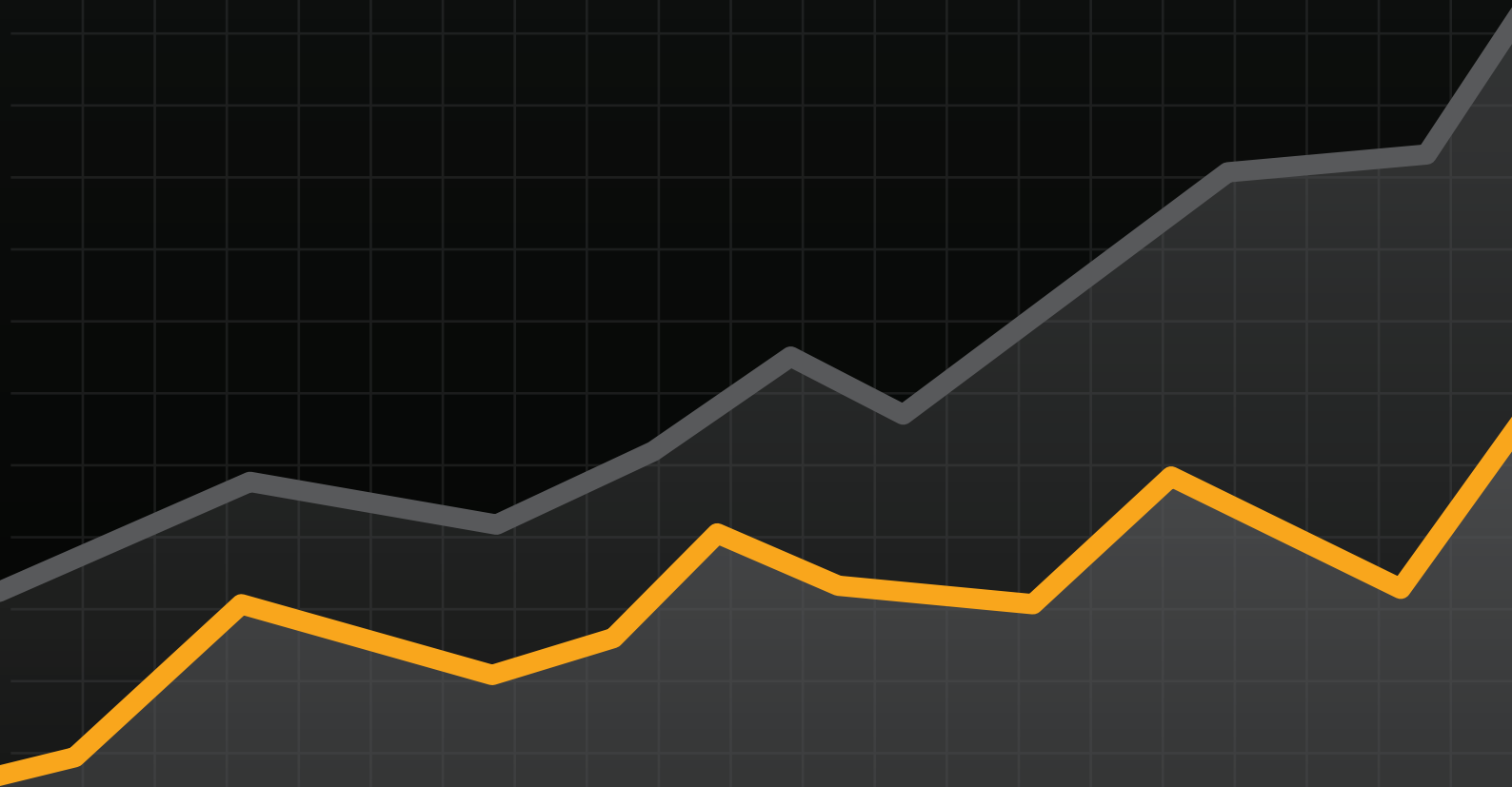


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INTRODUCTION TO TECHNICAL ANALYSIS

Editor Matthew Carstens



The Investing.com.com education center was created in order to serve as a guide to the novice trader over all the essential aspects of foreign exchange, in a fun and easy-to-understand manner.

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General Understanding

The Primary objective of this guide is to equip you with the prerequisite knowledge needed when analyzing technical trends in the Forex market, and help educate you about a number of the most popular technical trading tools which can help you enhance your Forex investment decisions. technical Analysis uses past economic data to forecast future price levels. Before trading in the markets, it is essential that all Forex traders equip themselves with such knowledge.

Forex Analysis can be classified under two categories:

- Fundamental
- Technical

Fundamental Analysis

Forecasts price levels in the currency markets by analyzing economic and political data and scenarios in an effort to predict which currency may gain strength or weakness versus another over time.

Technical Analysis

Forecasts market trends usually with chart analysis to forecast price fluctuations in different currency markets.

This guide will examine the principles of technical analysis and some of the tools that are used for such analysis.

Basic Assumptions

Technical analysis is based on three main assumptions:

- In technical analysis, we are not necessarily focused on the reasons for any political instability or the reasons for an economic crisis rather we are more interested in watching how price levels change based on economic or political events, and then how the price behaves relative to price levels of the past.
- Major currency rates have been shown to form noticeable patterns over time. Technical analysis attempts to forecasts these patterns as a means to help set risk parameters, or find profit opportunities for the trader.

- Technical Analysis can be very subjective as pattern recognition, wave counts, overbought/oversold indicators or even trend lines are almost never agreed upon as a whole. These tools should be used as a guide, or just one tool out of many, in helping a trader make their trading decisions.

The Necessity of Technical Analysis

The majority of Forex traders nowadays rely a great deal on technical analysis and fundamental analysis for formulating their trading strategies. The main advantage of technical analysis over the fundamental analysis is that it can be used for diverse market sectors and currencies simultaneously. Whereas fundamental analysis usually requires complete comprehensive details about the political and economic scenario of a particular country and as such traders will find it difficult to accumulate knowledge of more than a handful of countries at a time.

Novice traders may initially be turned off by the complexity of technical analysis. However, every long term successful trader understands the need of a trading strategy, and Technical Analysis has proven to be a reliable tool for predicting price movements in Forex to help formulate trading strategies for years. Nevertheless, it cannot be taken as 100% correct as there are many factors which affect currency prices. It is for this reason that most traders use an amalgamation of fundamental and technical analysis to help them formulate their trading strategies.

Accessibility

All online Forex brokers should provide access to an extensive variety of technical analysis charts. There are charting softwares which are free and also detailed professional charts which require a monthly subscription. These charts are updated in real time and provide several options for the user to view price movements and the different patterns that they may form.

Your broker might provide these charts on their website or may include downloadable charts as part of the trading software they provided to you.

Before venturing into live Forex trading, it would be wise to get familiar with market trends by analyzing price changes and price levels using your charts for a while. You should try to take note of their fluctuations and see if you notice any patterns developing. You can do this through practice accounts which are usually provided by brokers for novice traders to trade in with no real money transacted.

By using these practice accounts, you will be able to:

- Get acquainted with Forexcharts and market trends
- Familiarize yourself with the trading softwares which the broker uses.

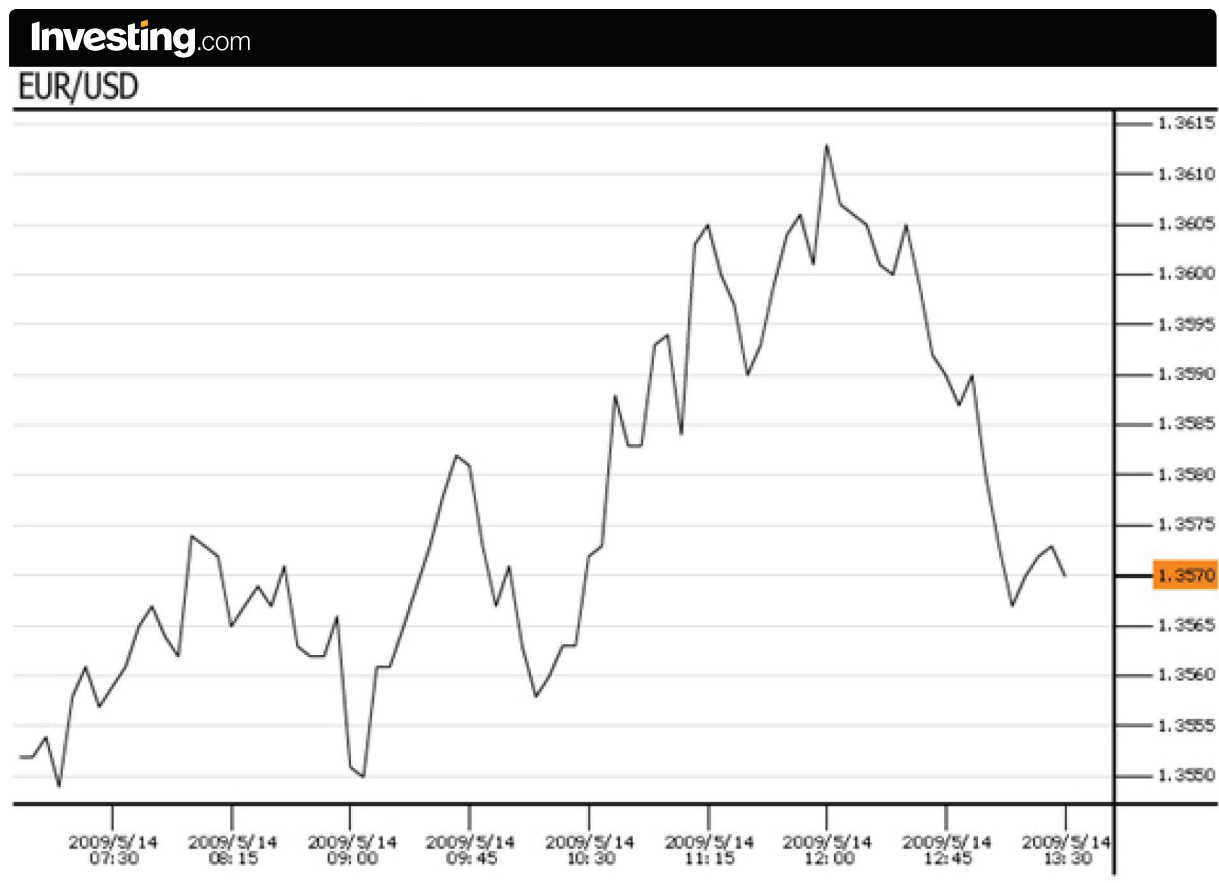
Common Chart Types

Charts provide details about Forex price fluctuations during a specified period of time. The specified time period can range from a minute to a few years. These prices can be charted on simple line graphs or the price fluctuations can be depicted with Bar charts or Candlestick charts.

Line Charts

Line charts provide you with an overall picture of the price fluctuation during a particular period of time. Although they may not have the details which are shown in a Bar or Candlestick charts, their simplicity makes them easy to read and to spot trends. They are just depicted by a simple line connecting one market closing price to the subsequent closing price.

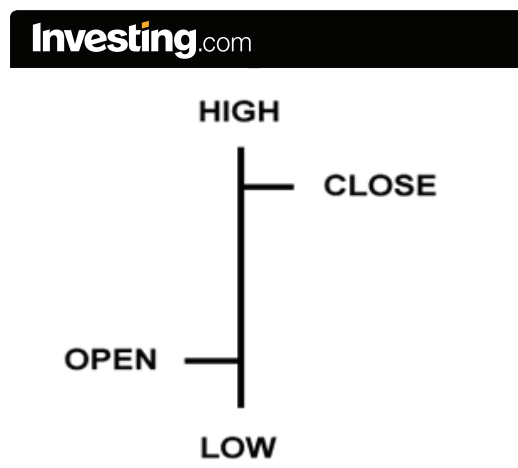
Below is an example of a simple line chart where you can see price on the Y-axis and time on the X-axis:



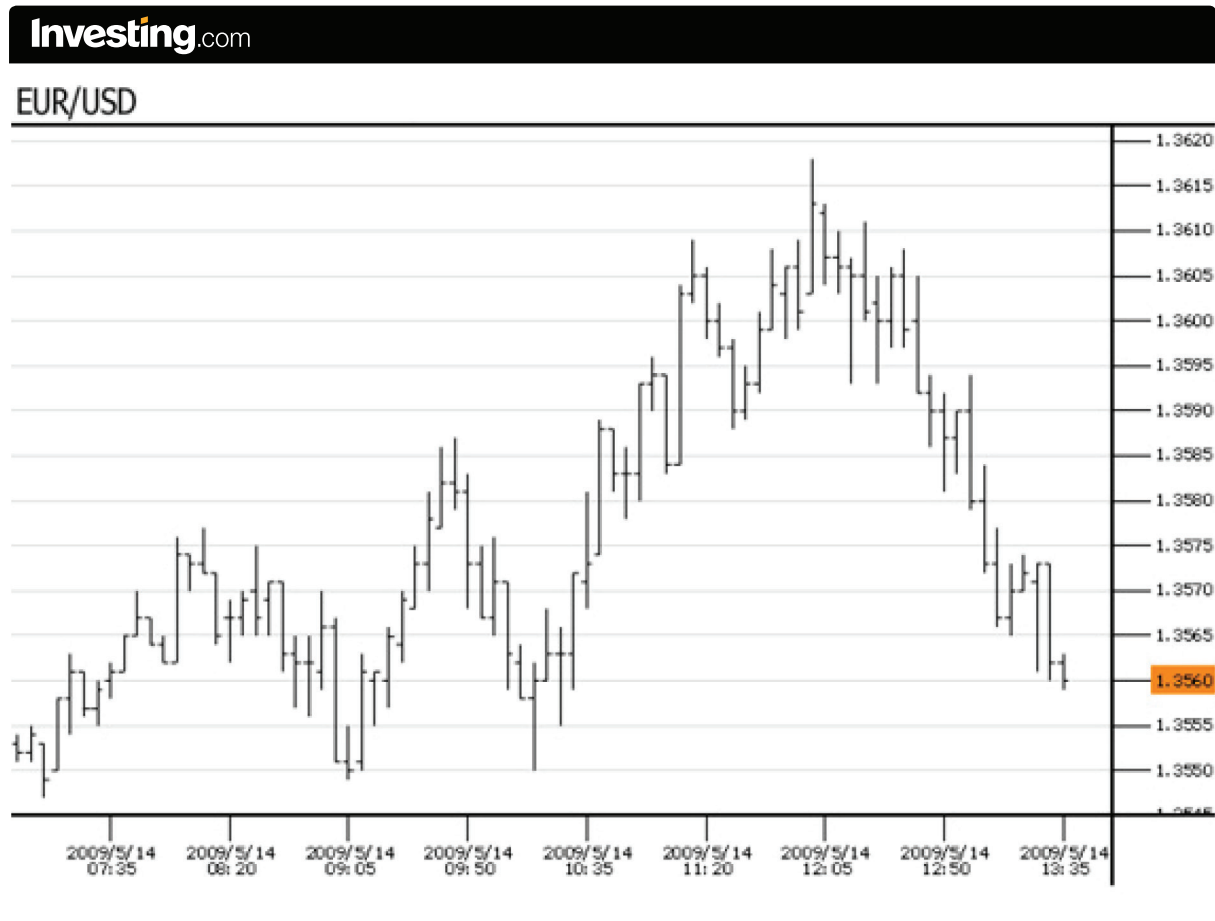
Bar Charts

Bar Charts provide you with much more details than the simple Line-Charts. The length of the bar denotes the price spread (or movement) within a specific time period. If there is a big difference between the high and low prices within that time period, this would be indicated by a long bar. The opening price of this time period is denoted by the left tab while the closing price is denoted by the right tab of the bar. Thus, you can immediately see the direction of the price movement (up or down) as well as how much the price moved within that time period. These charts depict the Open, High, Low and the Closing price of the particular currency and as such they are also normally called OHLC chart.

