

Best Charts 101

Fundamental and Technical Analysis

Technical analysis doesn't have to be complex. Here's a reminder to keep it simple.

We have a hard time making fast decisions with complicated information. That is why we try to simplify trading as much as possible, in order to scan fast and accurate trading opportunities in a few seconds. As Albert Einstein used to say, Keep things as simple as possible but not any simpler. •

Technical and Fundamental Analysis Simple: Charting the Markets in Your Language.

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Fundamental vs Technical Analysis

The key differences

There are two general schools of stock analysis: fundamental and technical. This feature describes the two schools and the key differences between them.

Fundamental Analysis

Fundamental stock analysis requires, among other things, a close examination of the financial statements for the company to determine its current financial strength, future growth and profitability prospects, and current management skills, in order to estimate whether the stock's price is undervalued or overvalued. A good deal of reliance is placed on annual and quarterly earnings reports, the economic, political and competitive environment facing the company, as well as any current news items or rumours relating to the company's operations. Simply put, fundamental analysis concerns itself with the "basics" of the business in assessing the worth of a stock.

Numerous ratios, derived from balance sheet and income statement data, are used in fundamental analysis including such widely used ratios as, Working Capital Ratio, Debt-equity Ratio, Return on Equity Ratio, Earnings per Share, etc.

Fundamental analysis may be the preferred method to use for mid to longer term investors. However, it is not suitable for use by day traders because of the amount of research required, and the fact that trades are entered into and exited within a very short time frame.

Technical Analysis

Technical analysis does not concern itself with a company's basics or fundamentals. Rather, technical analysis involves the study of a stock's trading patterns through the use of charts, trend lines, support and resistance levels, and many other mathematical analysis tools, in order to predict future movements in a stock's price, and to help identify trading opportunities.

The basic foundations or premises of technical analysis are that a stock's current price discounts all information available in the market, that price movements are not random, and that patterns in price movements, in very many cases, tend to repeat themselves or trend in some direction.

Bob Prechter, a famous practitioner of technical analysis once commented that, "... the main problem with fundamental analysis is that its indicators are removed from the market itself. The analyst assumes causality between external events and market movements, a concept which is almost certainly false. But, just as important, and less recognized, is that fundamental analysis almost always requires a forecast of the fundamental data itself before conclusions about the market are drawn. The analyst is then forced to take a second step in coming to a conclusion about how those forecasted events will affect the markets! Technicians only have one step to take, which gives them an edge right off the bat. Their main advantage is that they don't have to forecast their indicators."

A very large number of technical indicators have been developed over the years, including the widely used overbought/oversold indicators such as the Relative Strength Index, and the trend following indicators such as Moving

Averages.

While technical analysis can be a great help in trading the market, no technical indicator is infallible. Further, technical analysis is only as good as its interpreter. Finally, a significant of time must be spent in learning the principles of technical analysis, and in how to properly interpret the various charts and other technical indicators.

BestChartsOnline.com Charts

Scale: Normal (linear). Most trading authors use linear charts (Stan Weinstein, Alexander Elder, Chris Tate and Daryl Guppy).

Data: Weekly charts. Weekly data is made up of daily data that has been compressed to show each week as a single data point. Investors usually focus on weekly and monthly charts to spot long-term trends and forecast long-term price movements.

Price displayed: Candlestick. Originating in Japan over 300 years ago, candlestick charts have become quite popular in recent years. For a candlestick chart, the open, high, low and close are all required. A daily candlestick is based on the open price, the intraday high and low, and the close. A weekly candlestick is based on Monday's open, the weekly high-low range and Friday's close.

Technical Analysis

A method of evaluating securities by analyzing statistics generated by market activity, such as past prices and volume. Technical analysts use charts and other tools to identify patterns that can suggest future activity.

Technical analysts believe that the historical performance of stocks and markets are indications of future performance.

Relative Strength Index - RSI

A technical momentum indicator that compares the magnitude of recent gains to recent losses in an attempt to determine overbought and oversold conditions of an asset.

