

# TECHNICALLY SPEAKING GUIDE



**RFX**  
A C A D € M ¥



*"This will make you want to learn a skill that will give you an edge, no matter what industry you're in." - Worldwide Digital*

## CHARTS

### What is Technical Analysis?

Technical Analysis can be defined as an art and science of forecasting future prices based on an examination of the past price movements. Technical analysis is not astrology for predicting prices. Technical analysis is based on analyzing current demand-supply of commodities, stocks, indices, futures or any tradable instrument.

Technical analysis involves information like prices, volumes and open interest on a chart and applying various patterns and indicators to it in order to assess the future price movements. The time frame in which technical analysis is applied may range from intraday(1-minute, 5-minutes, 10-minutes, 15-minutes, 30-minutes or hourly), daily, weekly or monthly price data to many years. There are essentially two methods of analyzing investment opportunities in the security market viz fundamental analysis and technical analysis. You can use fundamental information like financial and non-financial aspects of the company or technical information which ignores fundamentals and focuses on actual price movements.



## Bar Charts vs Candlesticks

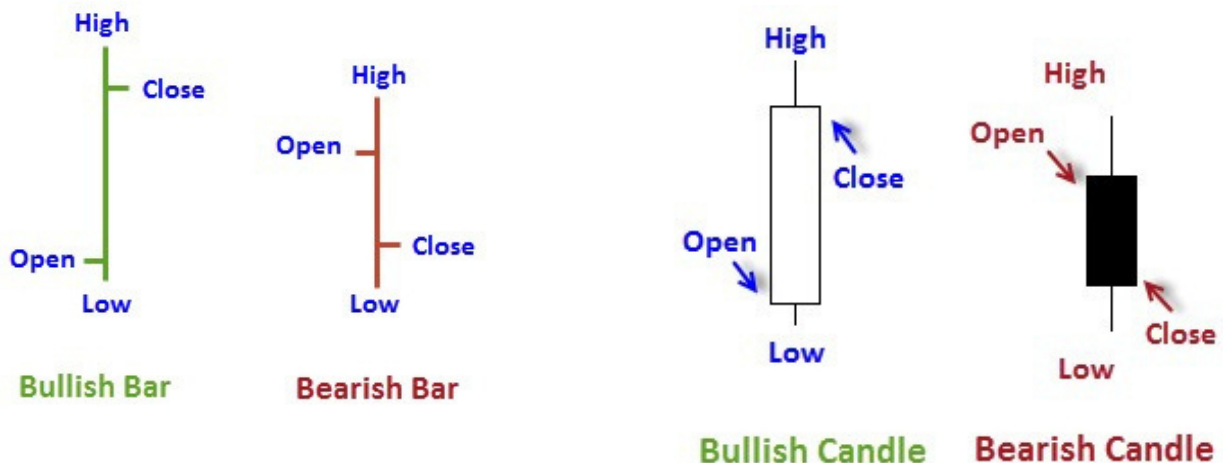
Japanese Candlesticks have been used by traders since the 1700s and very popular amongst Forex Traders. When you consider there are many patterns varying from 1 candle to several candles, by the time you start mixing combinations you literally have hundreds of patterns names to learn. My advice here is that by learning the names of all of the patterns will not necessarily make a better trader. In fact the opposite is probably true...

Bar charts are the Western equivalent and created using exactly the same information: OHLC (Open, High, Low, and Close). However their interpretation is slightly different.

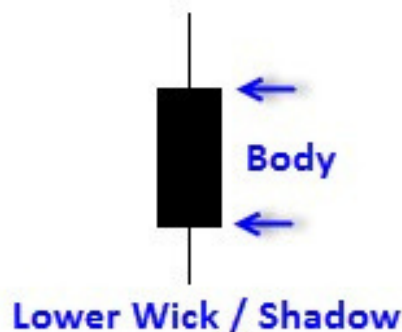
Bar Charts: Focus on the relationship between the highs and lows of the current bar compared to the previous bar.

Candlesticks: Focus on the relationship between the bodies and Wicks.

Seeing as both candlesticks and bars use the same information to construct them (OHLC) you can indeed mix both forms of analysis. However seeing as Candlesticks are visually easier to interpret, many use Candlestick as the preferred method to use both forms of analysis.