An example of a price-bar is displayed in the figure below:



The figure below depicts an example of a bar chart where you can see price on the Y-axis and time on the X-axis:

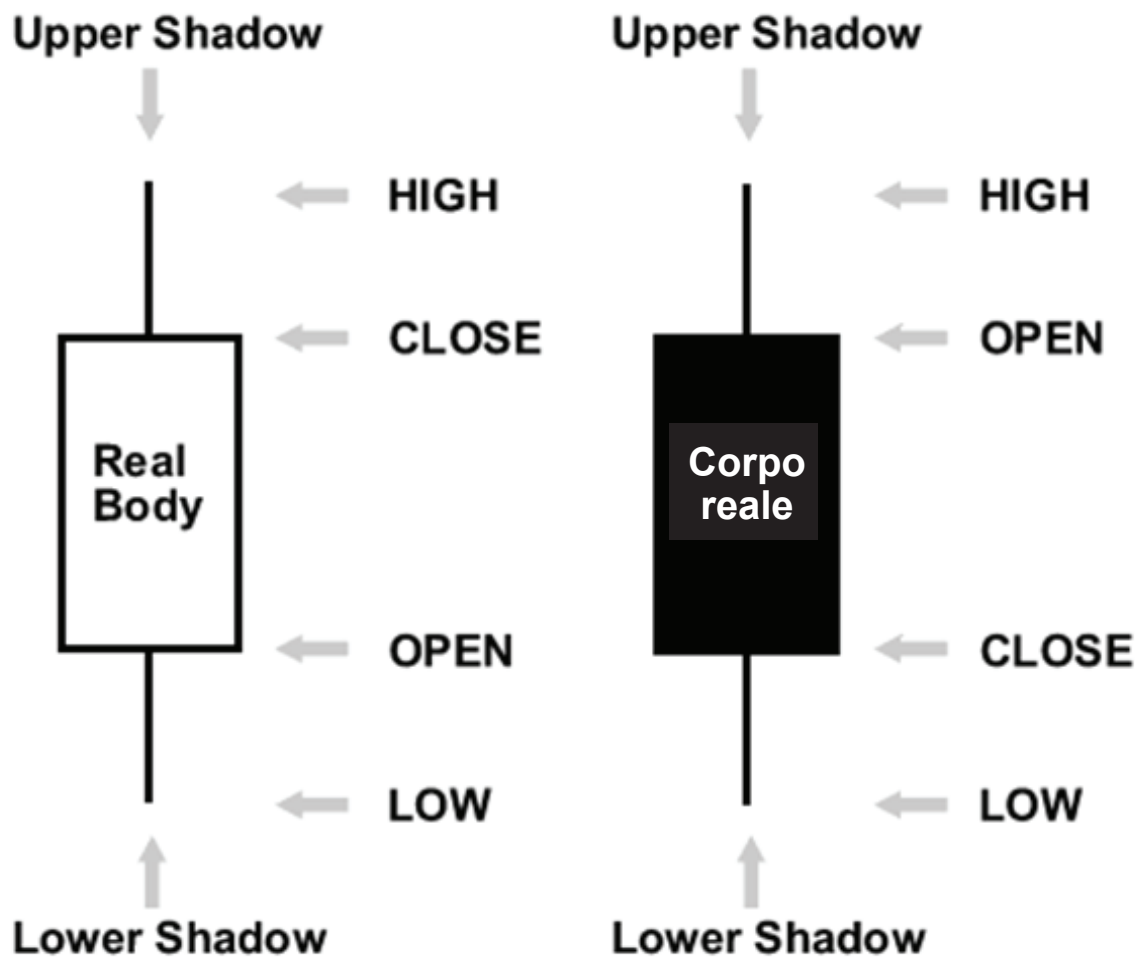


Candlestick Charts

Candlestick charts are a Japanese invention used for evaluating rice contracts. Candlestick charts resemble bar charts in many ways as they also show the Open, High, Low and Close prices of a specific period. Comparatively, they are far easier to read than bar-charts as they form a wide body between the Open and Close price in a time period which can be colored in to show upward or downward price movement by time period.

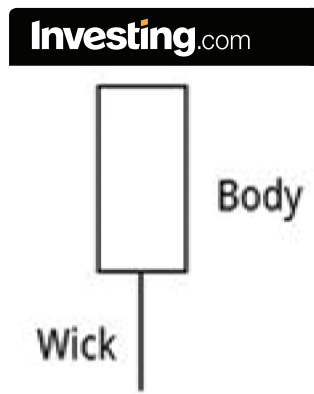
- Green or white color candlesticks depict increasing prices.
- Red or black color candlesticks depict decreasing prices.

In the example below where the body has been filled in with black, the opening price is shown by the top of the body while the closing price is denoted by the bottom of the body. This signifies that during this time period the price declined in value. If the body was instead White then it means that the closing price is higher than the opening price and an increase in value.

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You will also hear of the term “wick”, which of course draws its name from a standard candle wick you’d see on a birthday cake. The wick signifies the price range the asset moved through during a period of time but did not open or close at (the Body).

It signifies areas where buyers and sellers once battled at.



An example of a candlestick chart is shown below. Here “White” is represented by the color Green while “Black” is represented by the color Red.

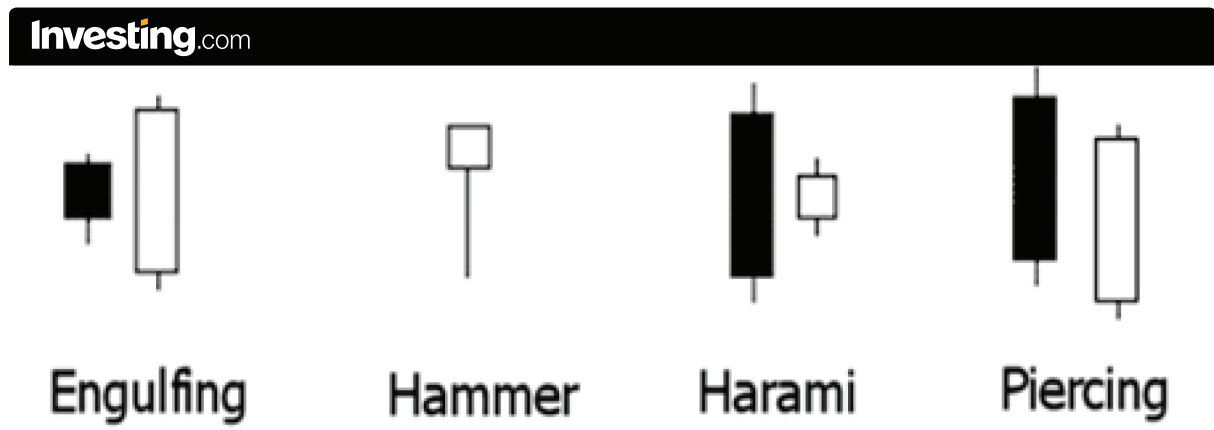


Candlestick Patterns

Candlesticks when seen in comparison with adjacent candlesticks may offer an indication of possible market changes that can also assist in chart analysis. There is an entire school of thought on the recognition and use of these, though they can offer insights on continuation patterns and market reversals on a particular asset.

As noted above, the shapes of candlesticks are determined by the Open, High, Low, and Close of a particular asset in a particular time frame. So within that time frame you are actually able to witness the battle between both the buyers and sellers that can give you clues as to what price action may happen next.

Here are a few examples of some popular ones, their fancy names, and how they are most commonly used.



Engulfing

This pattern clearly shows that sellers (shown in Black) are in control in the time period on the left but are not able to make any drastic moves (hence the small candle), then on the next time period a much larger formation occurs where a bullish (shown in White) candle completely “engulfs” the Black candle with its entire body. This is a very good indication that Bulls are now in control and upward pricing pressure is probable. This pattern of course works in the opposite way, where a Bearish candle engulfs a smaller Bullish one.

Hammer or Shooting Star

This pattern shows that buyers opened in this time frame near the high of the candle, and for some reason lost a lot of ground as prices went down quite a bit thereafter. Interestingly though, is that during this same time frame the buyers fought back and actually closed higher than when they started. This is a very powerful signal that whatever weight the sellers had has been used up as Bulls are clearly in control. This pattern also works in the opposite direction where the body is at the bottom (Sellers win) and the line (also known as the “Wick”) is above it.

Harami

The Harami draws a lot of similarities to the Engulfing patterns except whereas the Engulfing Patterns shows a clear winner between Buyers and Sellers with momentum in its favor, the Harami shows that the momentum is lost and there is still no clear winner between the buyers and sellers. When this pattern is seen, price direction may be shifting, or consolidation is occurring before another decisive move takes place. Caution should be on your mind here.

Piercing or Dark Cloud Cover

This pattern shows how market sentiment can change quickly in just two time frames. The candle on the left clearly shows bears in control and a lot of momentum. On the next candle, the exact opposite occurs, even though the day opened lower than the previous close. The day closed almost at the high of the previous day, showing that bullish momentum is back in play. The Dark Cloud Cover pattern is shown when the exact opposite occurs (Bulls have the momentum, but Bears open the day piercing the previous time periods highs and closing much lower)

Doji

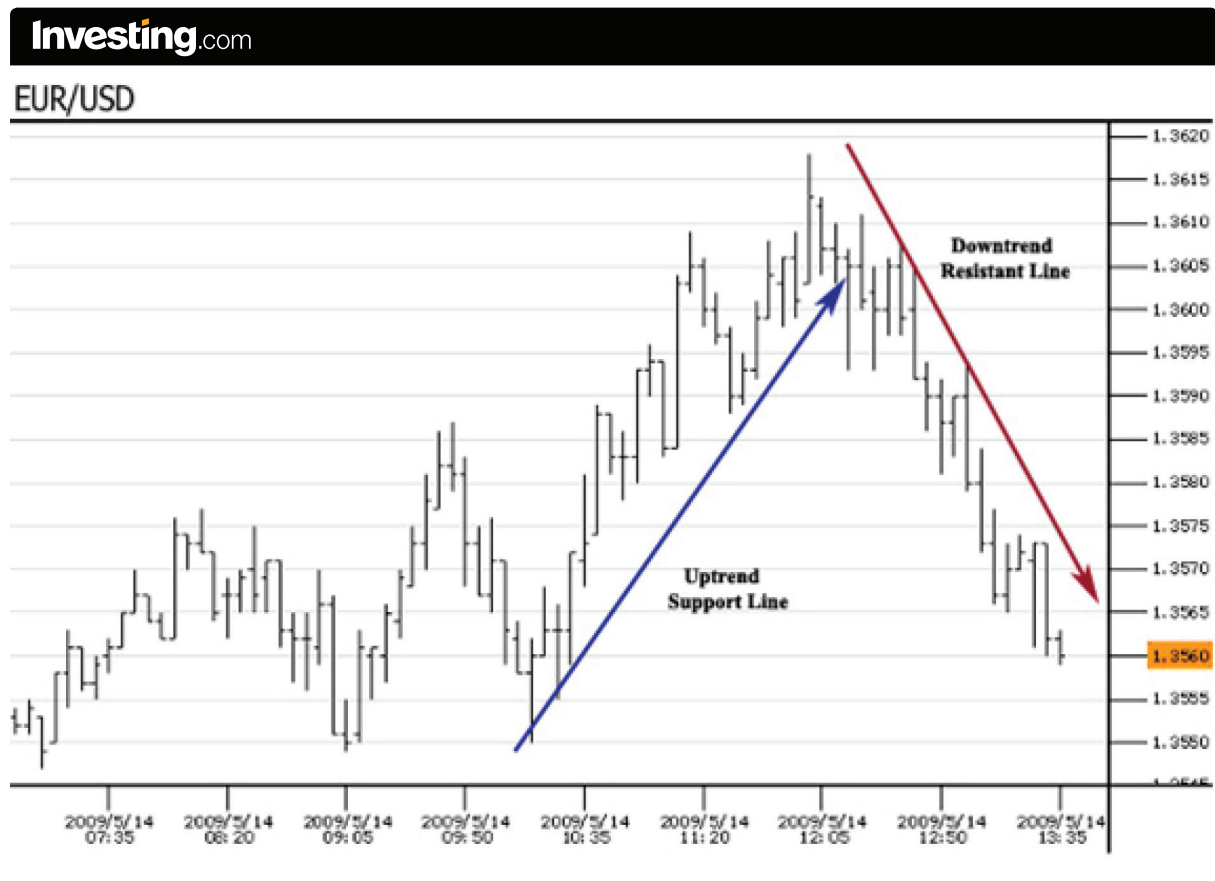
Probably the most famous pattern, because it is so easy to spot. The Doji clearly shows a struggle between buyers and sellers closing at just about the same place it opened at with wide ranges seen on the top and bottom of it. This pattern is very good at signaling a reversal and can be seen at market tops and bottoms. Just be sure if you see one that it isn't due to market inactivity (low volatility) and that the Wicks have some length to them on either side.

