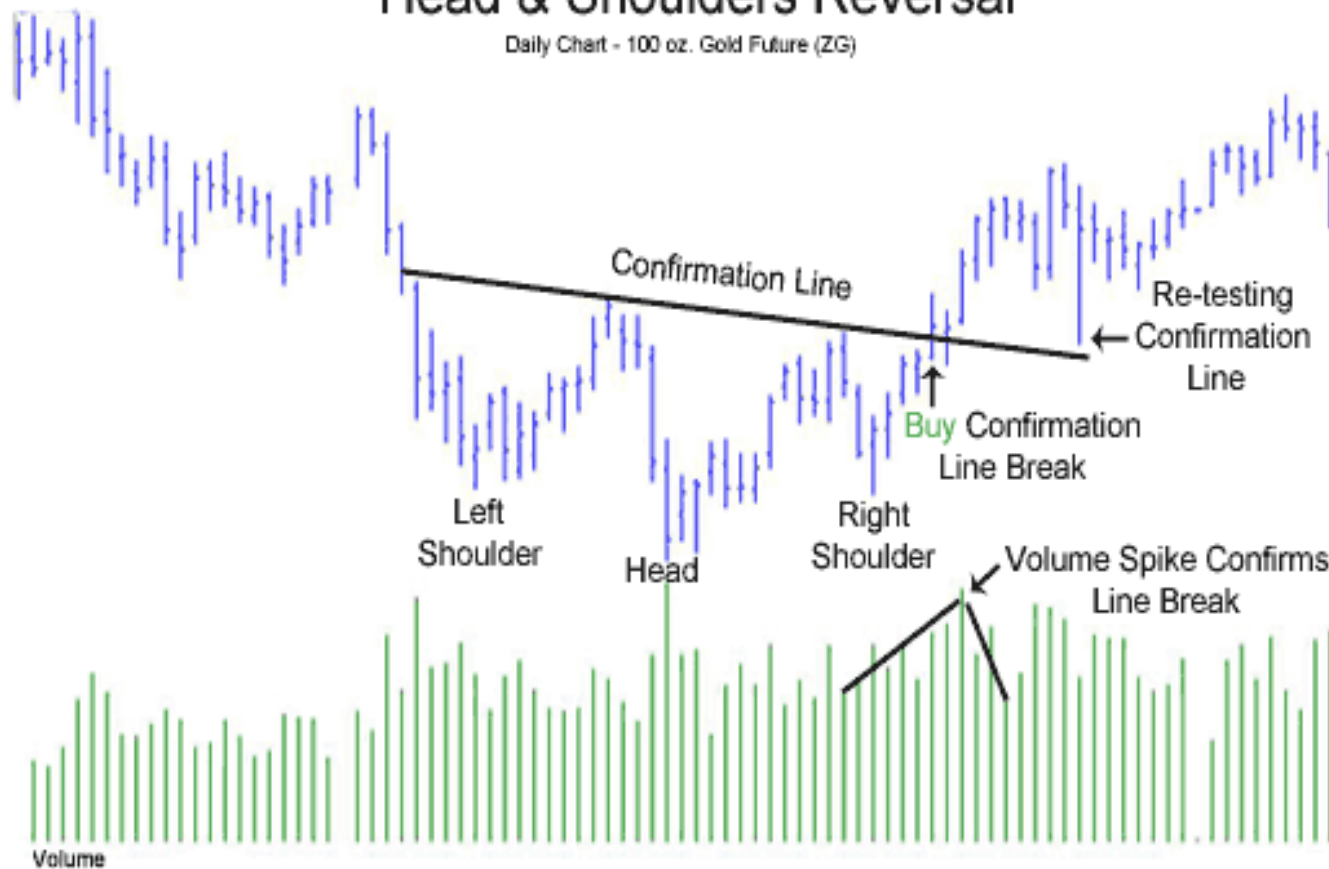
Head & Shoulders Reversal

Daily Chart - E-mini Russell 2000 Future (ER2)



Head & Shoulders Reversal

Daily Chart - 100 oz. Gold Future (ZG)



