FOREX

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Contents

INTRODUCTION

Huge crowds converge on the markets every day. The crowd consists of buyers, sellers and undecided traders. It is this crowd that moves the price and has the power to create trends; each price printed is the momentary consensus of the crowd at the moment of the transaction. As a trader you are trying to predict the future mood of the crowd to decide where to get in and where to get out of the market in order to make a profit.

One of the methods that can be applied to make these decisions is technical analysis, which is the use of charts and indicators to study the behaviour of market crowds. Every price pattern formed on a chart is illustrating the market crowds' behaviour and technical analysis takes a mathematical interpretation of history to predict what may happen in the future. The commonly used phrase "history repeating itself" fits in well here.

This guide will take you from the basics of technical analysis through to some more complicated, yet easy to apply, strategies. It is important to remember that having a trading strategy is just one third of becoming a successful trader; you also need a solid risk management plan and the discipline to stick to your rules. Another important note is that all traders differ and you need to find the strategy that works for you which may take some testing, monitoring and patience.

The benefits of using technical analysis is that it can eliminate emotions, such as greed and fear, from your trading and many traders find it is easier to stick to a set of rules because it helps you to take a more pragmatic view.

Charts: line, bar and candle

A line chart is the simplest of the three most commonly used charts. It sets out each price at a certain time and links these points with a line. You can select various timeframes, for example, a one minute line chart will have a price point at every minute, while a one day chart will have a price point for each day. The price at this point is normally the closing price of that minute, hour or day depending on the chosen time period.

Whilst a line chart reveals highs, lows and trends, a bar chart can also give you the high, low, open and close for every time period of the selected chart. For example, on a one-hour bar chart there is a bar for each hour of price movement. In this case, the range of the bar is the distance between the high and low of that hour. The open price of that hour is indicated by a small horizontal branch on the left side, and the close price by a branch to the right. The bars also provide the trader with other information, such as the volatility of price in that hour.

Figure 1: Bar chart

A candlestick is similar to a bar chart, but the two horizontal branches are used to form a 'body' and are coloured differently depending on whether the bar closed higher or lower than the opening price. In the image below the candles closing higher are white whilst the candles closing lower are black and the candles that appear as a green cross closed at the same price as the open.

Figure 2: Candlestick chart

The length of the candle remains as the distance between the high and low but these will now appear as 'tails' coming from the top and bottom of the body. Hence, with a candlestick chart you can easily see the volatility and the price direction of each time period.
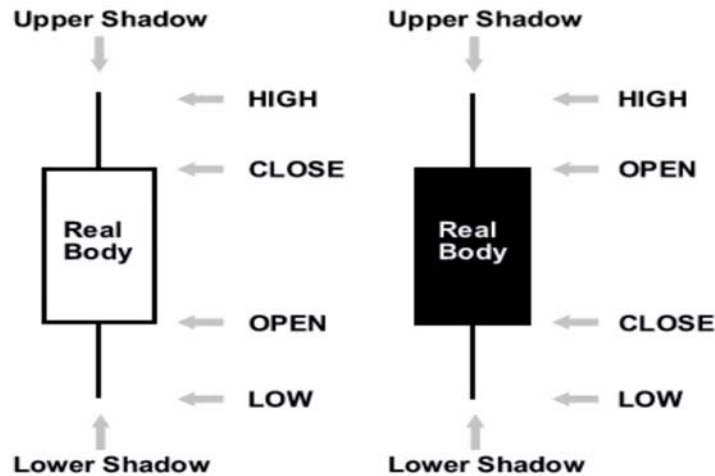
Figure 3: Candlestick elements

Analysing candlestick patterns is a popular trade indicator. For example, a candle that looks like a hammer with a very short body towards one end of the length can signal a price reversal. This shows that the open and close prices are close together, and at times of volatility this implies that the market crowd is not united as to whether the trend will continue in the same direction. The candle signalling a turn is called a hammer or a doji; in figure 2 the green crosses are doji's. There are numerous other studies of patterns that can be applied to a candlestick chart.