Trends and Ranges

Once you have decided to trade in Forex, you have to learn some of the terminology used in Forex Trading. This is critical as you need to understand what you are doing before you can begin trading in Forex. the meaning of the terms used and their implications are keys towards grasping a better understanding of the Forex market. You need to be aware of the trading trends as well as the trading ranges before you can formulate any trading strategies. This market requires technical knowledge, and you must never trade it before learning important trading concepts. If you choose to adopt this approach, what you will end up with eventually is an empty pocket and a lot of frustrations. the correct way to go about venturing into this market is to ensure that you have a firm understanding of what is happening in the market. the only way in which this can be achieved is by educating yourself. there is no shortcut.

Trading Trends

Trading trend is said to occur when the prices in the Forex market move constantly in one particular direction. It is considered Bullish when prices are on the upswing and investors' confidence is running high. The trend is regarded as Bearish when the fluctuations are on the downswing. Whenever we are defining a trend, always keep in mind that the peaks (highs) & troughs (lows) of prices are also moving in the same general "step" formation. From this, you can draw support lines under an uptrend or resistant lines above a downtrend. Once these lines have been breached, it is assumed that the trend has completed its cycle and will start to reverse. Remember, that trend lines are subjective, but do give you a good clue on general price levels for entry or stop loss decisions. Below is an example of a diagram with an uptrend and downtrend with the support and resistant lines drawn for you.



Trend Reversal

Trend reversal simply means that the course of market prices is changing direction, or that the “trading trend” has broken down, whereas in an uptrend prices noticeably failed to make a new high, and are now breaching (or going through) what was once a price support level. This failure clearly shows that something has changed and a reevaluation needs to take place.

During this process there are a number of common chart formations that occur with terms like “Double Top” (or Double Bottom), or even “Triple Top” (or Triple Bottom). Think of a Double Top as a giant letter “M”, a Double Bottom then as a letter “W” (see the two peaks or troughs in each?), and a Triple Top/Bottom as just adding another peak or trough to each.

Trading Range

Trading range essentially refers to a sideways chart pattern, or when prices are generally consolidating and not making any noticeable moves upward or downward for an extended period of time. Normally it is used to denote the latent period before a new trend starts, also known as “building a base” or consolidation.

Understanding the current trend is very important for any investor, not only for their own analysis but because so many other traders are looking at the same formations and basing their decisions on it as well. In saying this, that adds a bit of crowd mentality to trading which you can visualize through your charts and is why understanding chart formations and spotting chart patterns are so important in understanding where prices may, or may not, go in the future.

Chart Formations & Patterns

Chart patterns are useful for spotting breakouts before they occur which can assist you not only in understanding future market trends, but also assist you with much more specific price targets for your entry and exit positions.

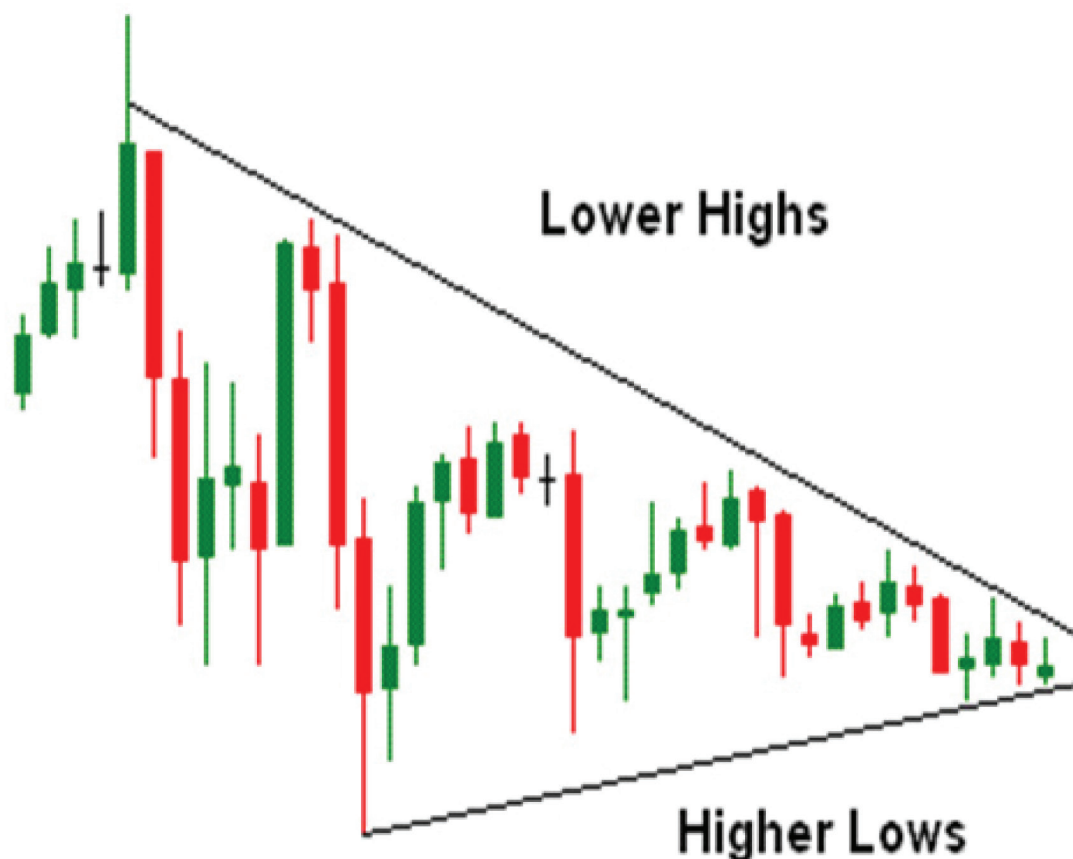
The patterns covered in this topic include:

- Symmetrical Triangles
- Ascending Triangles
- Descending Triangles
- Double Top
- Double Bottom
- Head and Shoulders
- Reverse Head and Shoulders

Symmetrical Triangles

These triangles are chart formations in which the slope of the price's peak and price's low converge at a point making it look like a triangle as illustrated in the chart below.

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During this formation period, the market is experiencing lower “highs” and higher “lows”. This essentially implies that neither buyers nor sellers are generating enough momentum to push the price for a new trend. If we regarded this as battle between both buyers and sellers, this would indicate a stalemate, for now. This is also known as consolidation pattern.

With reference to the above chart (GBP/USD- April 2009), both the buyers and sellers are not pushing the price toward either side. As this happens, the market is experiencing lower “highs” and higher “lows”. Once these slopes converge, a “breakout” becomes imminent. Although we do not know if the market is going to breakout on the low side or high side, we definitely know that the breakout will happen and most likely volatility will increase making for a strong move in either of the directions.

To take advantage of this, we either place entry orders above the lower “highs” slope (Buy Stop to enter into a position) or below the lower “lows” slope (Sell Stop to enter into a position). Since the breakout is imminent, we can capitalize on this information regardless of the direction of the price movement.

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Ascending Triangles

These formations occur when there is a slope of higher lows and a resistance level (usually horizontal in nature). This is due to the fact that there is a price level in which buyers cannot seem to breach. Nevertheless, they are gradually pushing the price up as shown by the higher lows.





In the example above the resistance level was indeed broken and the price skyrocketed upward.

Descending Triangles

As the name implies, these triangles are the opposite of ascending triangles. Here, there is a succession of lower highs which constitute the upper line. The lower line represents the support level which the price is having difficulty breaching.



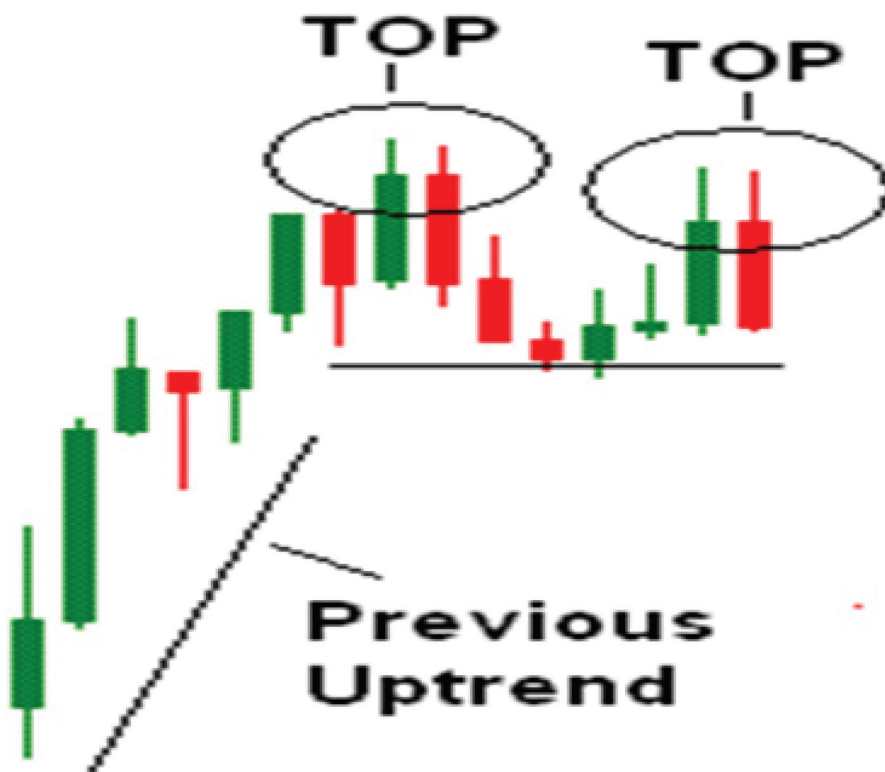
In the EUR/USD- Dec 2008 chart above, you can observe that the price is slowly reaching lower highs. This indicates that the sellers are gaining momentum against the buyers. Again, generally speaking, this formation suggests that the support line will eventually be breached and the decline in price will continue, however prudent traders should prepare themselves if this does not occur.



In this scenario, the price was able to breach the support line and decline extremely fast.

Double Top

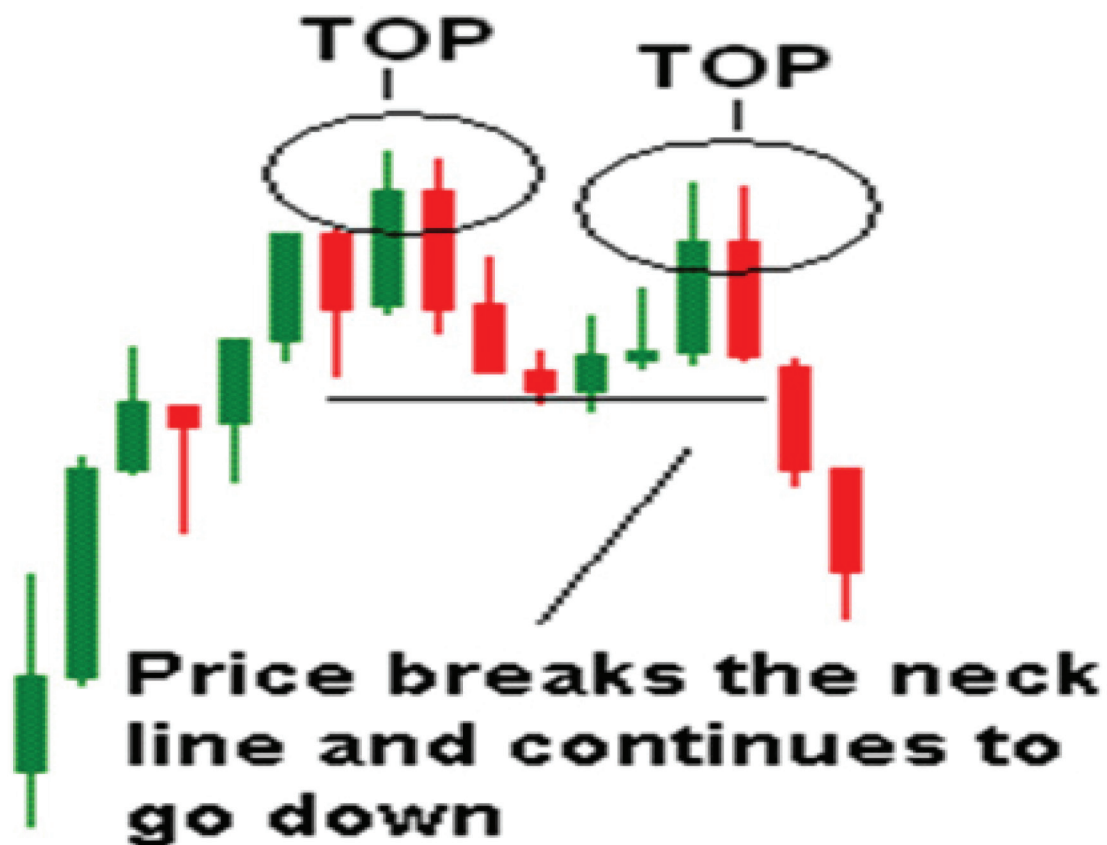
This is a reversal pattern which comes about after an extended move up. The tops are price peaks which are the result of the price reaching a certain level that cannot be breached. Upon reaching this level, the price bounces off the level slightly but rises again in an effort to "test" that level again. If the price is pushed off again then what you get will be a Double Top formation.

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In the GBP/USD – Oct 2008 chart, you can observe the two tops after a strong rally upwards. You can also observe that the second top is unable to reach the high of the first top. This is a strong indication that a reversal is going to happen as buying pressure is waning.

What we do in this case is to place our entry order just below the neckline in anticipation of a downtrend.

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With reference to the chart above, the price breached the neckline and declined sharply. Take note that double tops formations indicate a trend reversal. It is a good idea to watch out for these especially after a strong price rallies.

Double Bottom

These are also trend reversal formations. However, instead of going short we are looking to go long here. They occur after an extended downtrend and when two “bottoms” are formed.



In the EUR/USD – Oct 2008 chart, two “bottoms” are formed when the price was not able to breach below a certain level. If you observe carefully, the second bottom is not able to match the level of the first bottom. This actually indicates waning selling pressure. In this scenario, you should place your entry order above the neckline.