DOUBLE TOPS AND BOTTOMS

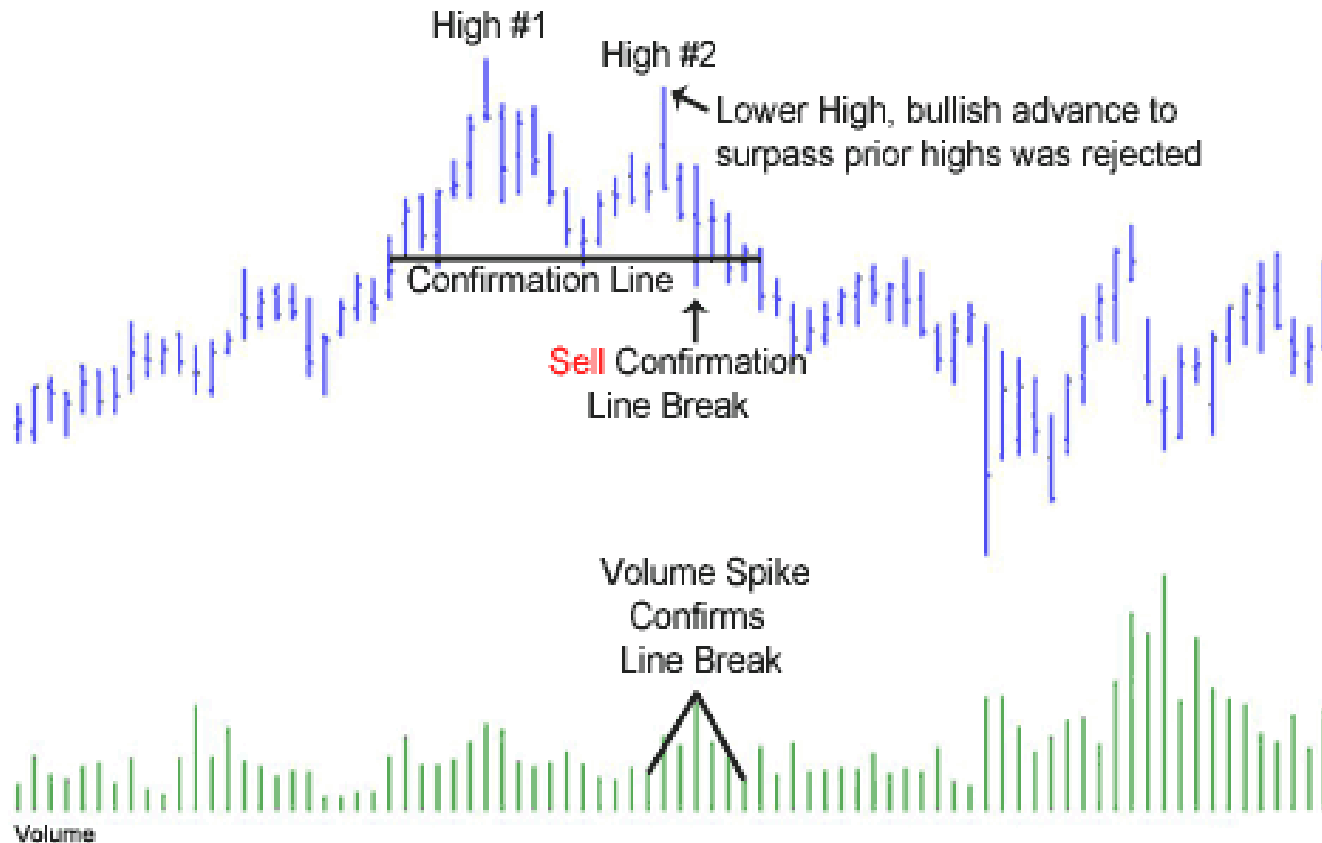
- These two reversal patterns illustrate a security's attempt to continue an existing trend.
- Upon several attempts to move higher, the trend is reversed and a new trend begins. These chart patterns formed will often resemble what looks like a "W" (for a double bottom) or an "M" (double top).

DOUBLE TOP

- The double-top pattern is found at the peaks of an upward trend and is a clear signal that the preceding upward trend is weakening and that buyers are losing interest.
- Upon completion of this pattern, the trend is considered to be reversed and the security is expected to move lower.