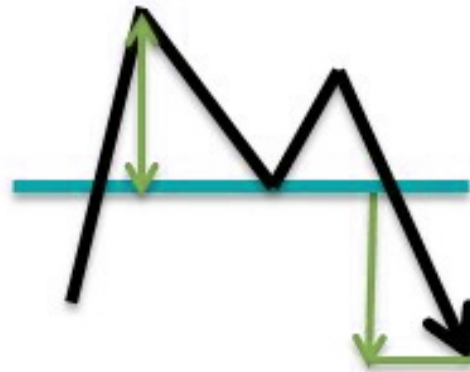
## Upper Wick / Shadow



## DOUBLE BOTTOM (BULLISH)



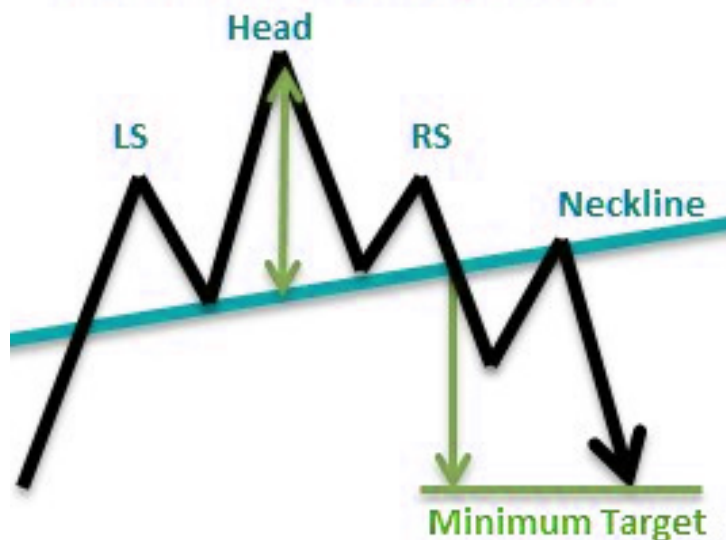
## DOUBLE TOP (BEARISH)



### Double/Triple Tops and Bottoms

- Can be difficult to trade because (like flags/pennants) they are often very messy
- Good for observational purposes and targets
- Act as a good warning that trend is losing strength (due to the lower high/low)
- Easier to enter after a breakout

## HEAD & SHOULDERS (BEARISH)



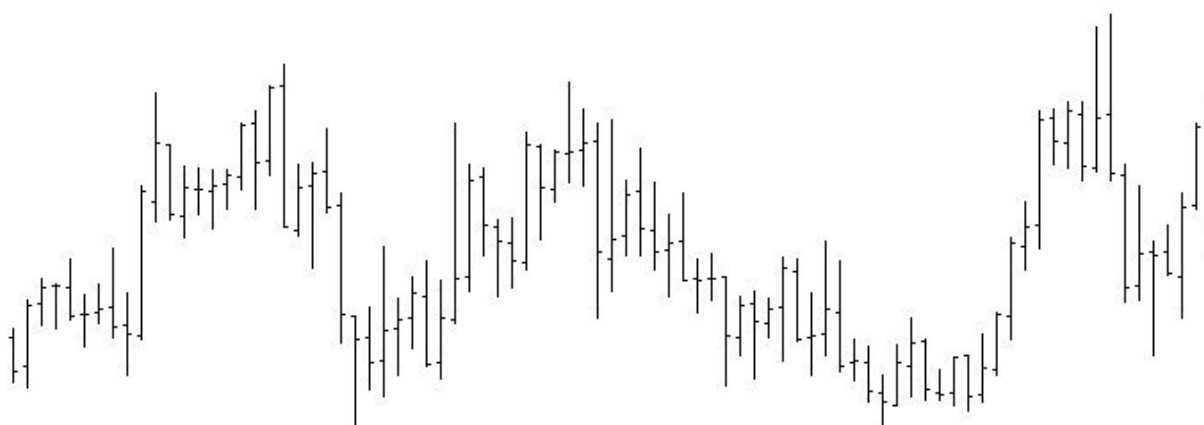
### Head and Shoulders (Inverted H&S on market bottoms)

- Generally better when the RS (right Shoulder) is smaller than LS.
- Similar to wedges make excellent trading opportunities if market retests the broken trendline (neckline)
- Break outs can be very strong and fast, particularly in stock/Index markets after a bullish trend when the markets panic and offload
- This can make them difficult to enter on the breakout or get a decent entry price (due to slippage and price gaps etc.)
- I prefer to confirm patterns then look for suitable retracement before entering in direction of the breakout.

## CHARTS

Forex trading platforms and most asset reporting sites provide information using either line charts or candlestick charts.

### LINE CHART



Candlestick charts are popular because they provide much more information: within a prescribed time period (the width of the candle), each candle displays the asset's opening, closing, maximum and minimum prices. Opening and closing prices are provided by the top and bottom of the candle; and each candle, having two wicks (one on either side), also provides the maximum price during the time period (the top wick – its shadow) and minimum price (the bottom wick its tail). Candles are usually green if the asset's price rose during the time period, and red if it fell.

### CANDLE STICK CHART



## TRENDS

A trend is a fixed general movement in an asset's value. If the value increases over a certain time frame, the trend is rising; if over that time frame the value dropped, the trend is falling. This is true, even if within the time frame measured there are several upward or downward movements.

What is more relevant, trends are what enable beginner and even veteran traders to successfully identify trade opportunities. Most of the time (some estimates range as high as 70% of the time) an asset will be relatively stable in a sideways trend, with prices moving within a relatively narrow range.