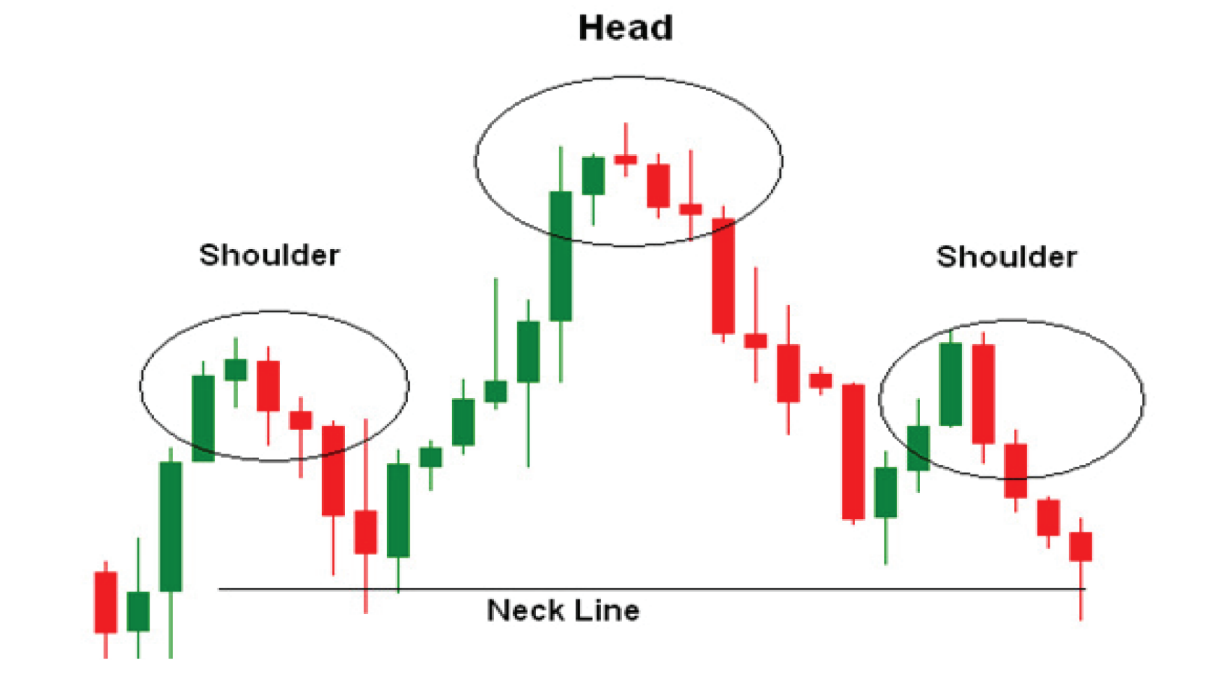
As with double tops, double bottoms formations are indications of trend reversals.

NOTE: There are “Triple” Tops and Bottoms as well. These are simply cousins of the Double Top (or Bottom) and look almost the same, only that they have a 3rd peak or trough added to their formation.

Head and Shoulders

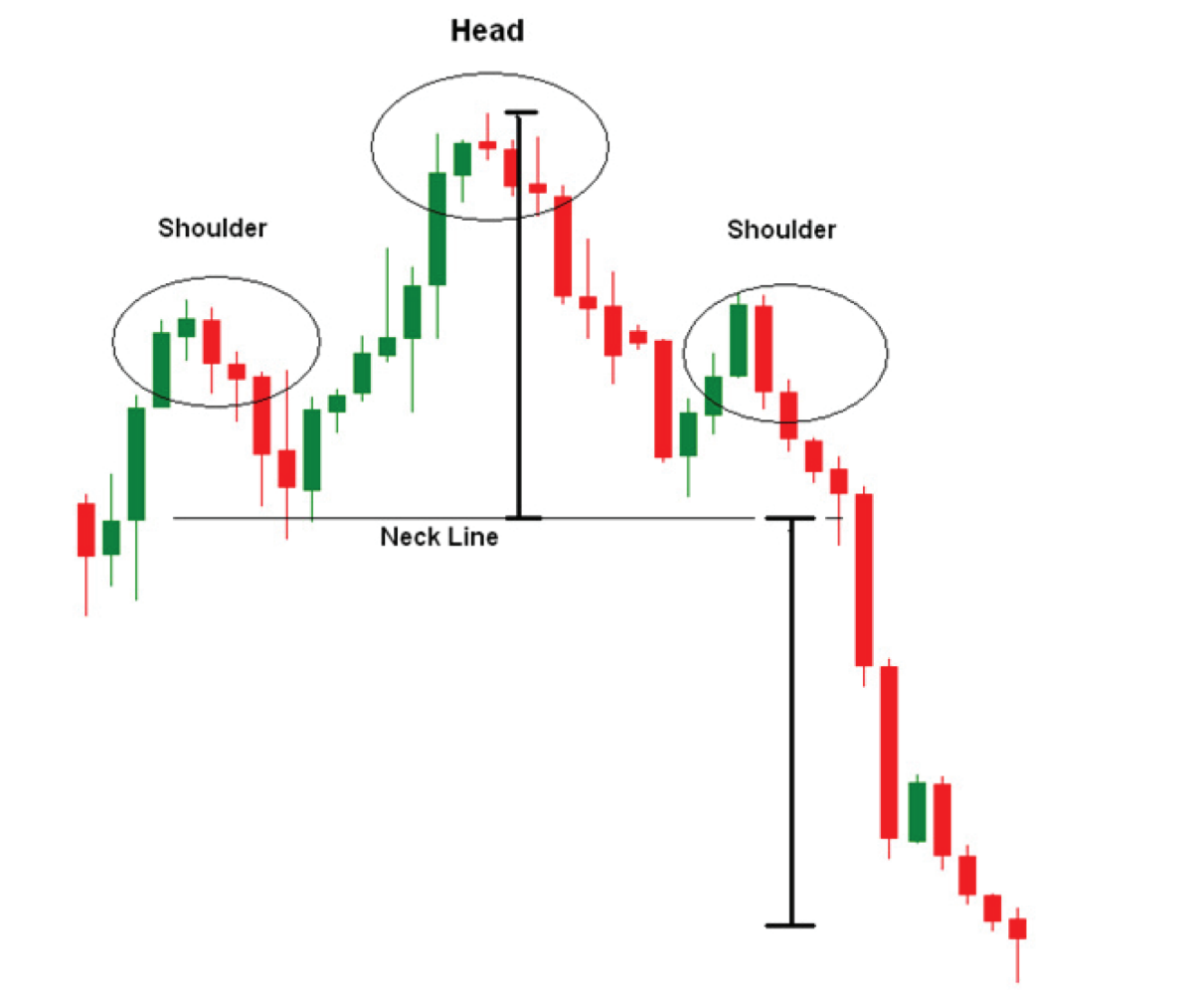
Another trend reversal formation is the Head & Shoulder pattern. This is characterized by a peak (shoulder) followed by another higher peak (head) and then by another lower peak (another shoulder). The lowest points of the two price troughs are connected by a “neckline”. The slope of this particular line can be up or down but generally if the slope is downward, the signal is more reliable

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The above figure illustrates the head & shoulder pattern very clearly. The head is the middle peak and is the highest in the formation. The other two peaks are the shoulders and do not exceed the height of the head. With regards to this formation, entry orders are placed below the neckline. It is also possible to work out a target by taking the distance from the top of the head to the neckline. This will indicate roughly how much the price will fall after it breaches the neckline.

From the chart below, you will observe that as the price breaches the neckline; its decline is roughly the length of the head to the neckline.

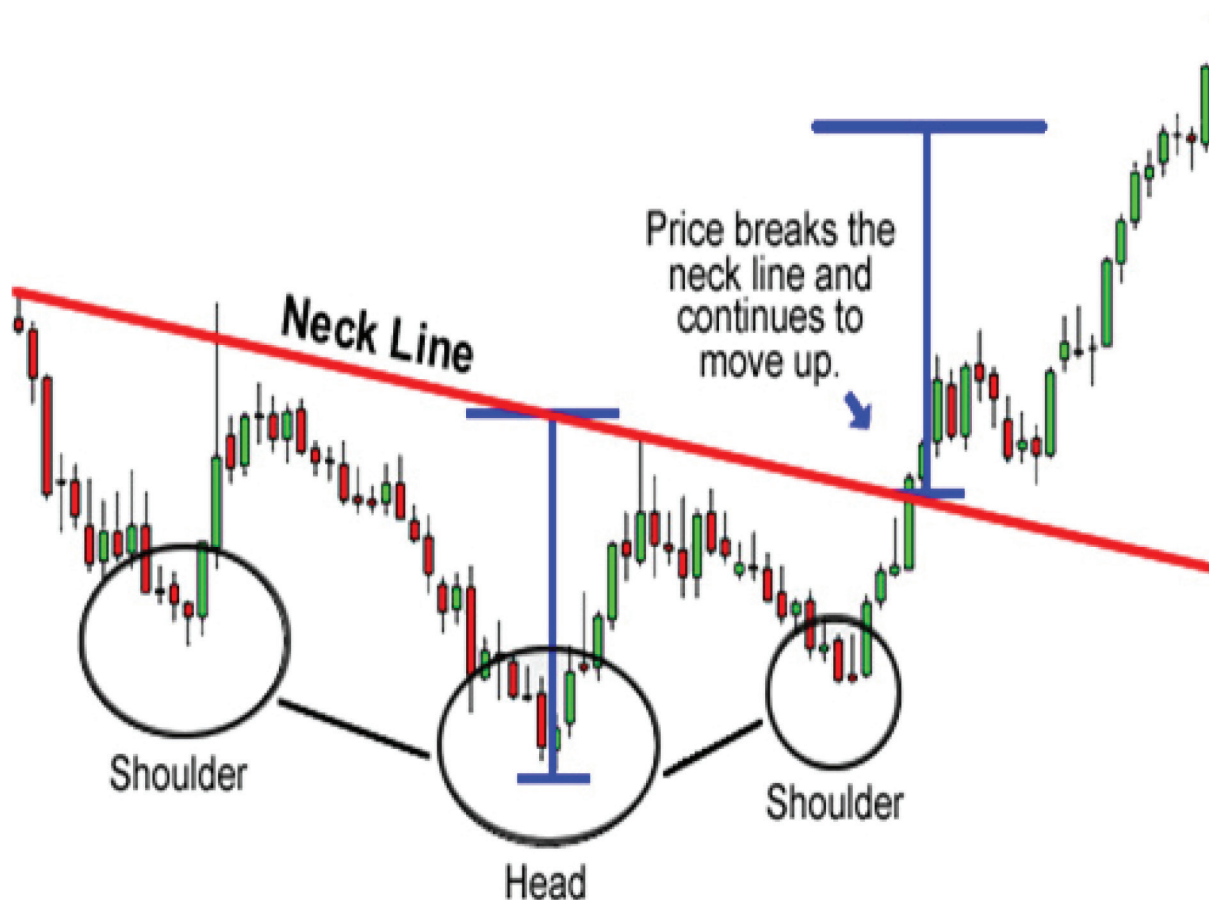
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Reverse Head & Shoulders

As the name imply, this is an inverse head & shoulders formation. Instead of peaks, we have price valleys here. A valley (shoulder) is followed by an even lower valley (head) and then is followed by another higher valley (shoulder).

From the figure below, you can discern it as another head & shoulder pattern only that it is upside down. This formation calls for us to try long position above the neckline. How much the price will move upwards approximately after breaching the neckline can be calculated by taking the distance between the head and the neckline. This distance is roughly how much the price will move upwards after it crosses the neckline.

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From the chart above, you can see that the price climbed up nicely after breaching the neckline.

Chart Formation Highlights

Symmetrical Triangles

- Comprise of higher “lows” and lower “highs”.
- Entry orders are placed above the slope of the lower highs and below the slope of the higher lows.

Ascending Triangles

- Comprise of a resistance line and higher “lows”.
- Denote that the price may breach the resistance line and proceed to climb higher.
- Entry orders should be placed above the resistance line and below the higher “lows” in the event the resistance line is too strong.

Descending Triangles

- Comprises of a support line and lower “highs”.
- Denote that the price may breach the support line and proceed to decline further
- Entry orders should be placed below the support line and above the lower “highs” in the event the support line is too strong.

Double Top

- Occurs after an extended uptrend
- Characterized by 2 peaks that cannot breach a resistance level.
- Entry orders should be placed below the “neckline” of the troughs of the two peaks.

Double Bottom

- Occurs after an extended downtrend.
- Characterized by 2 valleys that cannot breach a support level.
- Entry orders should be placed above the “neckline” of the apex of the two valleys.

Head & Shoulders

- Occurs after a prolonged uptrend.
- Characterized by a peak, then another higher peak and then by a lower peak. The “neckline” is obtained by connecting the troughs of the two valleys.
- Entry orders should be placed below the neckline.
- The price target can be obtained by measuring the distance from the apex of the head to the neckline/e. This distance will indicated roughly how much the price will move after the neckline is breached.

Reverse Head & Shoulders

- Occurs after a prolonged downtrend.
- Characterized by a valley, then another lower valley and then by a higher valley. The “neckline” is obtained by connecting the apex of the two peaks.
- Entry orders should be placed above the neckline.
- The price target can be obtained by measuring the distance from the trough of the head to the neckline. This distance will indicated roughly how much the price will move after the neckline is breached.

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Chart Patterns							
Completed Patterns							
Symbol	Interval	Time(EST)	Pattern	Trend	Length	Quality	
▲ HKD/JPY	15	9:15	Triangle	Continuation	136	0.747602	
▲ HKD/JPY	15	9:15	Triangle	Continuation	115	0.638091	
▼ XAG/AUD	15	9:15	Rising Wedge	Continuation	48	0.527545	
▲ AUD/JPY	15	9:15	Flag	Continuation	14	0.923241	
▼ XAU/GBP	30	9:30	Triangle	Continuation	95	0.539298	
Emerging Patterns							
Symbol	Interval	Time(EST)	Pattern	Trend	Length	Quality	
▲ CHF/JPY	15	9:30	Flag	Continuation	24	0.732283	
▲ CHF/JPY	15	9:30	Inverse Head and Shoulders	Reversal	120	0.460234	
▲ CHF/JPY	15	9:30	Ascending Triangle	Continuation	112	0.231681	
▼ XAU/EUR	15	9:30	Rising Wedge	Continuation	33	0.49342	
▼ XAU/TRY	15	9:30	Channel Up	Reversal	38	0.458445	

Source: www.investing.com/technical/chart-patterns»

Fibonacci

Leonard Fibonacci, the famous Italian Mathematician, discovered a series of numbers that looked rather simple yet created ratios that were found throughout nature. From the arc of a sea shell, branches on a tree, or even the formation of solar systems; all of these encompass what Fibonacci found in his insights, and what many also use in chart analysis today. Fibonacci trading analysis is a vast subject but for the purposes of this introduction we will only be focusing on the most commonly used methods.