Double Top

Daily Chart - Altria (MO)



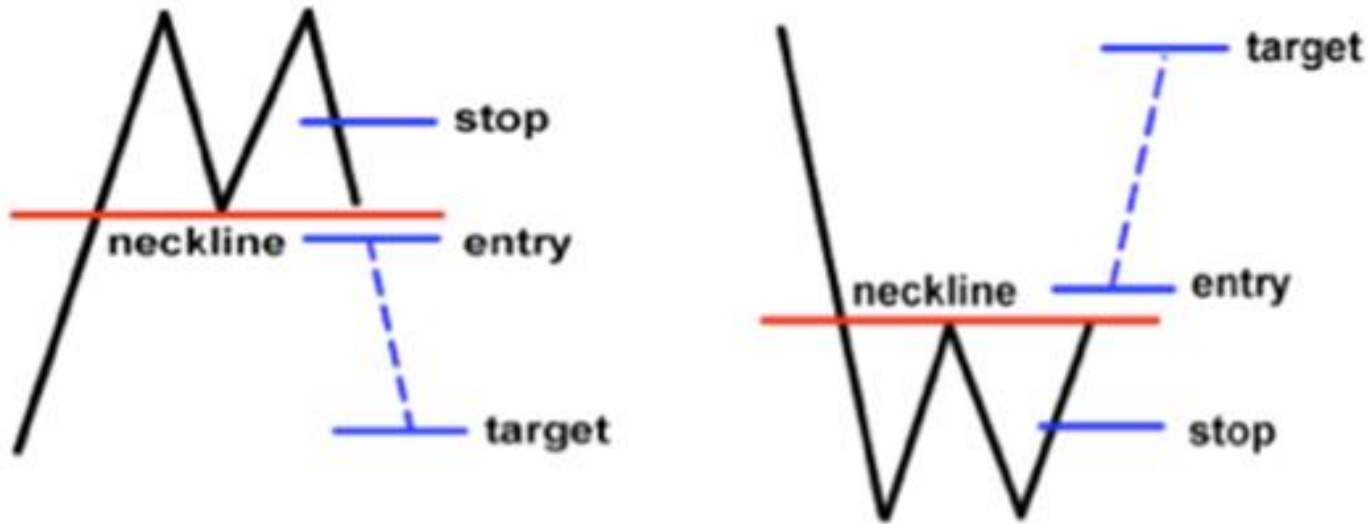
DOUBLE BOTTOM

- A double bottom appears when a share hits a low, comes higher, again pulls back.
- A double bottom appears at the end of a bearish trend and indicates the start of the bullish trend.

Price Trend, First Trough, Peak , Second Trough Advance From Trough, Resistance Break, Resistance Turned Support, Price Target.



STRATEGIES



Double Top and Double Bottom

GAPS

- Gaps occur when a price opens much higher (gap higher) or lower (gap lower) than the previous day's close.
- Once a gap occurs, the new price represents an important price level. Gaps higher create support that should allow the stock to move higher and gaps lower create resistance that should pressure the stock lower.
- Until the gap is violated, we should assume the trend will continue in the gap's direction.