Critical price levels

Resistance, support and pivot points

Imagine throwing a tennis ball on the floor really hard. It bounces and then hits the ceiling before coming back to the floor and bouncing again. This is how support and resistance appear on a chart; the price is the ball, the support is the floor and the resistance is the ceiling.

Support levels represent 'floors' – areas where buying tends to be strong. If the price falls to a strong support, then sellers in the market are less keen to sell at a cheaper price and buyers are happy to buy at that attractively low level – this drives the price up, or at least stops it from falling any lower. By knowing the support levels, you can identify good buying opportunities, because that's where buyers are supposed to be strong and push the price up. However, if the price falls below a support level, this is also a trade signal. It shows that sellers are still stronger than buyers, and may prompt buyers to close their trades and more traders to sell even more of the traded security. Resistance levels represent the 'ceilings' – area where selling tends to be strong and can be a good selling opportunity.

Definitions

A **support** is a level or area that acts as a barrier stopping the price from moving lower. This is because at this level buying interest is strong enough to reverse the downtrend, The support can be drawn as a horizontal line connecting two or more bottoms.

Figure 4: Support zone 1.0157 – 1.0187 on a AUD/USD day candlestick chart

A **resistance** is a level or area that acts as a barrier stopping the price from moving higher. This is because at this level selling interest is strong enough to reverse the uptrend, The resistance can be drawn as a horizontal line connecting two or more tops.

You can find and draw levels onto the chart with the horizontal line tool. Also, the easy-forex Trading Central signals in the Research & Analysis section provides trading levels.

Trader tips:

- It is best to draw the level across the edges of the congested areas instead of the extreme prices.
- Levels can vary in strength, a minor support or resistance causes a trend to pause whilst a major level causes a reversal. Traders look to buy at major supports and sell at major resistance levels.
- Levels can be found across all timeframes. It is good practice to look at various times, daily, 4 hour, 1 hour, 30 mins, 15 mins. It is important to note that support and resistance levels are more important on longer-term charts.
- Strength of the zone can also be measured by its length; a zone that has been tested many times without breaking is strong, however as it grows old it will become weaker.

Reasoning

Support and resistance levels exist because the market remembers. For example, let's say the price reaches a high before rapidly falling lower and the next day it returns to that high. At this second test of the high, sellers in the market will be very happy to sell knowing they're getting a good price whilst the buyers may become reluctant to buy because they remember what happened the previous day and they want to hang on for a lower price. The combination of happy sellers and reluctant buyers forces the price lower as buyers become saturated.

A breakout will occur when there is a good reason for the market crowd to ignore the level. For example, if important fundamental news suggests a currency's valuation should change drastically. The price may move very quickly during a breakout since it is common for traders to place stop loss orders on the other side of the level to

manage their risk. If thousands of orders are triggered at the same time this will give the price momentum in one direction. For daily interbank knowledge about where stop loss orders are resting in the market, use the easy-forex Market News International (MNI) live feed as a source in the Research & Analysis section.

Trader tips:

- If you are riding a trend and it approaches a support or resistance level, tighten your stop loss. This will protect you from getting hurt if the market reverses. If it passes through the level then it means the trend is strong and your stop loss won't be touched.

- You can place stop loss and take profit orders around support and resistance zones either by following a price reversal or a breakout. For example, if you buy at a support, place your stop loss below that level giving space for an uptrend. Looking at the alternative scenario, if you buy after a breakout through a resistance level you could place a stop loss in the middle of the congested area. If it's a true breakout then the price will continue in the same direction and your stop loss will not get hit.

Pivot points

Pivot points have the same characteristic as support and resistance levels in that they act as a barrier to the price, but they can exist as either a floor or a ceiling. For example, if a level is acting as a resistance and it gets broken it can turn into a support, and vice-versa.

Figure 6: Pivot point at 0.7949 on a EUR/GBP daily candlestick chart

Fibonacci retracements

Fibonacci was a famous Italian mathematician who discovered a number sequence which appears everywhere in nature, from the spirals on a seashell to the bands on a pineapple. Each number in the sequence is the sum of the previous two numbers.

Fibonacci numbers: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...