Let's begin by looking at the Fibonacci Series shown below:

1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144 ...

You will notice that each number is derived by the preceding 2 numbers. For instance $(1+1 = 2)$, $(1+2 = 3)$, $(2+3 = 5)$, even $(55+89=144)$, and so on forever.

Once you have these numbers, you are able to compute further findings and open up his, now famous, ratio's such as: .382 and .618 by dividing one number and its preceding number $(89/144 = .618)$ or $(55/89=.618)$, and so on.

You can also compute the proportion between alternate figures and what you get of this is .382. Take for example,

Example: 8 divided by 21 = 0.3809 which is close to 0.382 which they all converge to as you try larger numbers.

These proportions are also known as the "golden mean", and here is a list of the most common ratio's to recognize:

Most Common Fibonacci Retracement Levels:

.236, .382, .500, .618, .786

Most Common Fibonacci Extension Levels:

1.382, 1.618

You are not required to know how to calculate all these numbers as the trading software you use will calculate everything for you. The Fibonacci retracement levels are used as the support and resistance levels for traders. Due to the fact that so many market participants rely on these levels as a guide to make their transaction decisions, these support and resistance levels sometimes become a self-fulfilling prophecy.

In general to apply the Fibonacci levels to any chart, one needs to identify two Points, namely the Swing High and the Swing Low points on any price action. So, when starting out, simply look for obvious chart tops and bottoms to form your conclusions. Once you have those think of that high to low range as a value of 1 (or 100%). Now if you look back at your Fibonacci retracements you will see that they are really just .382 (or 38.2%) or .618 (61.8%) from the top or bottom of that high/low range you just made.

So what we are saying here is once you find a top, prices may move DOWN to a Fibonacci level (say 38.2% down, or 61.8% down) and give you a chance to enter into a long (buy) position at that time. Conversely if the market was already heading down and you spotted a significant bottom, you can then see if prices will move UP (say 38.2%, or 61.8%) for a chance to enter into a short (sell) position. Simple!

Fibonacci Retracements Illustrated

Notice below where a high and low were determined and the Fibonacci ratios are shown on the chart. You can see here the high on the EUR/USD is entered at a price of 1.35160 and the low at a price of 1.31650 with Fibonacci numbers 38.2 and 61.8 shown (among others). Examining what occurred after the market fell from its peak, you can see it retreated through the 0.236 point and just breached the 0.382 level (without closing below this level) to quickly head back up – leaving a trader a great buying opportunity in hindsight.



Let us now see how we can utilize the Fibonacci Retracement Levels in a downtrend scenario. The chart below shows the EUR/USD market based on an hourly time scale. The Swing High on 04/13/09 is at 1.3391 while the Swing Low on 04/13/09 is at 1.3146. The retracement levels are at:

- 1.32974 (0.618)
- 1.32685 (0.500)
- 1.32396 (0.382)

You can see below that the market tries to rally off its low of 1.31460 but was unable to sustain any further strength just at the 0.500 (50%) level of 1.32685. Once the price hit this level you can see the cross quickly reverses and moves in a downtrend again. If you had taken a short position at the 0.500 level, you would have accumulated some nice profits as the trend continues downwards thereafter.



Now let's move onto one more example. The chart below depicts a 30 Minute segment for the EUR/USD market. The Swing high on 03/10/09 is 1.28210. The Swing Low, later in the same day on 03/10/09 is 1.26106. Thus the retracement levels are:

- 1.27406 (0.618)
- 1.27158 (0.500)
- 1.26910 (0.382)

With reference to the chart below you can see the market breached the 50% retracement level a few times and was close to the 61.8% level before falling back again giving a trader a few chances to sell and make some money. So the question is, "If you saw this same level come up another time, would you sell it this time?"



Had you done so, you would have incurred some losses but let's examine what occurred and see if we can learn anything.



So we can see here that losses would have happened, but trading isn't about being right which so many people do not understand when they start out. It's about using the tools you have to make money, and keep it. And in this scenario, even if we were wrong we could have set our Stop Loss order at the next Fibonacci number of .618 (or a price of 1.27406) so our downside capital loss would be limited and you would not have had to stomach a loss up to 1.28575 level and beyond.

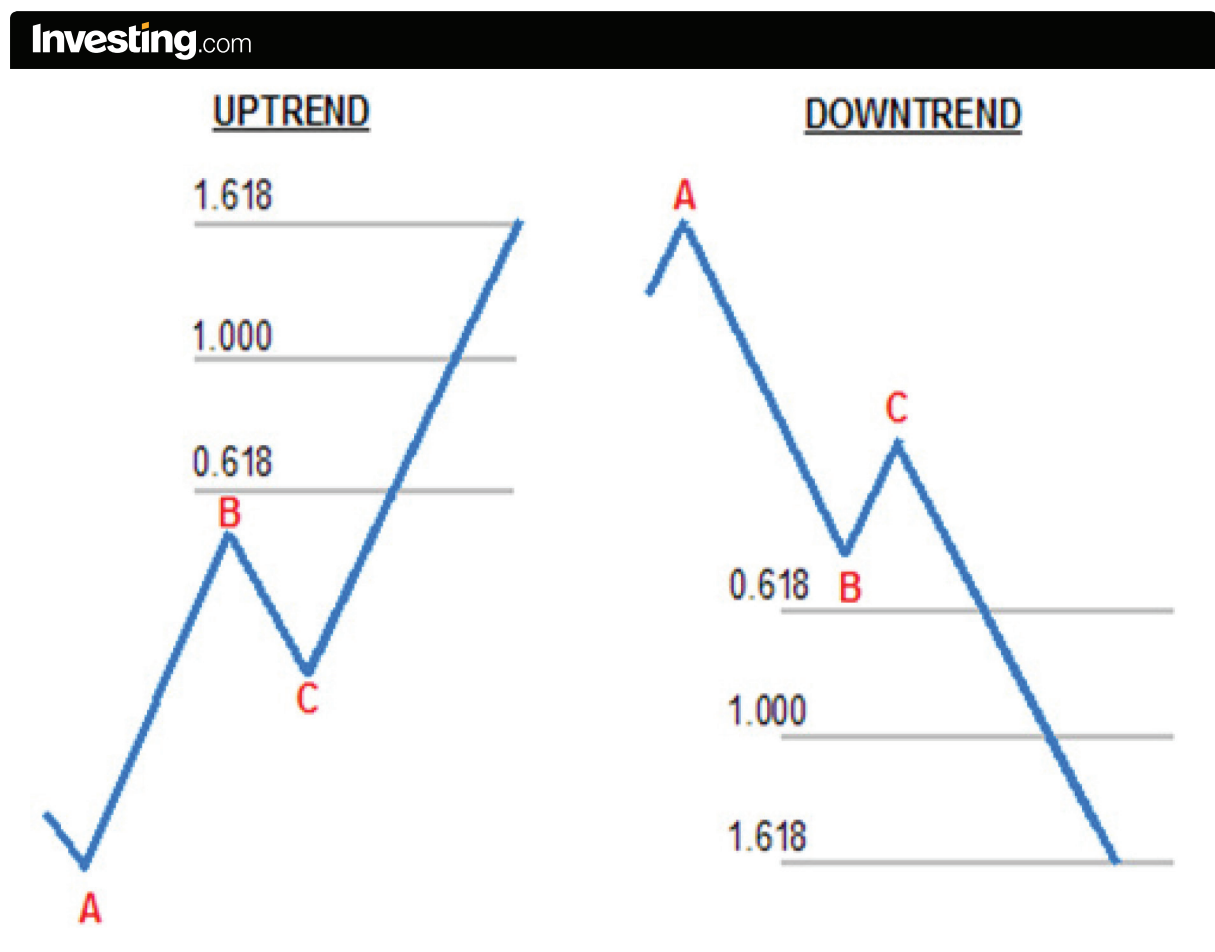
You will also note from these examples and when you look at charts yourself that the market normally finds a temporary foothold at Fibonacci Retracement levels. Remember to use these to your advantage when placing your entry and exit orders.

Fibonacci Extensions

Another use of Fibonacci ratios is to spot possible profit points. Fibonacci Ratios are chiefly used for finding possible resistance and support levels, though traders can also use these ratios to identify where these prices can potentially shift to. The same Fibonacci ratios are applicable in finding Fibonacci targets (or extensions), where the method of using them is approximately the same to that of Fibonacci Retracements.

Drawing Fibonacci Extension Targets

Plotting the Fibonacci extension targets, require 3 swing points. The figure below depicts how the Extension Targets will look like:



With reference to the above diagram, the swing points are obtained from the inverted apex of point A and the zenith at point B. In short, the swing points are established at the “V” shaped troughs of the line graph. Once point C has been established, only then do we have the 3 necessary swing points.

Fibonacci Extension Price Targets

Beginning from Point C

- The initial price target from the figure on the left is 0.618. That target is actually 61.8% of the length between point A & B, starting from point C (which would be a re-test of the previous highs).
- The subsequent price target is 1.000. That target is actually the same length between point A & B, starting from point C.
- The third price target is 1.618. That target is actually the same length between point A & point B, starting from point B.

It is very obvious that prices will keep shifting beyond point A, B and C. Nevertheless, if you wish to use Fibonacci Extensions to isolate price targets, to close out your position (or even enter new ones), then this is the mechanics of how the calculations are arrived. It may sound difficult at first, but it is easily done once you keep seeing the same Fibonacci numbers come up and get use to the easy steps needed to set them up properly, (usually done automatically through your brokers trading software)

Examples of a Fibonacci Extension Target Trade

Here are some actual trade examples just to show you how it looks like in real time trading with Points A, B & C shown, along with the Fibonacci Extensions.

4 Hour EURUSD Chart



4 Hour USDCHF Chart



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Fibonacci Calculator

Uptrend

High (b)
Low (a)
Custom (c)

Retracements	
0% (b)	
23.6%	
38.2%	
50%	
61.8%	
76.4%	
100% (a)	
138.2%	

Extensions	
261.8%	
200%	
161.8%	
138.2%	
100%	
61.8%	
50%	
38.2%	
23.6%	

Downtrend

High (a)
Low (b)
Custom (c)

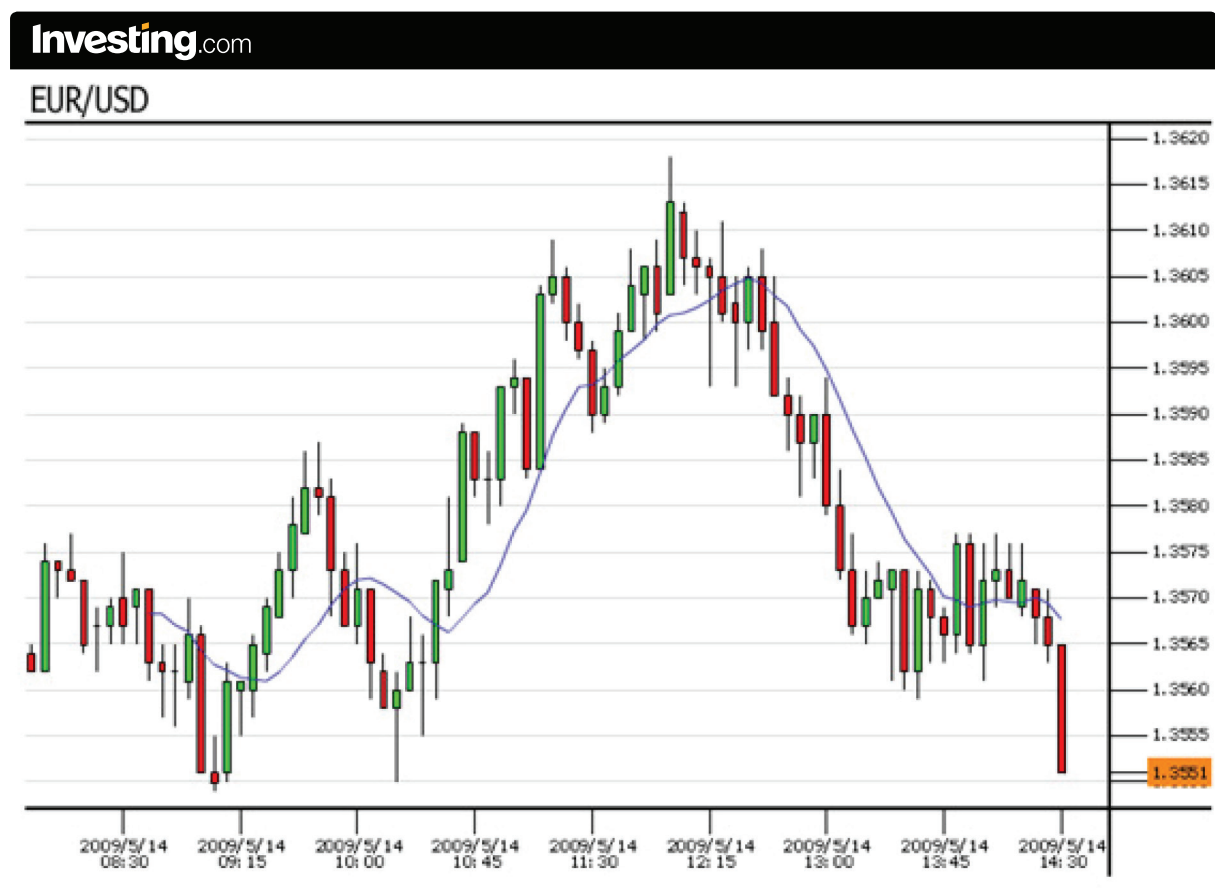
Retracements	
138.2%	
100% (a)	
76.4%	
61.8%	
50%	
38.2%	
23.6%	
0% (b)	

Extensions	
23.6%	
38.2%	
50%	
61.8%	
100%	
138.2%	
161.8%	
200%	
261.8%	

Source: www.investing.com/tools/fibonacci-calculator»

Moving Averages

Moving averages are simply a method to help smooth out price fluctuations plotted on a chart. Like all technical indicators, moving averages serve the same basic function, which is to help us predict the movements of price in the future. By observing the movements and slopes of the moving average, we have another prediction tool in helping us determine what the current trend is, and perhaps where prices are heading. Below you can see a basic moving average represented in Blue.