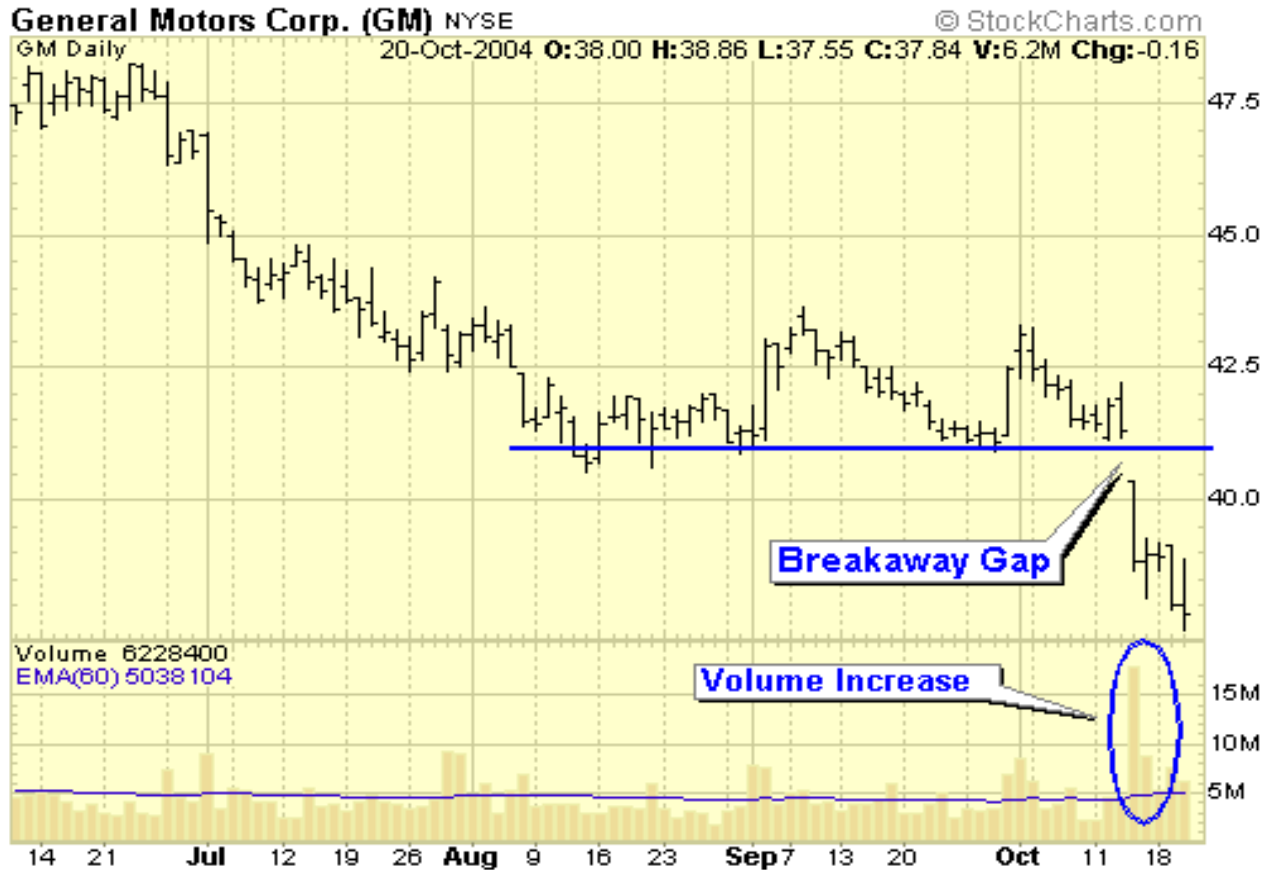
Gaps



BREAKAWAY GAPS

- They occur when the price action is breaking out of their trading range or congestion area.
- A *congestion area* is just a price range in which the market has traded for some period of time, usually a few weeks or so.
- To break out of these areas requires market enthusiasm and, either, many more buyers than sellers for upside breakouts or more sellers than buyers for downside breakouts.