The RSI ranges from 0 to 100. An asset is deemed to be overbought once the RSI approaches the 70 level, meaning that it may be getting overvalued and is a good candidate for a pullback. Likewise, if the RSI approaches 30, it is an indication that the asset may be getting oversold and therefore likely to become undervalued.

Overbought/Oversold

Wilder recommended using 70 and 30 and overbought and oversold levels respectively. Generally, if the RSI rises above 70 it is considered bullish for the underlying stock. Conversely, if the RSI falls below 30, it is a bearish signal. Some traders identify the long-term trend and then use extreme readings for entry points. If the long-term trend is bullish, then oversold readings could mark potential entry points.

Divergences

Buy and sell signals can also be generated by looking for positive and negative divergences between the RSI and the underlying stock. For example, consider a falling stock whose RSI rises from a low point of (for example) 15 back up to say, 55. Because of how the RSI is constructed, the underlying stock will often reverse its direction soon after such a divergence. As in that example, divergences that occur after an overbought or oversold reading usually provide more reliable signals.

Centerline Crossover

The centerline for RSI is 50. Readings above and below can give the indicator a bullish or bearish tilt. On the whole, a reading above 50 indicates that average gains are higher than average losses and a reading below 50 indicates that losses are winning the battle. Some traders look for a move above 50 to confirm bullish signals or a move below 50 to confirm bearish signals.

RSI in uptrend => Strong (Positive RSI)

RSI in downtrend => Weak (Negative RSI)

Wait & See (Sideways RSI)

Moving Average Convergence Divergence - MACD

A trend-following momentum indicator that shows the relationship between two moving averages of prices. The MACD is calculated by subtracting the 26-day exponential moving average (EMA) from the 12-day EMA. A nine-day EMA of the MACD, called the "signal line", is then plotted on top of the MACD, functioning as a trigger for buy and sell signals.

There are three common methods used to interpret the MACD:

1. **Crossovers:** As shown in the chart above, when the MACD falls below the signal line, it is a bearish signal, which indicates that it may be time to sell. Conversely, when the MACD rises above the signal line, the indicator gives a bullish signal, which suggests that the price of the asset is likely to experience upward momentum. Many traders wait for a confirmed cross above the signal line before entering into a position.
2. **Divergence:** When the security price diverges from the MACD. It signals the end of the current trend.
3. **Dramatic rise:** When the MACD rises dramatically - that is, the shorter moving average pulls away from the longer-term moving average - it is a signal that the security is overbought and will soon return to normal levels.

Traders also watch for a move above or below the zero line because this signals the position of the short-term average relative to the long-term average. When the MACD is above zero, the short-term average is above the long-term average, which signals upward momentum. The opposite is true when the MACD is below zero.

MACD Benefits

One of the primary benefits of MACD is that it incorporates aspects of both momentum and trend in one indicator. As a trend-following indicator, it will not be wrong for very long. The use of moving averages ensures that the indicator will eventually follow the movements of the underlying security. By using Exponential Moving Averages (EMAs), as opposed to Simple Moving Averages (SMAs), some of the lag has been taken out.

As a momentum indicator, MACD has the ability to foreshadow moves in the underlying security. MACD divergences can be key factors in predicting a trend change. A Negative Divergence signals that bullish momentum is waning, and there could be a potential change in trend from bullish to bearish. This can serve as an alert for traders to take some profits in long positions, or for aggressive traders to consider initiating a short position.

MACD can be applied to daily, weekly or monthly charts. MACD represents the convergence and divergence of two moving averages. The standard setting for MACD is the difference between the 12 and 26-period EMA. However, any combination of moving averages can be used. The set of moving averages used in MACD can be tailored for each individual security. For weekly charts, a faster set of moving averages may be appropriate. For volatile stocks, slower moving averages may be needed to help smooth the data. Given that level of flexibility, each individual should adjust the MACD to suit his or her own trading style, objectives and risk tolerance.

MACD in uptrend => Strong (Positive MACD)

MACD in downtrend => Weak (Negative MACD)

Wait & See (Sideways MACD)

Resistance and Support (Red line)

Resistance: the price at which a stock or market can trade, but which it cannot exceed, for a certain period of time.