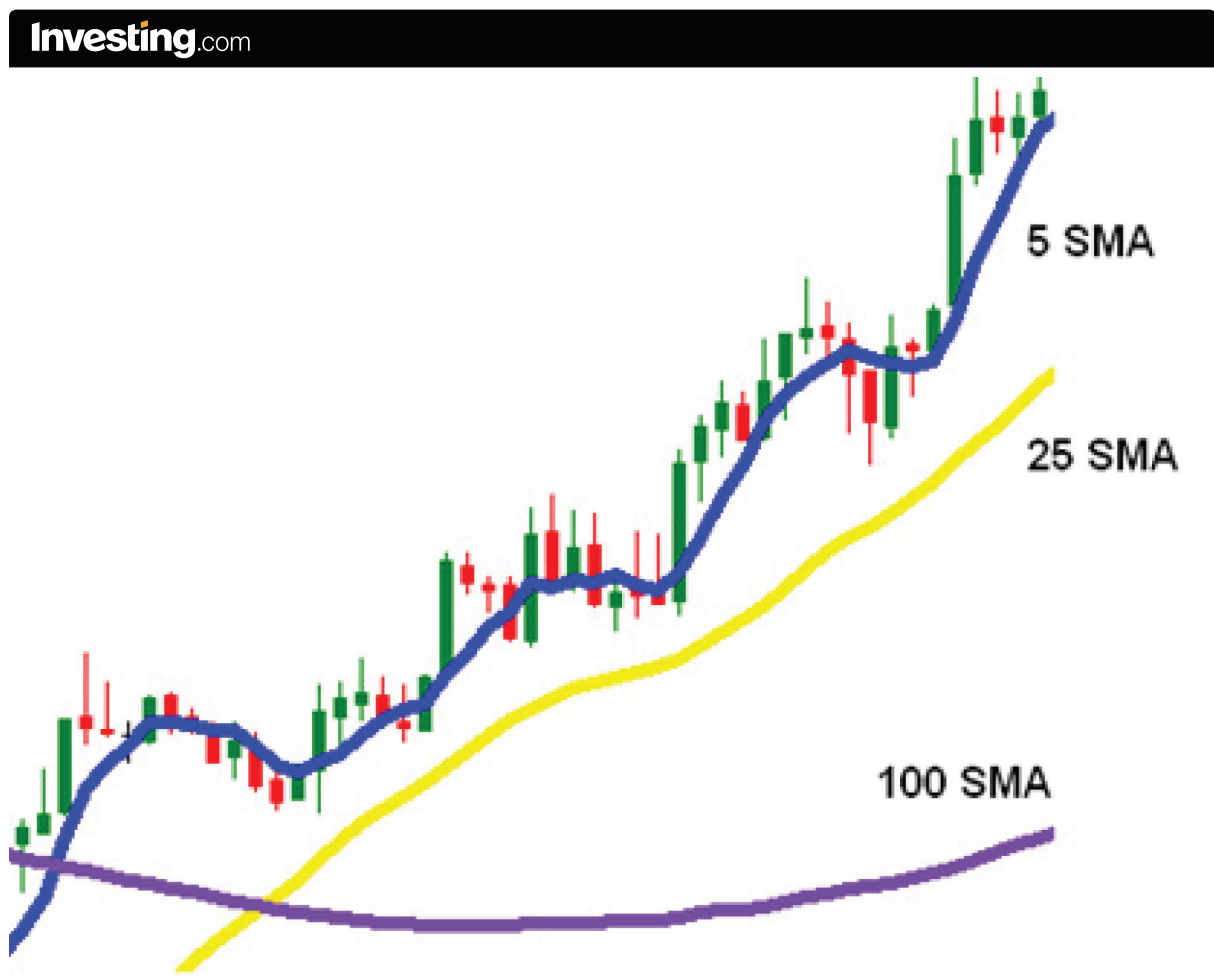


Simple Moving Average (SMA)

In the context of technical analysis, a simple moving average (SMA) is the least complex of all moving averages. A SMA is obtained simply by totaling up “X” daily closing prices and dividing that total by that “X” number.

For example, if you wish to plot a 5 period SMA on a one hour chart, you have to add up the closing prices of last 5 hours and dividing that total by 5. These calculations are done by the charting software which you are using. All you need to do is to understand the principle of how these SMA are arrived at.

Below is an example of how SMAs are displayed.



On the preceding figure, one can view 3 differing SMAs. As one can see, the quantity of price lag depends on the time scale of the SMA. The 100 SMA is furthest away from the plotted current as compared to the 5SMA and 25 SMA. This is due to the fact that the 100 SMA is averaged out over 100 time period.

The longer the time period, the shallower the curve of the SMA is. The SMAs in the above figure shows an overview of the current market sentiment at a specific point in time. The SMAs allow us to have a broader picture of the market as compared to the current price thus we can have an overall prediction of the future price.

Exponential Moving Average (EMA)

As useful as the SMA is as a tool for us to predict the overall sentiment of the market, it has one major defect. SMAs are prone to spikes anomalies. For example, when we plot a 5 period SMA for a EUR/USD daily chart with the closing prices listed below:

- Day 1: 1.3345
- Day 2: 1.3350
- Day 3: 1.3360
- Day 4: 1.3365
- Day 5: 1.3370

The simple moving average would come out to be:

$$\frac{(1.3345+1.3350+1.3360+1.3365+1.3370)}{5} = 1.3358$$

If the price of day 2 is instead 1.3300, the consequence would be that the average becomes substantially lower giving the notion that the price is in a downtrend. In reality, this might be a one off event, perhaps due to decreasing interest rates. At times, SMAs are too straightforward without taking into consideration anomalies.

It is possible to filter out these spikes anomalies with the use of Exponential Moving Average (EMA) so that you have a more realistic picture of the general trend of the market. EMAs give more emphasis to the latter periods. With reference to the above example, this would mean prices of day 3 to day 5 are given more importance. Thus the spike of price in day 2 will have significantly less effect on the moving average. In short, EMAs give more significance to what the market participants are doing NOW. Historical movements might be important for analysis but it is more crucial to know how the market is reacting now than what had happened last week or the previous month.

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Moving Averages						
Forex Indices Stocks Futures Commodities						
Simple Exponential				Hourly ▼		
Name	MA5	MA10	MA20	MA50	MA100	MA200
EUR/USD	1.1743 Sell	1.1738 Buy	1.1737 Buy	1.1720 Buy	1.1740 Buy	1.1751 Sell
GBP/USD	1.3150 Buy	1.3127 Buy	1.3101 Buy	1.3098 Buy	1.3173 Sell	1.3270 Sell
USD/JPY	112.66 Buy	112.64 Buy	112.63 Buy	112.76 Sell	112.75 Sell	112.74 Sell
USD/CHF	0.9789 Buy	0.9785 Buy	0.9784 Buy	0.9788 Buy	0.9764 Buy	0.9744 Buy
AUD/USD	0.7758 Sell	0.7761 Sell	0.7767 Sell	0.7775 Sell	0.7809 Sell	0.7822 Sell
USD/CAD	1.2541 Buy	1.2540 Buy	1.2538 Buy	1.2553 Sell	1.2518 Buy	1.2494 Buy
BTC/USD	4577.2 Buy	4574.9 Buy	4574.6 Buy	4480.3 Buy	4411.4 Buy	4358.5 Buy
US Dollar Index	93.53 Buy	93.57 Sell	93.60 Sell	93.66 Sell	93.52 Buy	93.29 Buy

Source: www.investing.com/technical/moving-averages»

Chart Indicators

There is a wide array of technical indicators, literally hundreds, however a few of them are very popular and can be very helpful in trying to identify momentum changes, over-bought or over-sold markets, reversals, or simply in helping you to determine your risk parameters and order placement.

It should also be mentioned that as many indicators as there are, there are about just as many ways to interpret them. Below we will go over the more common methods; however you are of course encouraged to read up these see how other traders use them to their advantage.

Bollinger Bands

Bollinger Bands usually have a 20 day simple moving average (that can be hidden) surrounded by 2 lines (or bands) that are 1 standard deviation (+1 and -1) from the moving average price. These bands tend to capture most currency price moves within them, though they also clearly show when prices are overbought/sold, when prices touch, or extend through either line.

Bollinger bands are utilized to measure the volatility in a market. Essentially, these bands indicate if the market is quiet or volatile. They contract when the market is quiet and expand when the market is volatile. With reference to the figure below, you can see that the bands are closer to each other when there are less price fluctuations (low volatility) whereas they expand when the prices become more volatile.



NOTE: if you wish to know how to calculate Bollinger Bands, you can visit the website www.bollingerbands.com for more information.

The Bollinger Bounce

The whole concept about Bollinger Bounce is that prices are inclined to move back to the middle between the bands (regression to the mean). By looking at the charts below, you can discern that the price will likely move downwards towards the middle section of the bands. The trick is to figure out when.



With reference to the chart below, prices did indeed move downwards.

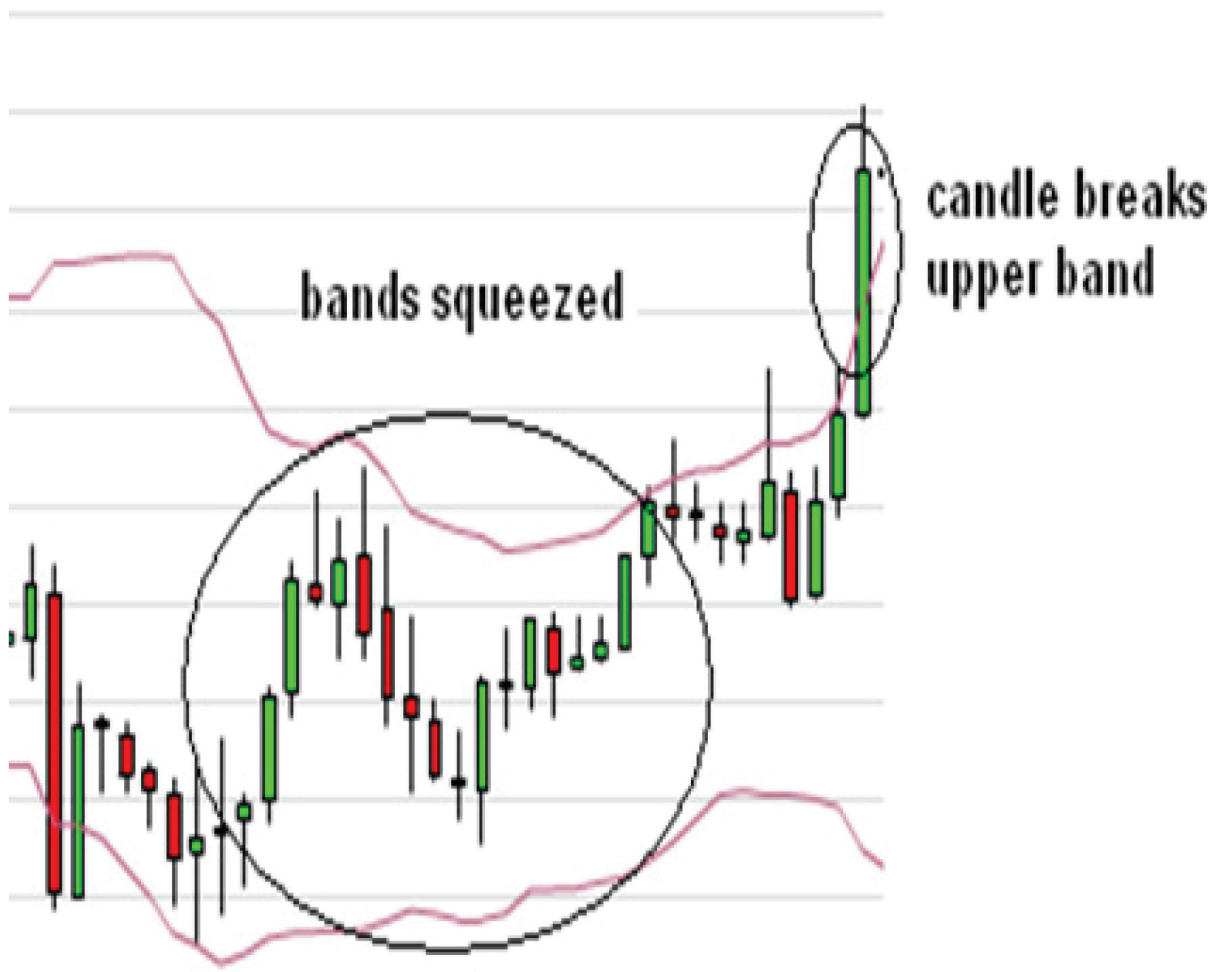
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You have just witnessed a typical Bollinger bounce. This is due to the fact that Bollinger Bands act like mini resistance and support levels. The strength of the bands depends on the time scale used. The longer the time scale, the stronger the bands are. This technical indicator is ideally suited for markets which are ranging and have no obvious trend.

The Bollinger Squeeze

As the name imply, the Bollinger Squeeze refer to the situation where the bands “squeeze” together, again during times of low volatility. This normally suggests that a breach is going to happen soon. During these times, if the prices breach the upper band, normally the prices will continue to move upwards. On the other hand, if prices begin to breach the lower band, it is likely that they will continue downwards.

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On the figure above, you will notice that the bands are squeezing at one point. The price has also begun to breach the upper band. Based on this analysis, it is likely that price will go upwards for a bit and “bounce” back soon after.

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By looking at the subsequent prices, we see that prices did indeed continue to move upwards. This is how a Bollinger Squeeze works. The purpose of the bands is to allow you to spot a potential move as quickly as possible so you can set your entry and exit points accordingly.