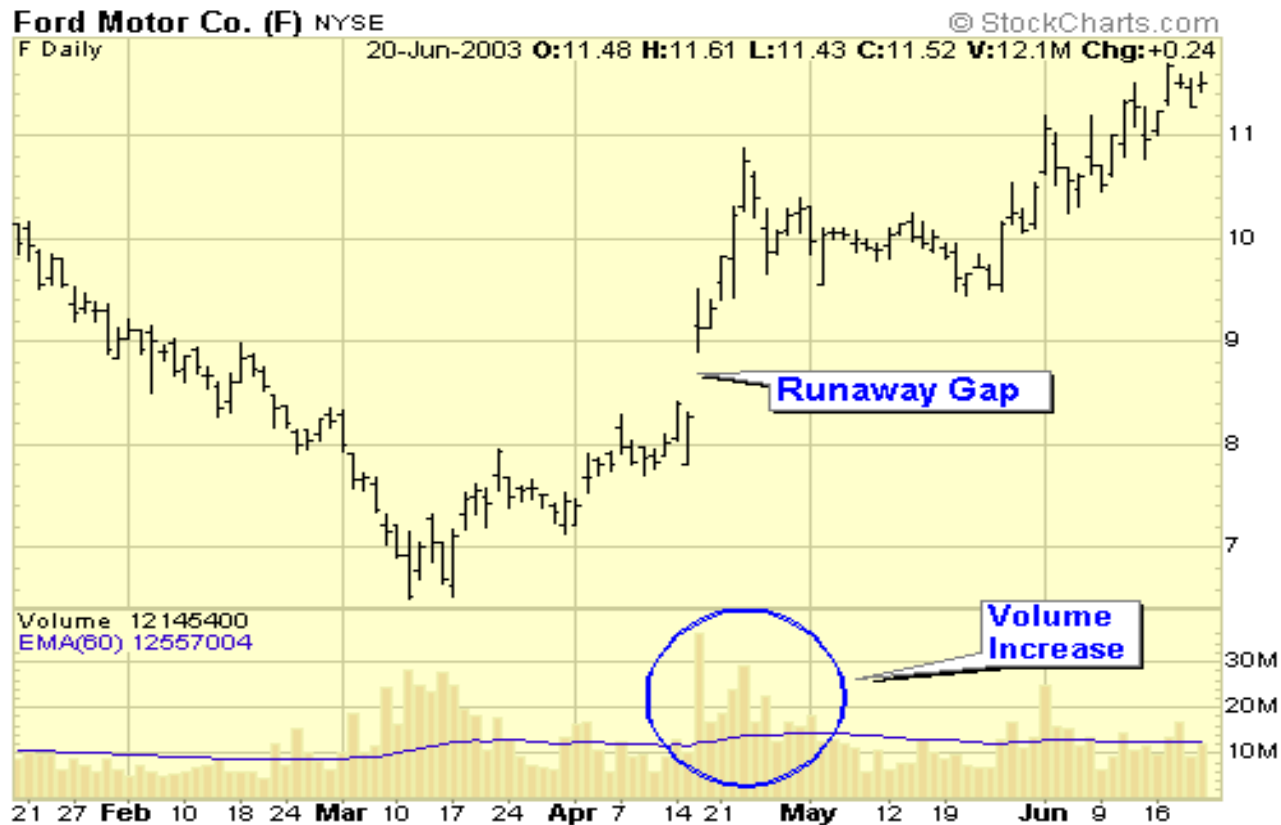
Breakaway Gaps



RUNAWAY GAPS

- ❖ **Runaway gaps are also called measuring gaps, and are best described as gaps that are caused by increased interest in the stock.**
- ❖ **For runaway gaps to the upside, it usually represents traders who did not get in during the initial move of the up trend and while waiting for a retracement in price, decided it was not going to happen.**
- ❖ **Increased buying interest happens all of a sudden, and the price gaps above the previous day's close. This type of runaway gap represents an almost panic state in traders.**