The ratios of this sequence also hold importance in nature; after the first few numbers in the sequence the ratio of any number to the succeeding higher number is 0.168, for example 21 divided by 34, and the ratio between alternate numbers is 0.382. These ratios are called the 'golden mean'.

Some technical analysts believe that these ratios can be applied to the trading world on the basis that the price pattern follows a natural sequence. Now you don't have to calculate these yourself because the Fibonacci retracement tool on your chart will do this for you. In the timeframe you are analysing, if the price has moved up, click and drag your mouse from the lowest to highest point, then release. The tool will place levels at the golden ratios and these can be used as a guide to a possible barrier to price moves (similar to support and resistance levels).

Even if you think that applying nature's number sequence to the markets is complete nonsense, the very fact that many traders use Fibonacci retracements as a trading tool means that this contributes to the market crowd's consensus and influences price movement.
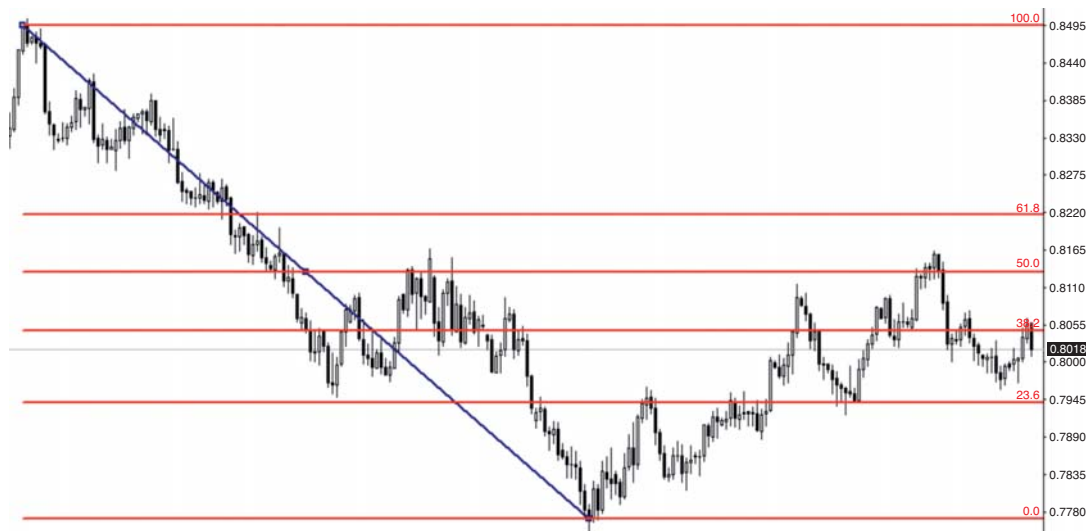

Figure 7: Fibonacci retracements added to a EURGBP daily chart by dragging the diagonal line from the high to the low.

Relative Strength Index (RSI)

The relative strength index (RSI) falls into the category of oscillator indicators which are used to identify turning points. The mathematical formula essentially calculates what percentage of the last 'x' candlesticks or bars have been moving up and this data appears as a wiggly line moving between 0-100%. In other words it measures the strength of price movements indicating overbought and oversold levels.

A basic RSI method that could be used as a trade confirmation is to mark on reference lines 30 and 70. If the price moves below 30 it implies the price is oversold and is a buy signal, and if the price moves above 70 it implies the price is overbought and is a sell signal. When using this strategy it is best to wait for the price to re-emerge from the oversold or overbought zone before entering. Some technical analysts use more extreme references such as 20 and 80. However, using set 30/70 or 20/80 reference lines is not a solid method and it may be better to decipher the reference lines based on previous moves of the RSI line, in the same way that you would look for a support or resistance level on a price chart. For example, in the below image (figure 8) the RSI corresponds to a GBPUSD price chart. An oversold reference line has been marked at 38 by joining two lows of the RSI, extending this line gave a guide of possible buy opportunities in the future.

Figure 8: The RSI indicator below a GBPUSD 15 min candle chart. The oversold reference line has been marked at 38. The red lines on the price chart are turning points and correspond to when the RSI is at the reference line.