Support: the price level which, historically, a stock has had difficulty falling below. It is thought of as the level at which a lot of buyers tend to enter the stock.

Simple Moving Average - SMA

A simple, or arithmetic, moving average that is calculated by adding the closing price of the security for a number of time periods and then dividing this total by the number of time periods. Short-term averages respond quickly to changes in the price of the underlying, while long-term averages are slow to react.

1. Weekly SMA (10) for traders (Blue line)

2.Weekly SMA (30) for investors (Blue line)

Crossovers: when the price falls below the weekly SMA (30), it is a bearish signal which indicates that it may be time to sell. Conversely, when the price rises above the weekly SMA (30), the indicator gives a bullish signal which suggests that the asset is likely to experience upward momentum.

Bullish signal

Bearish signal

Bollinger Band (celestial line)

A band plotted two standard deviations away from a simple moving average

Because standard deviation is a measure of volatility, Bollinger bands adjust themselves to the market conditions. When the markets become more volatile, the bands widen (move further away from the average), and during less volatile periods, the bands contract (move closer to the average). The tightening of the bands is often used by technical traders as an early indication that the volatility is about to increase sharply.

This is one of the most popular technical analysis techniques. The closer the prices move to the upper band, the more overbought the market, and the closer the prices move to the lower band, the more oversold the market.

Trendline (Blue line)

Technical analysis is built on the assumption that prices trend. Trend Lines are an important tool in technical analysis for both trend identification and confirmation. A trend line is a straight line that connects two or more price points and then extends into the future to act as a line of support or resistance.

Channel (Blue line)

The technical range between support and resistance levels that a stock price has traded in for a specific period of time.

Fibonacci Retracement (Blue line)

A term used in technical analysis that refers to the likelihood that a financial asset's price will retrace a large portion of an original move and find support or resistance at the key Fibonacci levels before it continues in the original direction. These levels are created by drawing a trendline between two extreme points and then dividing the vertical distance by the key Fibonacci ratios of 23.6%, 38.2%, 50%, 61.8% and 100%.

Elliott Wave Theory

Theory named after Ralph Nelson Elliott, who concluded that the movement of the stock market could be predicted by observing and identifying a repetitive pattern of waves.

Based on rhythms found in nature, the theory suggests that the market moves up in a series of five waves and down in a series of three waves.

The key difference between the Elliott Wave Principle and other cyclical theories is that this theory suggests no absolute time requirements for a cycle to complete.

Long Term Waves

Medium/Short Term Waves

Volume

The number of shares or contracts traded in a security or an entire market during a given period of time. It is simply the amount of shares that trade hands from sellers to buyers as a measure of activity.

Volume is an important indicator in technical analysis as it is used to measure the worth of a market move. If the markets have made strong price move either up or down the perceived strength of that move depends on the volume for that period. The higher the volume during that price move the more significant the move.

Charts Formations

Head and Shoulders

This formation is generally seen at the end of long trends. Completion of the formation changes from 1 month to 1 year and it is a very important signal for trend reversal.

Volume is very important for Head and Shoulders formation. The most of the volume occurs under left shoulder and decreases significantly during correction. After pull back, prices start to increase again but the volume is less than that of left shoulder which indicates a weakness. Since the volume is not enough to carry the prices to new highs, a new correction starts. Decreasing volume is the first warning signal for the formation. The right shoulder is the last attempt with lower volume. Breaking of the neck line confirms the Head and Shoulders formation and down trend starts.

Sometimes the reverse of the Head and Shoulders formation can be seen at the end of bear market, this is an early signal for an uptrend.

Sometimes multiple head and shoulders formation can be seen. Interpretation is the same with the head and shoulder.

Triangles and Wedges

Symmetrical Triangle: form with lower highs and higher lows. Because of their shape, they can act as either a continuation or a reversal pattern. This will be signaled by the breakout. An upward breakout is a bullish signal, while a downward breakout is bearish.