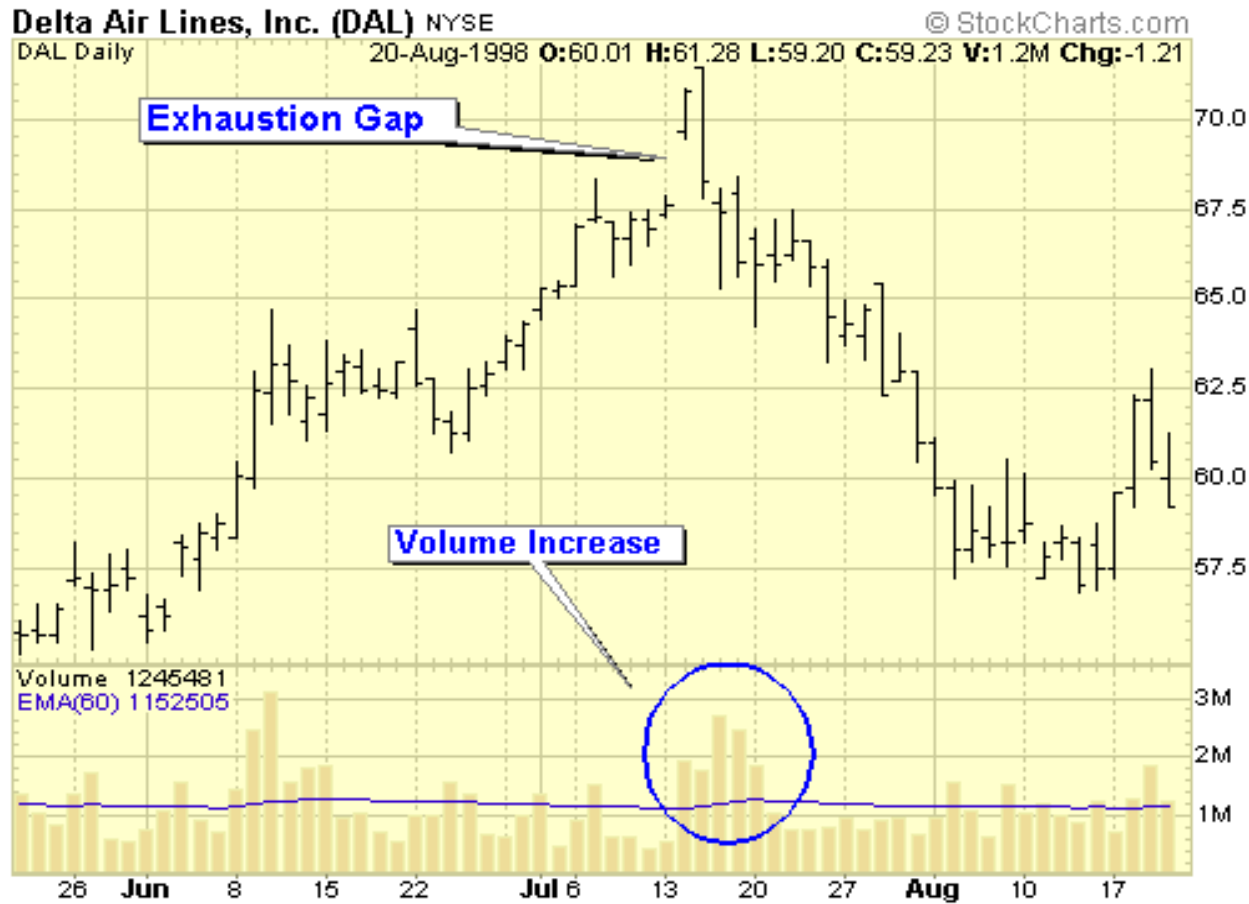
Runaway Gaps



EXHAUSTION GAPS

- Exhaustion gaps are those that happen near the end of a good up- or downtrend. They are many times the first signal of the end of that move.
- They are identified by high volume and large price difference between the previous day's close and the new opening price. They can easily be mistaken for runaway gaps if one does not notice the exceptionally high volume.