As mentioned using 30/70 or 20/80 as reference lines is not always a solid method on its own as the price can continue in the same direction despite moving into an oversold or overbought zone and it may be difficult to decipher where to get in.

Another strategy that can be applied using the RSI is the bullish and bearish divergence. This method analyses the highs and lows of the RSI chart and with the highs and lows on the price chart. When there is a divergence (or difference) in pattern between the RSI and the price then that is the time to act.

Bullish divergence occurs when the price falls to the low or a new low but the RSI makes a shallower bottom than during the previous decline. The signal is to buy as soon as the RSI turns up from its second bottom, placing a protective stop below the latest minor price low.
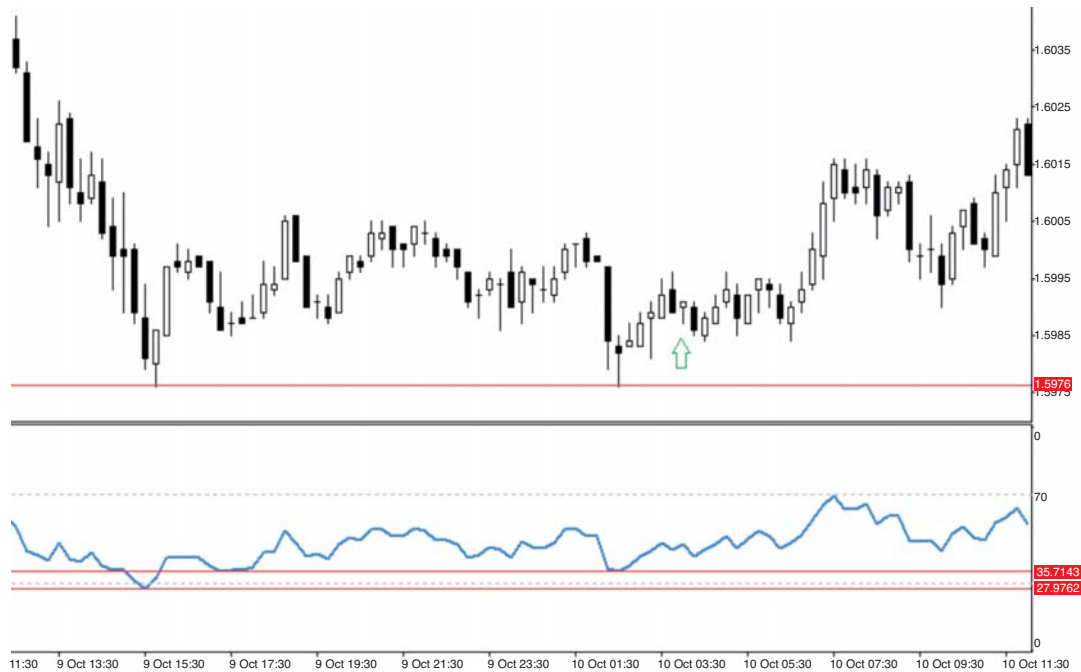
Figure 9: Bullish divergence example. The price returns to its low at 1.5976 but the RSI makes a shallower bottom at 35.71 compared with the first 27.97.