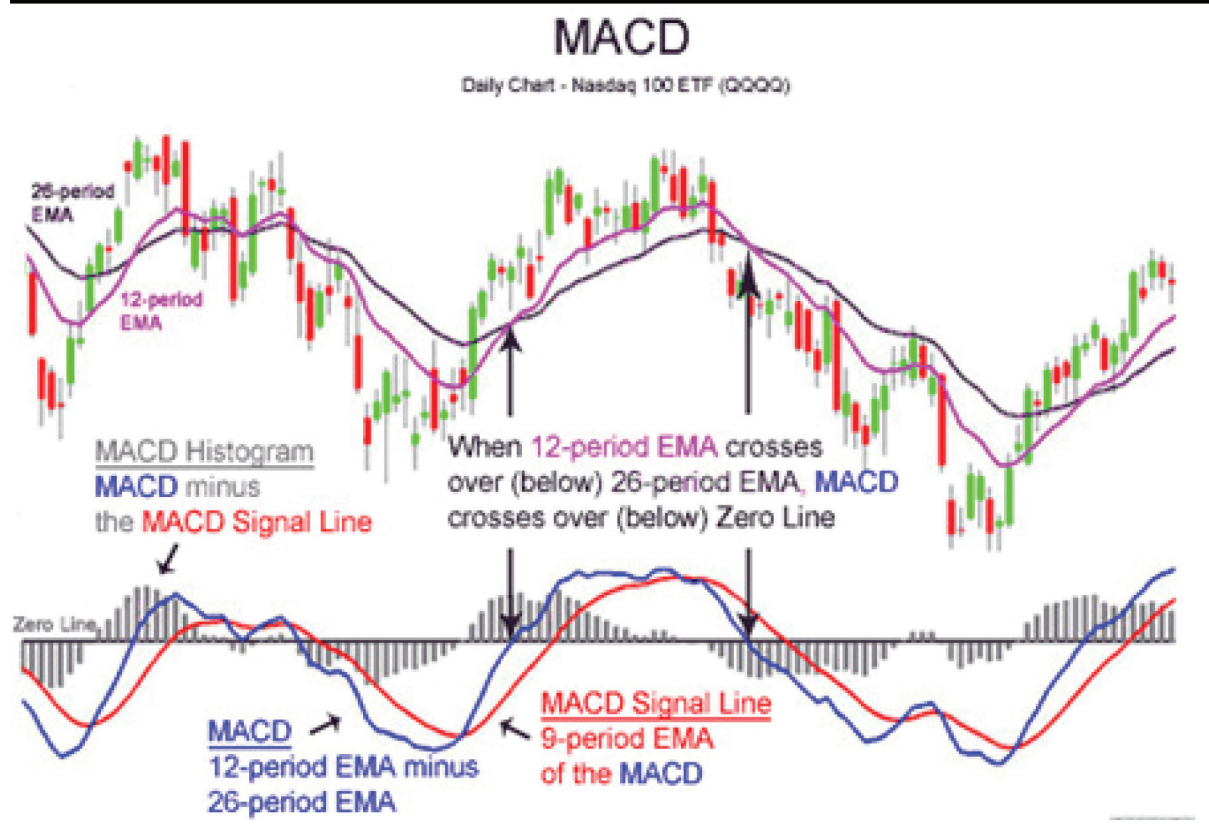
Moving Average Convergence/Divergence (MACD)

The MACD shows the momentum of an asset and is generally made up of different time scaled moving averages (i.e. a 12 period moving average and a 26 period moving average) and a signal line (i.e. 9 period moving average).

The MACD line (shown below in blue) is actually the difference between the fast moving average (12 periods) and the slow moving average (26 periods). The Signal line (shown in red) is actually the (9 period) moving average of the MACD line. So, when the MACD line starts below the signal line and intersects it to be above the signal line then this would denote price momentum continuing on the upside. Of course then, if the MACD line is above the signal line and intersects below it, then the opposite signal is given.

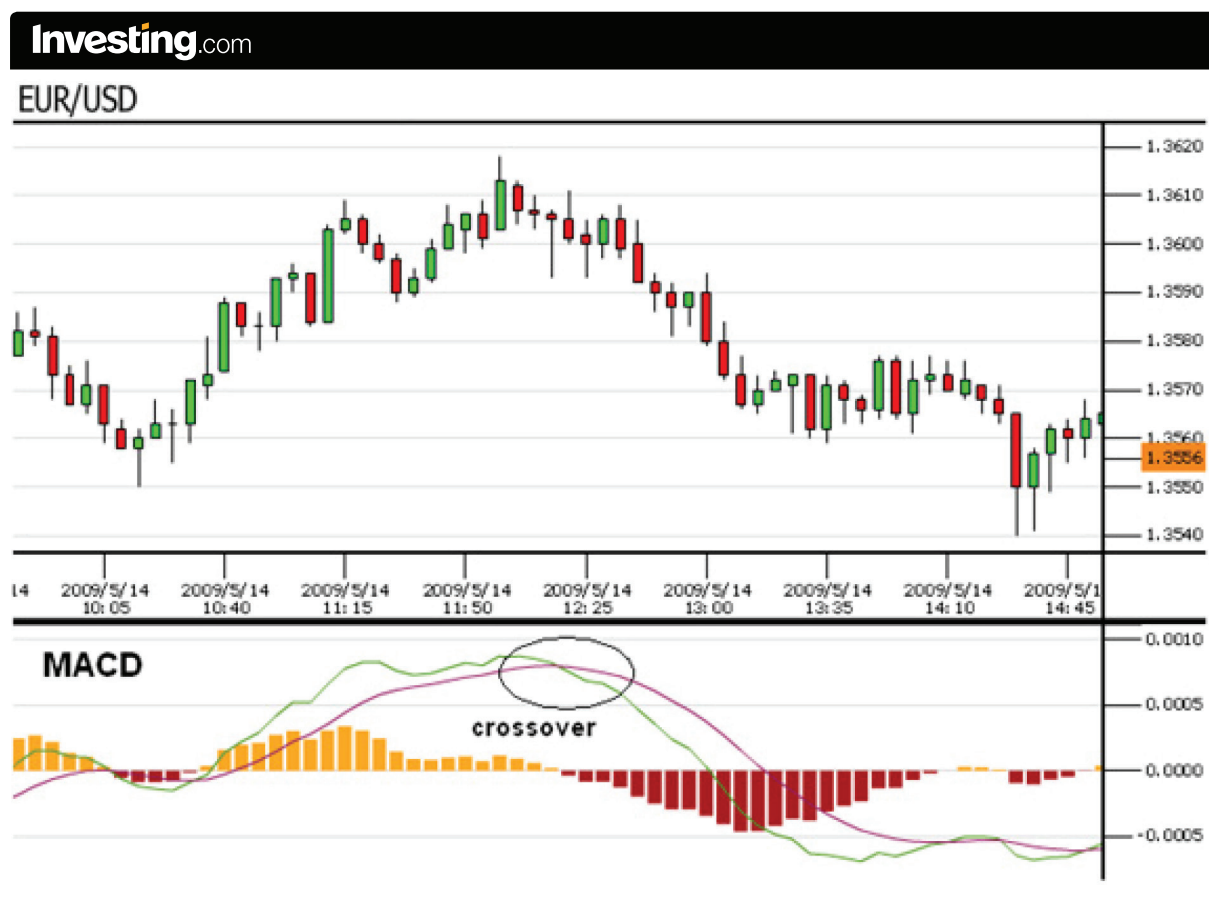
You will also commonly see the actual slow (26 periods in black) and fast (12 periods in purple) moving averages in the charts which can also be used to give signals in the same cross-over fashion. Whereas, the histogram shown is showing the difference between the MACD line and signal line (i.e. if the 2 lines move apart (divergence) the histogram expands, and when the 2 lines come together (convergence) it contracts to the neutral level)

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MACD Crossover

As we have two moving averages with different momentums, obviously the faster moving average will react quicker in response to price fluctuations when compared to the slower moving average. These lines are important as they are used to determine if a new trend has occurred. When the faster line intersects the slower line (A Crossover), it will then start to diverge away from the slower line. Once that has occurred, a new trend is said to have developed.



From the figure above, you will notice that the green line (Fast Line) crossed under the purple line (Slow Line) which clearly shows a new downtrend has formed. At the crossover point, the histogram disappears. This is due to the fact that the difference between both lines is zero – they converged. As the two lines begin to diverge, the histogram will in turn expand. This is indicative of a strong trend.

One caution when using the MACD is to remember that it is an average of OTHER averages so it is built on a lot of old smoothed out data which will lag the current market, so it is not very good at finding entry points, but can be helpful in confirming trends.

Parabolic SAR

So far we have focused on technical indicators for isolating new trends, or confirming established ones. As important as that is, it is equally critical that we are able to when a trend is ending. In short, knowing when to exit the market is as important as entering the market.



One technical indicator that is used for forecasting ending trends is the Parabolic SAR (Stop And Reversal). The Parabolic SAR is points or dots on a chart which show the potential reversal points of a trend. With reference to the above figure, the points shift from being below the candle sticks during an uptrend to above the candlesticks during a downtrend.

The use of Parabolic SAR

The good thing about the Parabolic SAR is that it is an extremely easy tool to use. In essence, when the points are below the candle sticks, this mean a “Buy” signal has occurred, and conversely when the points are above the candlesticks, this mean a “Sell” signal has occurred. As this indicator only has two outcomes, that is, to buy (Uptrend) or sell (Downtrend), it is one of the simplest of all technical tools to utilize for spotting trend reversals.

NOTE: You should not use this tool when the market is volatile and the price fluctuations are moving sideways (in a range) as it will give off a lot of false signals.

Stochastic

Another technical indicator used for determining ending trends is the Stochastic oscillating indicator. It monitors the overbought and oversold conditions of the market. It is similar to the MACD in the sense that it has two lines with one being faster than the other.

Stochastics have a scale between 0 and 100. If the lines reach 70 to 80 or above, it indicates the market is overbought. Conversely, when the lines are at or below 30 to 20 this indicates the market is oversold.



With the reference to the above chart, the stochastics have indicated an overbought condition in the market for a substantial length of period. Based on this observation we can make a reasonable assumption that the direction the market should be heading down soon.



Here we see that the market did indeed move lower after it was overbought for so long.

Relative Strength Index (RSI)

This is an oscillator which was developed by J. Welles Wilder. What the Relative Strength Index (RSI) does is to compare uptrend prices with downtrend prices over a specified period. It also helps to isolate overbought and oversold market conditions. With a scale of 0 to 100, any reading below 20 to 30 indicates an oversold condition while any reading above 70 to 80 indicates an overbought market condition.



Utilizing the RSI

The RSI can be used in a number of ways, however many take note not only of its overbought or oversold reading, but also to help solidify trend confirmation if it crosses the middle line (a 50 reading you can see below). For instance, it is one thing to see if an asset has extended too high or low, but you can also witness if an asset has been in the lower range (below 50) for some time and finally broke above into the higher range (above 50) further confirming an uptrend has been established (and vice-versa).



NOTE: No technical indicator is perfect. As such, they are used in combination with each other to cover any deficiency that each indicator might have.

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Forex Technical Indicators

Forex | Indices | Stocks | Futures | Commodities

Hourly ▼

EUR/USD Time : 12:56:33 GMT

Name	Value	Action
RSI(14)	55.879	Buy
STOCH(9,6)	71.429	Buy
STOCHRSI(14)	48.226	Neutral
MACD(12,26)	0.001	Buy
ADX(14)	35.886	Buy
Williams %R	-28.571	Buy

Name	Value	Action
CCI(14)	75.2180	Buy
ATR(14)	0.0010	Less Volatility
Highs/Lows(14)	0.0000	Neutral
Ultimate Oscillator	55.170	Buy
ROC	0.000	Neutral
Bull/Bear Power(13)	0.0007	Buy

Buy:8 Sell:0 Neutral:3 Indicators Summary: **Strong Buy**

Source: www.investing.com/technical/indicators»

Elliott Wave Theory

In the 1920s to 1930s, Ralph Nelson Elliott discovered that the stock market, although seemingly behaving erratically, actually behaved in a cyclical manner.

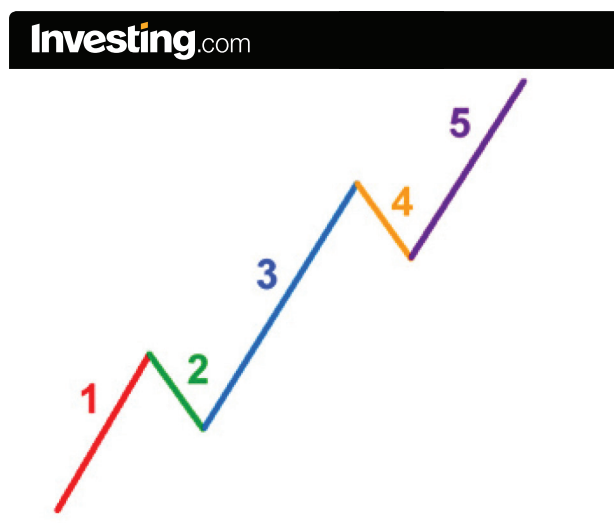
It moves in repetitive cycles reflecting the moods of the investors and traders that were influenced externally. These influences can be a result of news or the predominant psychology of the trading population at during that time.

Elliott reasoned that the upswing and downswing of moods of the trading population always show the same repetitive cycle which he characterized as “waves”. Thus, this theory was known as the “Eliot wave Theory”.

Although, this theory was originally meant for the stock market, the Elliot wave theory has become very popular with Forex swing traders.

The 5-3 Wave Pattern

The Elliot Wave theory explains that a trending market moves in a 5-3 wave pattern. The initial 5 waves are called “Impulse Waves” while the latter 3 waves are called “Corrective Waves”.



With reference to the above diagram:

Wave 1

This wave represents the initial market movement upwards. This is normally a result of a small number of people rushing into the market to buy an asset (due to whatever influences) as they are of the opinion that the stock is cheap and as such an ideal time to purchase.

Wave 2

At this junction, there is some profit taking as those who initially purchase the asset are considering the asset overvalued. The result is the stock goes down. Nevertheless, the stock will not reach its previous lows as it will be regarded as a good buying opportunity again.

Wave 3

Normally, this is the wave with the strongest momentum and longest run. Once the asset has the public's attention they commonly want to be part of the action which results in the price climbing higher and higher and usually exceeding the peak of the first wave.