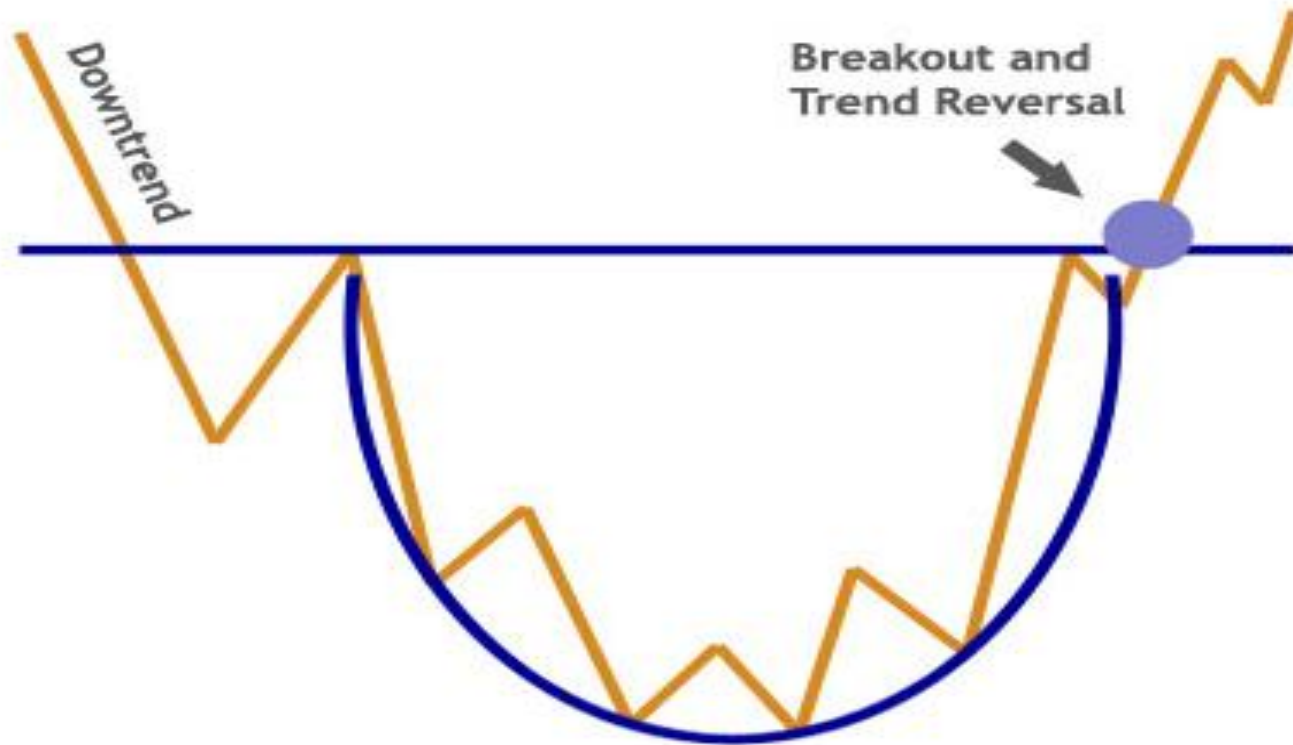
Exhaustion Gaps



ROUNDING BOTTOM

- The Rounding Bottom is a long-term reversal pattern that is best suited for weekly charts.
- It is also referred to as a saucer bottom, and represents a long consolidation period that turns from a bearish bias to a bullish bias.

Rounding bottom



THE CUP AND THE HANDLE

- The Cup with Handle is a bullish continuation pattern that marks a consolidation period followed by a breakout.
- As its name implies, there are two parts to the pattern: the cup and the handle.
- The cup forms after an advance and looks like a bowl or rounding bottom.
- As the cup is completed, a trading range develops on the right hand side and the handle is formed.
- A subsequent breakout from the handle's trading range signals a continuation of the prior advance.