Bearish divergence occurs when the price rallies to the high or a new high but the RSI makes a lower top than during the previous rally. The signal is to sell as soon as the RSI turns down from its second top, placing a protective stop above the latest minor price high.
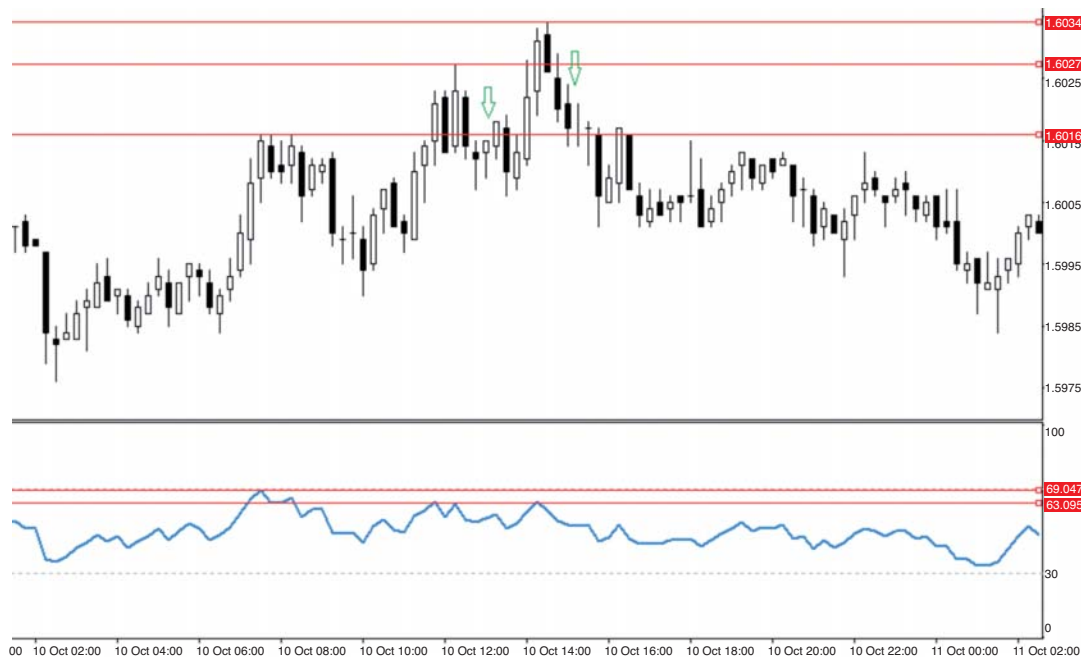

Figure 10. Bearish divergence example. The price is making new highs at 1.6027 and then 1.6034 but the RSI makes a lower top at 63.09 from 69.04.

And finally, the RSI can be used in conjunction with the bullish/bearish divergence and reference lines to confirm a trend. You can place a trend line on the RSI chart in the same way you would on a price chart. If the RSI breaks the trend line it may be one of your confirmations that the price is changing trend direction.

Figure 11. Uptrend and downtrend lines drawn on to the RSI indicator by joining two lows or two highs respectively, projecting these lines into the future can be used as a confirmation of trend strength or indication of change in direction.

The Average True Range (ATR)

Currencies and commodities tend to be more volatile than stocks, this means measuring volatility is particularly important in order to help you identify risk and profit potential. Volatility is specific to each product, be that a specific currency or commodity, and analysts base their volatility forecasts on previous movements over specific time periods.

Knowing how much volatility to expect can help you better calculate your stop loss level and, at the same time, you can estimate a realistic profit target by placing your take profit appropriately. For example, when trading in an uptrend, it is not common for the price to move straight up; instead a trend normally moves in a zigzag fashion making it near impossible to get in at exactly the optimal moment.

It is common to wear some loss before the trend goes your way into a profit. But the question is how much loss will you take before getting out? In a trend trade, placing the stop loss too close can be dangerous because the volatility will take you out every time.

J Welles Wilder, best known for his commodity technical trading systems, developed the Average True Range (ATR) indicator as a tool for a more precise calculation of market volatility, and which is now available on most charting packages. The True Range (TR) measures the movement of a price bar and the ATR is a moving average of the TR values over a period of time which you, the trader, can set.

If, for example, you added the ATR on to a one hour bar chart and set the period to 24, the indicator would calculate the average volatility of each bar over the last 24 hours. A currency pair with a higher ATR reading implies higher market volatility and hence you should look to place a wider stop loss.

If you compare the ATR value of EURGBP with EURJPY under the same parameters, you will find that the JPY cross tends to shift more. Furthermore, the ATR for crude oil reveals just how volatile this slippery commodity is, easily moving 50 points in an hour.

There are various methods for using this indicator; Wilder used daily charts with seven or 14 day periods, which gives the daily average price movement over the previous week or two weeks respectively. There are also methods which suggest setting stop losses two to four times the ATR. However, if you are a day trader and are looking for short-term trades with smaller risks you can amend the parameters to suit your strategy.