Wave 4

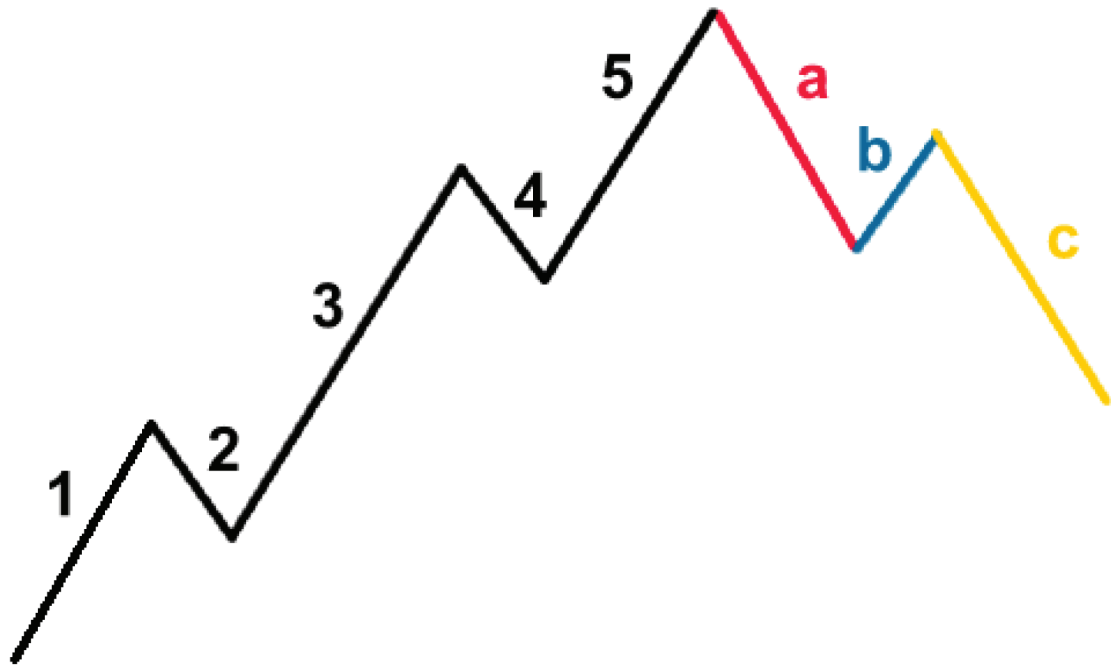
At this stage, people are profit taking again as the asset is regarded as expensive. However, the strength of this wave will be weak as there are many people who are still bullish on the asset. They are just waiting to purchase on the "dip" (trough).

Wave 5

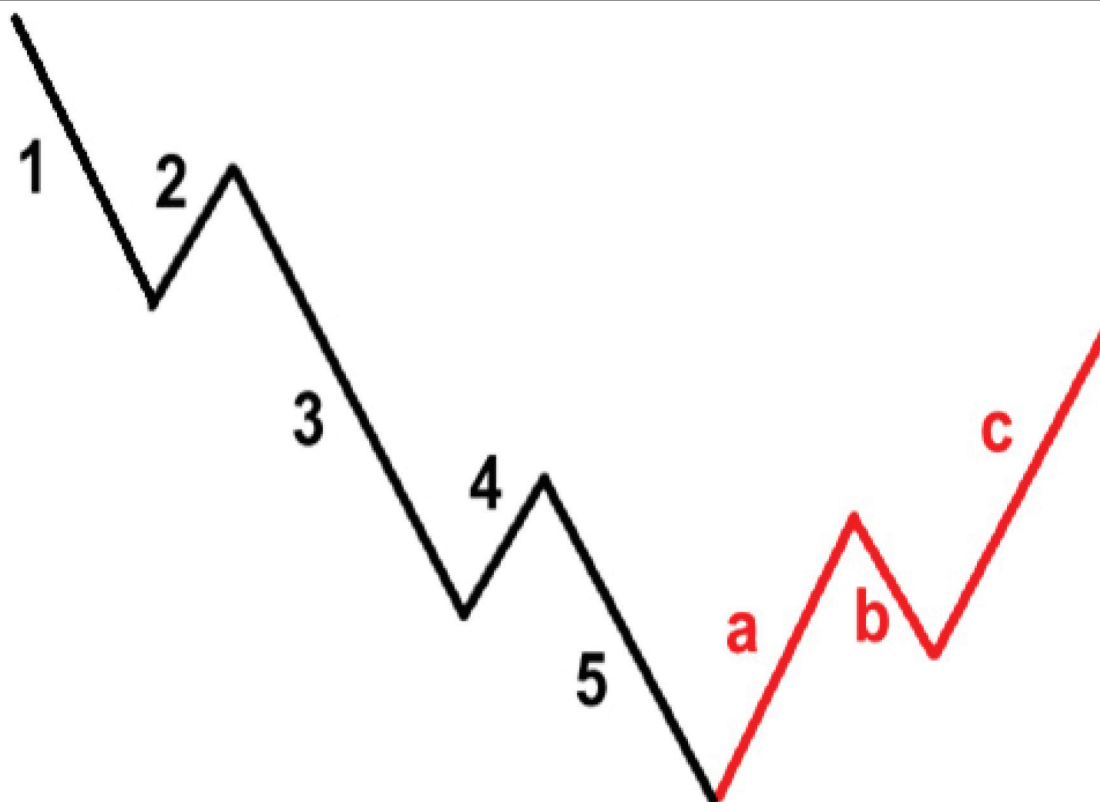
It is during this wave that there is the greatest number of buyers. Wave 5 momentum is mostly driven by hysteria. The buying public commonly begins to manufacture absurd reasons to purchase the asset. It is during this stage that the asset is overbought as there are few buyers to keep prices ascending further.

ABC Correction

These are 3 waves which represent trend reversal correction to the initial 5 waves. Instead of numbers, these waves are denoted by letters.

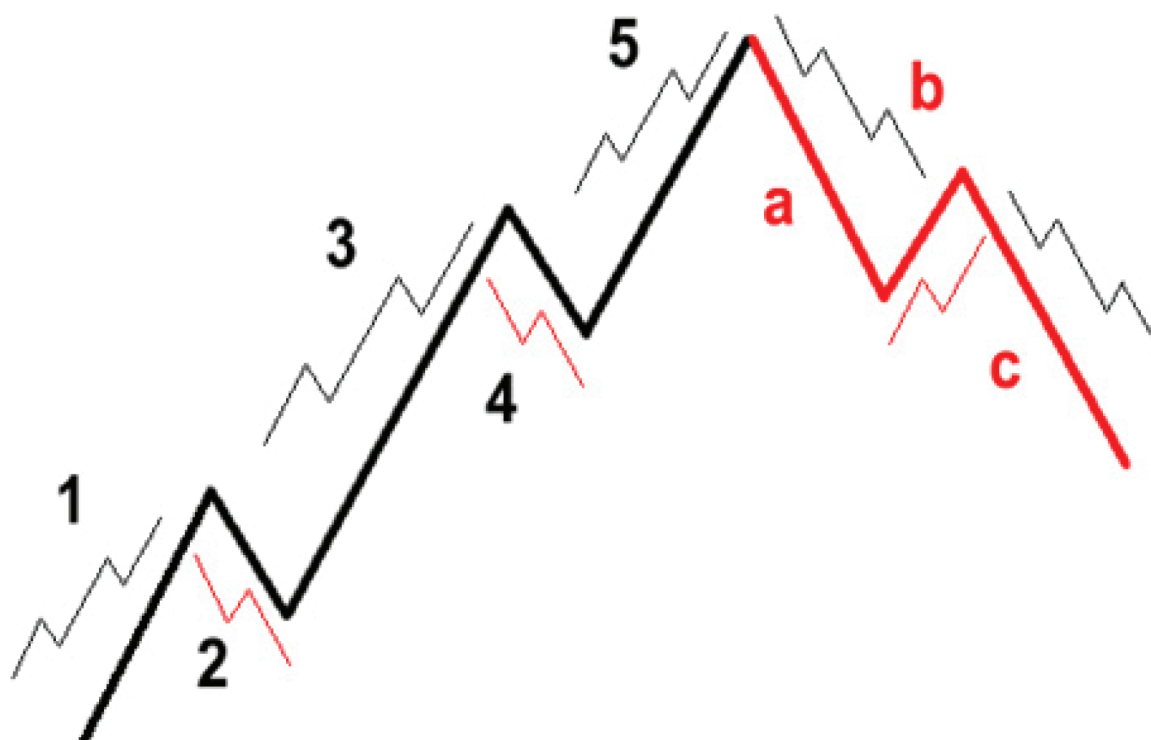
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The Elliot wave theory is good not only for bullish markets; it is also good for bearish markets. The above figure can also look like the figure depicted below.

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Waves within Waves

Another important concept about the Elliot wave theory is “sub waves”.

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If you refer to the figure above, you will observe that Wave 1 is comprised of the 5 smaller impulse waves. Wave 2 on the other hand is made up of the 3 smaller correction waves. Each wave is actually made up of smaller 5-3 pattern as well.



Using the EUR/USD 06/2007 to 07/2008 daily chart above, you can observe, the 5-3 wave pattern. Though it isn't as clean as what we started with, once you gain more experience with them you will begin decipher them easily.

The main thing about how to decipher the patterns correctly is to find the right point to start off. Once you are able to spot and identify these waves correctly you will be able to see their practical application in every aspect of Forex trading. These patterns can also be very helpful in helping you decide when to enter or exit the market.

Pivot Points

One of the most useful tools of a Forex trader's arsenal of tools is the Pivot Point calculator. This is one of the most frequently used triggers for trading strategies.

In short, Pivot points are points where the market is expected to reverse. If the market is in a downswing, the pivot point is the junction or value where the market will reverse itself and begin an upswing. Likewise if the market is in an upswing, the pivot point is the junction or value at which the market begins to turn and start a downswing. the ability to forecast major turning point in the market is an important skill as you will be able to decide your entry or exit point to and from the market.

Pivot points are used as a very popular technique for crafting a trading strategy. It was initially adopted by stock market floor traders as it allowed them to determine what direction the market is heading with just a few pieces of information and minimal computation. with just the High, Low, opening and closing prices of the previous day trading, one can compute a "point" when the market will change direction. they are also helpful in predicting where the market will go and, when used in conjunction with support and resistance levels, you will be able to estimate how far the trend may go.

There are several ways to arrive at a daily pivot point, though the simplest way is to use the average of the previous day's high price, low price and closing price, then divide by 3.

Pivot Point

(Previous day High + Previous day Low + Previous day closing) ÷ 3

Resistance

(2 X Pivot) – Low

Support

(2 X Pivot) – High

Example: if the prices of the UsD/EUR on Feb 3, 2006 are:

Closing 0.8357 High: 0.8418 Low: 0.8316

Then, the values of the pivot points for Feb 4, 2006 are:

Pivot = 0.8364 Resistance = 0.8412 support = 0.8310

NOTE: A market opening price above the pivot point implies a long (buy) trading strategy, likewise a market opening price below the pivot point implies a short (sell) trading strategy.

Pivot Breakout Trade

Since traders could already have calculated the pivot, support and resistance levels from the previous day's information, they could set up entry orders on either side of the support or resistance levels ahead of time in case a breakout occurs.

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Pivot Point Calculator

High:

1.35

Low:

1.31

Close:

1.33

Open:

1.315

→

Calculate

	Classic	Woodie's	Camarilla	DeMark's
Resistance 4			1.352	
Resistance 3	1.39		1.341	
Resistance 2	1.37	1.37	1.3373	
Resistance 1	1.35	1.35	1.3337	1.36
Pivot Point	1.33	1.33		
Support 1	1.31	1.31	1.3263	1.32
Support 2	1.29	1.29	1.3227	
Support 3	1.27		1.319	
Support 4			1.308	

Source: www.investing.com/tools/pivot-point-calculator»

Chart Time Frames

With charting time frames down to 1 minute or 5 minutes; to 1 hour, 2, or 4 hours; and onward to weekly and even monthly charts, there are a lot of choices for a trader to choose from. selecting which one is right for you is essential in helping you get comfortable in building your trading plan. so let's start with the breakdown of the different time frames and see what they can offer.

Long Term / Position Trader

Traders here normally revert to Daily and Weekly charts. The Weekly charts will ascertain the longer term outlook and overall trend, while the Daily chart will help in placing specific entry orders. Trades using these charts are typically from weeks to months, and sometimes years.

Advantages

- Need not monitor the market constantly.
- Less transactional cost as there are fewer trades.

Disadvantages

- Requires large stops, or very large risk capital to withstand large potential draw-downs.
- Requires immense patience as good trades come around only a few times per year.

Short Term / Swing Trader

Traders here use the hourly time frames and trade for several hours to a few weeks.

Advantages

- Have more opportunities to trade when compared to longer time frames.
- Suits most traders as it is a good compromise between very long term trading where you may be “disconnected” from market movements, and very short term trading where you may be “obsessed” with market movement.

Disadvantages

- Transactional costs are higher when compared to long term trading.
- The overnight risk also becomes a factor on this time frame.

Intraday / Day Trader

Traders here really trade in short time frames as they refer to minute and hourly charts. They also normally trade the whole business day and exit the market before the market close.

Advantages

- There are lots of trading opportunities
- There is no overnight holding risk

Disadvantages

- High transactional costs as there are far more trades when compared to other time frames.
- Mentally stressful due to the shorter time frames

NOTE: in making your decision on which timeframes suite you the best, you need to also take into consideration the amount of risk capital that is available to you for you to trade as usually longer time frames require much more risk capital than smaller time frames.

Time Frame Chart Examples

Here you will be able to see just how different price action looks based on what time frame you are looking at it.

If you observe currency pairs on different time frames, you will see that the markets are able to swing in different direction simultaneously. For instance, moving averages on a Weekly chart may be rising generating a “buy” signal, while at the same time on a Daily chart, falling, generating a “sell” signal. Furthermore, one trader may say they are Long EUR/USD based on Daily charts, but you could be Short EUR/USD based on your Hourly charts. Both of you can be correct!

Now, this isn't here to confuse you, rather to show you that framing something in different ways can change your perception of it. It also can be a VERY good way in determining if you are not aware of a larger (longer period time frame) overriding trend that can affect your trading decisions.

5 Minutes Chart Example:

With reference to the EUR/USD 5 minutes chart shown below, the currency pair was trading above the 100 SMA indicating that the market was bullish.



60 Minutes Chart Example:

Looking at the same EUR/USD currency pair as shown in the 5 min chart, you can see the longer term trend was actually bearish and prices continued to sell off.



4 Hours Chart Example:

Still looking at the same EUR/USD pair on an even longer term charts we can see that there is actually a bullish move underway and we may just be in a pull back.



Daily Chart Example:

Finally, while looking at an even large time frame we notice that we were wrong again and in fact this is actually a very long term bearish move and pricing continues to fall.



As we can see all the charts show the same scenario but with different time frames and even conflicting signals. This is simply here to show you again how important framing is, and that any good trader should always look at least at the next higher (longer term) significant time frame before making a trading decision.

Here is a Time Frame Chart Guide to help you

Type of Trader	Normal Charts Used	Longer View Chart
Intraday / Day Trader	1 Minute to 1 Hour	2 Hour to 4 Hour
Short Term / Swing Trader	1 Hour to 4 Hour	Daily
Long Term / Position Trader	4 Hour to Daily	Weekly to Monthly