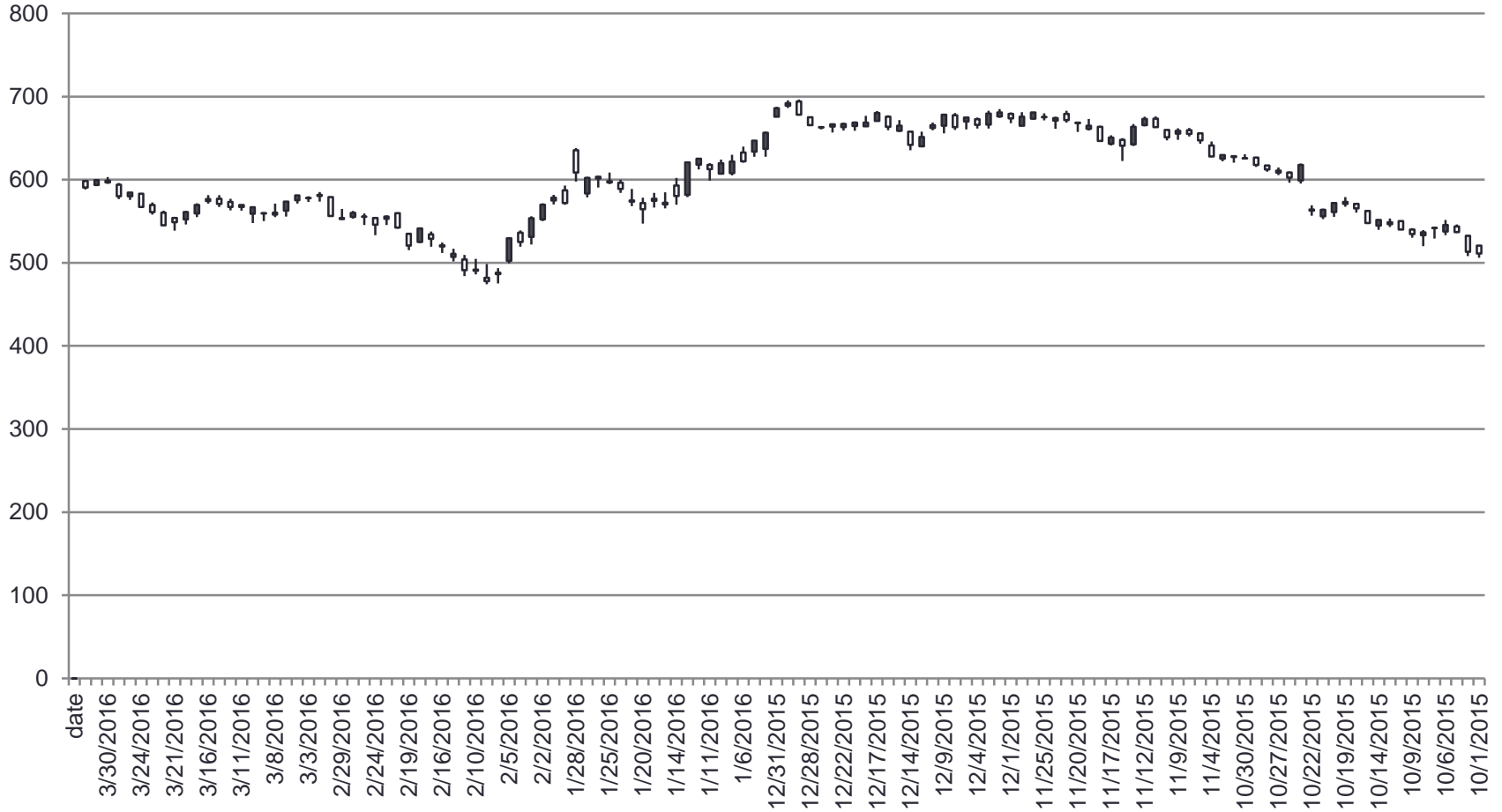
The cup and the handle



Procter and Gamble stock chart



Amazon stock price chart



TRIANGLES

- A triangle is formed when each succeeding peak is lower than the previous peak
- Or each succeeding bottom is higher than the previous bottom
- The series of peaks and bottoms are joined by a line which converges and form a shape of triangle.

SYMMETRIC TRIANGLE



ASCENDING TRIANGLES: (BULLISH)



DESCENDING TRIANGLE: (BEARISH)

Dupont Co. (DD) NYSE

© StockCharts.com

30-Oct-1997 **Open** 52.60 **High** 53.78 **Low** 51.77 **Close** 53.07 **Volume** 3.8M **Chg** -0.47 ▼



FLAGS

- A flag pattern appears when a bull rally or a bear phase is interrupted by a consolidation pattern appearing as a rectangle or a parallelogram.
- As the flag formation indicates a pause before continuation of earlier trend, the prices move in the same direction after the flag as before.

PARALLELOGRAM FLAG



INDICATOR ANALYSIS

- It's a mathematical examination of price and volume information over a given period.
- Objective: To predict where and in which direction the price may move in near future
- Attempts to establish a mathematical relationship of current price past prices.

MOVING AVERAGES

- It refers to average level of closing prices, calculated on regular basis.
- A sequence of averages is calculated by calculating averages on daily basis.

Simple Moving Average (SMA)

Daily Chart - Dow Jones Industrial Average ETF (DIA)



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** = $100 - 100 / (1 + rs^*)$
Where RS = average of x days' up closes / average of x days' down closes.

RELATIVE STRENGTH INDEX



CROSSOVER

- Crossover is the point on a stock chart when a security and an indicator intersect.
- Crossovers are used by technical analysts to aid in forecasting the future movements in the price of a stock.

Simple Moving Average (2-SMA's)

Daily Chart - S&P 500 Depository Receipts ETF (SPY)



WEAKNESSES OF TECHNICAL ANALYSIS

- Experience: careful identification and interpretation of pattern requires a lot of experience.
- Biasness: must be free from biasness of technical analyst
- Quickness in identification of a pattern: the technical analyst must be a quick identifier of the pattern.
- Long term perspective: emphasis in the technical analysis should always be on the long term pattern.
- Not suitable in case of new listings
- Cannot forecast new phenomenon (like 2008 financial crisis).