Moving Averages (MAs)

A simple moving average (SMA) is a straight forward average of the last 'x' prices. For example, a 10-day moving average (MA) would show you the average price of the last 10 days from any point. Over a long period of time you get many MA values for every 10 days and, when you connect these values, a wiggly line is created. An exponential moving average (EMA) is more complex but a better one to use since it puts more weight on the current prices. If the price is moving up over time so will the MA.

GBPUSD, Daily 1.5898 1.5923 1.5887 1.5912

Figure 12. 10-day EMA on a GBPUSD daily chart.

Technical analysts may use an MA as a trend confirmation but they can also be used in the same way as support and resistance levels and trend lines, where a break can indicate the momentum behind the move is strong and the price may continue moving in that direction. This tends to hold more significance on longer time period charts.

The Alligator Signal

The ATR does not provide an indication of direction, just volatility, which is why you may consider combining this with another indicator that does provide buy/sell signals. The Alligator Signal is one that works best in trending markets. It uses three exponential moving averages (EMAs); five period, eight period and a 13 period EMA. These are usually coloured green, red and blue respectively. When the price rockets you will see the five period EMA (green line) react the quickest. This is because the current price has a larger bearing on the shortest EMA and hence we call this the 'fast line', whilst the 13 period EMA (blue line) is referred to as the 'slow line'. These lines move around each other. When the lines diverge or separate the price is normally pushing strongly in one direction and the further the separation between lines, the stronger the trend. When the lines become tangled and remain close, the price is normally trading sideways and unfortunately we don't get clear signals. However, in a trending environment a signal to buy is looking to follow the start of an uptrend. This is when the fast EMA (green line) moves above the middle EMA (red line) and then above the slow EMA (blue line). If the green line continues to move up above the other two lines it shows that the trend is still pushing in that direction. The lines will be in the order green line at the top, red line in the middle and blue line underneath.

In the chart below (Figure 13) showing the alligator indicator on October 24 the green line is shown to move to the topside of the red and then the blue, confirming an uptrend where the price continued to move up by approximately 130 pips. The opposite is true when identifying a downtrend; when the green line moves from above to below the other two EMAs that is your signal to sell, looking for the lines to move further apart after they have crossed.

Figure 13. Alligator signal on a GBPUSD 1 hour chart indicating the beginnings of new trends.

Since this strategy indicates when to follow a trend it could be used in accordance with resistance and support levels where a trend may be challenged. And when deciding where to place your stop loss and take profit orders, you may want to use the ATR indicator in the timeframe you are studying. This will reveal the minimum distance you should place your stop loss to decrease the risk of getting stopped out in the case of the price whipping back and forth in the trend. It will also give you an idea of how much the price could potentially move in your direction and hence a sensible level to place your first profit target.

Don't forget this indicator works best in a trending environment so take some time to choose the timeframe and currency pair correctly. A larger timeframe or more volatile pair will require a wider stop loss. And, as a last note, remember to always calculate your risk reward ratio before you enter the trade.

Conclusion

We hope this guide has given you the start you need to understand how to use technical analysis in your trading. We strongly believe that in order to use an indicator you must know the theory behind it and there is no use in just following a set of rules you have learnt at a lecture or found online unless you understand them.

As mentioned at the start of this guide, finding a trading strategy that works for you is a personal objective; every trader has a different investment size, available time and, most importantly, perception. Also, you cannot use one indicator for all environments; some work best in a trending environment whilst others work best at detecting turning points. To find what works for you is a matter of testing and monitoring. First you must write down the rules you plan to follow and then keep a diary for every trade you execute, noting the entry price and time, stop loss and take profit levels, the reason for entering, the closing price and time, the reason for closing, and the profit or loss of the closed trade. As well as helping you remain disciplined, over time, this diary will show you what is working and the areas you need to improve.

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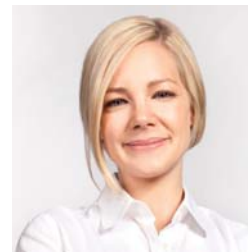
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