Ascending Triangle: is formed by equal highs and higher lows. It is a bullish signal, whether encountered in an up- or down-trend. It is most often observed as a continuation pattern in an up-trend but is a strong reversal signal when witnessed in a down-trend.

Descending Triangle: form with equal lows and lower highs. A bearish signal, the pattern is normally observed as a continuation pattern in a down-trend but can be a powerful reversal signal when encountered in an up-trend.

Falling wedge: forms with lower highs and lower lows. A bullish signal, a falling wedge is a continuation signal in an up-trend and a reversal signal when observed in a down-trend.

Rising wedge: is formed by higher highs and higher lows. A bearish signal, the pattern is normally a continuation signal in a down-trend but acts as a reversal signal when encountered in an up-trend.

Symmetrical Triangles

All triangle formations are consolidation formations. In symmetrical triangle direction of the trend is not known. It is only can be identified after one of the line broken. Prices go up if upper line broken, and go down if lower line broken.

Volume is very important for triangle formations. Volume should decrease during the formations.

Descending Triangles

It is a signal for down trend. Price target can be found approximately by drawing a parallel line to descending line.

Ascending Triangles

It is a signal for uptrend. By drawing a parallel line to descending line, price target can be calculated approximately.

Rising Wedges

Rising wedges are reaction formations appears in down trends and and they are generally traps. Volume is a very important parameter to identify rising wedges. It decreases while the prices are going up and shows the weakness of the rising attempt. When the prices break down the bottom line, a selling crazy may start. So, it is required to be careful for this kind of formation.

Falling Wedges

Falling wedges are opposite of the rising wedges and pull back reactions during the up trends. Sellers continue to believe the securities in their hand and do not want to sell so, volume decreases significantly. When the upper line is broken, generally a rally starts. So this formation is a chance to buy a security with available prices in an uptrend.

Double Bottoms

Double bottoms formations are generally seen at the end of down trends and it is an early signal for a rally.

Double Tops

Double tops point out a weakness of the uptrend and warn for a change of trend. Generally a selling crazy starts when this formation is indicated.

Candlestick Patterns

There are really only 12 major Candlestick patterns that need to be committed to memory. The Japanese Candlestick trading signals consist of approximately 40 reversal and continuation patterns. All have credible probabilities of indicating correct future direction of a price move. The following dozen signals illustrate the major signals. The definition of "major" has two functions. Major in the sense that they occur in price movements often enough to be beneficial in producing a ready supply of profitable trades as well as clearly indicating price reversals with strength enough to warrant placing trades.

Utilizing just the major Japanese Candlesticks trading signals will provide more than enough trade situations for most investors. They are the signals that investors should contribute most of their time and effort. However, this does not mean that the remaining patterns should not be considered. Those signals are extremely effective for producing profits. Reality demonstrates that some of them occur very rarely. Other formations, although they reveal high potential reversals, may not be considered as strong a signal as the major signals.

Below is the summary of the major candlestick formations and their definitions. For free print version of signal, with pattern recognition and trading psychology - [Click Here](#) Additionally, clicking on any of the individual signals will take you to the specific trading criteria plus signal enhancements and pattern recognition for printout.

A Doji is formed when the open and the close are the same or very close. The length of the shadows are not important. The Japanese interpretation is that the bulls and the bears are conflicting. The appearance of a Doji should alert the investor of major indecision.

The Gravestone Doji is formed when the open and the close occur at the low of the day. It is found occasionally at market bottoms, but its forte is calling market tops. The name, Gravestone Doji, is derived by the formation of the signal looking like a gravestone.

The Long-legged Doji has one or two very long shadows. Long-legged Doji's are often signs of market tops. If the open and the close are in the center of the session's trading range, the signal is referred to as a Rickshaw Man. The Japanese believe these signals to mean that the trend has "lost its sense of direction."

The Bullish Engulfing Pattern is formed at the end of a downtrend. A white body is formed that opens lower and closes higher than the black candle open and close from the previous day. This complete engulfing of the previous day's body represents overwhelming buying pressure dissipating the selling pressure.

The Bearish Engulfing Pattern is directly opposite to the bullish pattern. It is created at the end of an up-trending market. The black real body completely engulfs the previous day's white body. This shows that the bears are now overwhelming the bulls.

The Dark Cloud Cover is a two-day bearish pattern found at the end of an upturn or at the top of a congested trading area. The first day of the pattern is a strong white real body. The second day's price opens higher than any of the previous day's trading range.

The Piercing Pattern is a bottom reversal. It is a two candle pattern at the end of a declining market. The first day real body is black. The second day is a long white body. The white day opens sharply lower, under the trading range of the previous day. The price comes up to where it closes above the 50% level of the black body.

Hammer and Hanging-man are candlesticks with long lower shadows and small real bodies. The bodies are at the top of the trading session. This pattern at the bottom of the down-trend is called a Hammer. It is hammering out a base. The Japanese word is takuri, meaning "trying to gauge the depth".

The Morning Star is a bottom reversal signal. Like the morning star, the planet Mercury, it foretells the sunrise, or the rising prices. The pattern consists of a three day signal.

The Evening Star is the exact opposite of the morning star. The evening star, the planet Venus, occurs just before the darkness sets in. The evening star is found at the end of the uptrend.

A Shooting Star sends a warning that the top is near. It got its name by looking like a shooting star.

The Shooting Star Formation, at the bottom of a trend, is a bullish signal. It is known as an inverted hammer. It is important to wait for the bullish verification. Now that we have seen some of the basic signals, let's take a look at the added power of some of the other formations.

Fundamental Analysis

A method of evaluating a security by attempting to measure its intrinsic value by examining related economic, financial and other qualitative and quantitative factors. Fundamental analysts attempt to study everything that can affect the security's value, including macroeconomic factors (like the overall economy and industry conditions) and individually specific factors (like the financial condition and management of companies).

Market Capitalization

It is the total dollar value of all outstanding shares and is calculated by multiplying the number of shares outstanding by the current market price of one share.

Brokerages vary on their exact definitions, but the current approximate classes of market capitalization are:

- Mega Cap: Market cap of \$200 billion and greater
- Big/Large Cap: \$10 billion to \$200 billion
- Mid Cap: \$2 billion to \$10 billion
- Small Cap: \$300 million to \$2 billion
- Micro Cap: \$50 million to \$300 million
- Nano Cap: Under \$50 million

Earnings Before Interest, Taxes, Depreciation and Amortization - EBITDA

An indicator of a company's financial performance which is calculated as follows:

EBITDA= Revenue - Expenses (excluding tax, interest, depreciation and amortization)

EBITDA can be used to analyze and compare profitability between companies and industries because it eliminates the

effects of financing and accounting decisions. However, this is a non-GAAP measure that allows a greater amount of discretion as to what is (and is not) included in the calculation. This also means that companies often change the items included in their EBITDA calculation from one reporting period to the next.

Price-Earnings Ratio - P/E Ratio

A valuation ratio of a company's current share price compared to its per-share earnings.

Calculated as:

MARKET VALUE PER SHARE/EARNINGS PER SHARE

For example, if a company is currently trading at \$43 a share and earnings over the last 12 months were \$1.95 per share, the P/E ratio for the stock would be 22.05 ($\$43/\1.95).

EPS is usually from the last four quarters (trailing P/E), but sometimes it can be taken from the estimates of earnings expected in the next four quarters (projected or forward P/E). A third variation uses the sum of the last two actual quarters and the estimates of the next two quarters. Also sometimes known as "price multiple" or "earnings multiple".

Dividend Yield

A financial ratio that shows how much a company pays out in dividends each year relative to its share price. In the absence of any capital gains, the dividend yield is the return on investment for a stock. Dividend yield is calculated as follows:

ANNUAL DIVIDENDS PER SHARE / PRICE PER SHARE

52 wk range

The highest and lowest price at which a stock traded in the past 12 months, or 52 weeks.

Float

The total number of shares publicly owned and available for trading. The float is calculated by subtracting restricted shares from outstanding shares.

Short ratio

The total number of shares of a security that have been sold short by customers and securities firms.