### **DIRECTIONAL TRENDS TEND TO OCCUR ONLY 30% OF THE TIME. TWO THINGS TO REMEMBER THOUGH ARE THAT:**

nobody expects to make winning trades all of the time – do not trade if you cannot discern a trend, and

even a stable asset can be zoomed in upon until a trend is discernible.

In general, once a trend is recognized, beginner traders would be well advised to invest with the trend. There are more than enough seasoned speculators who are trading against the trend, which can be a riskier strategy.

#### **EUR/CHF RISING TREND CHART**



## CHARTING

## SUPPORT AND RESISTANCE

Once trend lines are drawn connecting the upper prices and the lower prices of an asset, it is possible to discern the two most important trend lines for any asset – its support and resistance levels – the price below and above which an asset's price will not fall or rise, respectively. These are generally dictated by the mass public of traders, who will not pay more for, or even hold on to an asset they consider over-priced by its nearing or crossing its resistance level, on one hand. Support, on the other hand, reflects a price that traders consider as the asset's rock-bottom price – perhaps even under-priced – and one that is bound to rise.



Support and resistance levels are useful in identifying a trend. When the asset reaches support, traders begin buying; demand gradually overtakes supply and the asset rises towards resistance. When it reaches resistance, traders stop buying, perhaps even selling; supply overtakes demand and prices fall towards support.

## CHARTING

## SUPPORT BECOMING RESISTANCE

The breaking of support and resistance levels indicates a change in market perception on the part of traders. When that happens, support and resistance will be found momentarily at equal levels – a sign that the market is changing and that the support level is becoming the resistance level (or vice versa) and a new resistance level (or – conversely – support) is being sought. In this case, traders are well advised to wait for rates to drop below the old support level and place a short position – in anticipation of the new support level being defined, since chances of values rising above the new resistance level are low. If this happens repeatedly, though, a downward moving channel may be forming – once again, an opportunity for placing a short position.

It is important to take note, however, that in an upward or downward trending channel, breaking support or resistance can also mean that the trend is accelerating.

## TECHNICAL INDICATORS | RSI

As in fundamental analysis, technical analysis too has its indicators, or mathematical models for analysing past and present asset behaviour and predicting the future. Since an in-depth explanation of their mechanics is beyond the scope of this introductory manual, we will concentrate on three main indicators and describe their use in very general terms. A more detailed explanation for these and others may be found in our advanced trading academy.

### RSI RELATIVE STRENGTH INDEX

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



### HOW RSI INDICATOR WORKS

- RSI is considered overbought when above 70 and oversold when below 30.
- RSI also often forms chart patterns that may not show on the price chart, such as double tops and bottoms and trend lines. Also, look for support or resistance on the RSI.
- In an uptrend RSI tends to remain between 40 to 90 ranges with the 40-50 zone acting as support. During a downtrend, RSI tends to stay between the 10 to 60 ranges with the 50-60 zones acting as resistance.
- If security prices are made new high or low that isn't confirmed by the RSI, this divergence can signal a price reversal. If the RSI makes a lower high and then follows with a downside move below a previous low, a Top Swing Failure has occurred. If the RSI makes a higher low and then follows with an upside move above a previous high, a Bottom Swing Failure has occurred.

## TECHNICAL INDICATORS | MOVING AVERAGES

The definition of 'Moving Average' refers to the average value of a security's price over a given period. It is a widely used indicator in technical analysis that helps smooth out price action by filtering out the "noise" from random price fluctuations. A moving average (MA) is a trend-following or lagging indicator because it is based on past prices.

There are several uses for moving average (MAs) for people in the trading industry. They are useful to:

- 1- Measure the momentum of price
- 2- Ascertain the direction of the current and future price of the security
- 3- Define sections of possible supports and resistances
- 4- Give importance to the direction of a trend
- 5- Reduce the 'noise' of price and volume which otherwise may create confusion while analyzing.

### DIFFERENT TYPES OF 'MOVING AVERAGE'

#### SIMPLE MOVING AVERAGE (SMA)

It is simply the average price of a security at a given period. Usually, these are calculated using closing prices. The sum of closing prices for the last ten days divided by ten is the Moving Average of that security. Naturally, as its name implies, the moving average moves or changes with the price movement.

SMA is the easiest moving average to construct. It is simply the average price over the specified period. The average is called "moving" because it is placed on the chart bar by bar, showing a line that moves along the chart as the average value changes.



### HOW THIS INDICATOR WORKS

- SMAs are used to determine the trend's direction. If the SMA is moving up, the trend is up. If the SMA is moving down, the trend is down. A 200-bar SMA is typically used for the long-term trend. 50-bar SMAs are typically used to measure the intermediate trend. Shorter period SMAs can be used to determine shorter-term trends.
- SMAs are commonly used to smooth price data and technical indicators. The longer the period of the SMA, the smoother the result, but the more lag that is introduced between the SMA and the source.
- Price crossing SMA is often used to trigger trading signals. When prices cross above the SMA, traders might want to go long or exit short; when they cross below the SMA, traders might want to go short or exit long.

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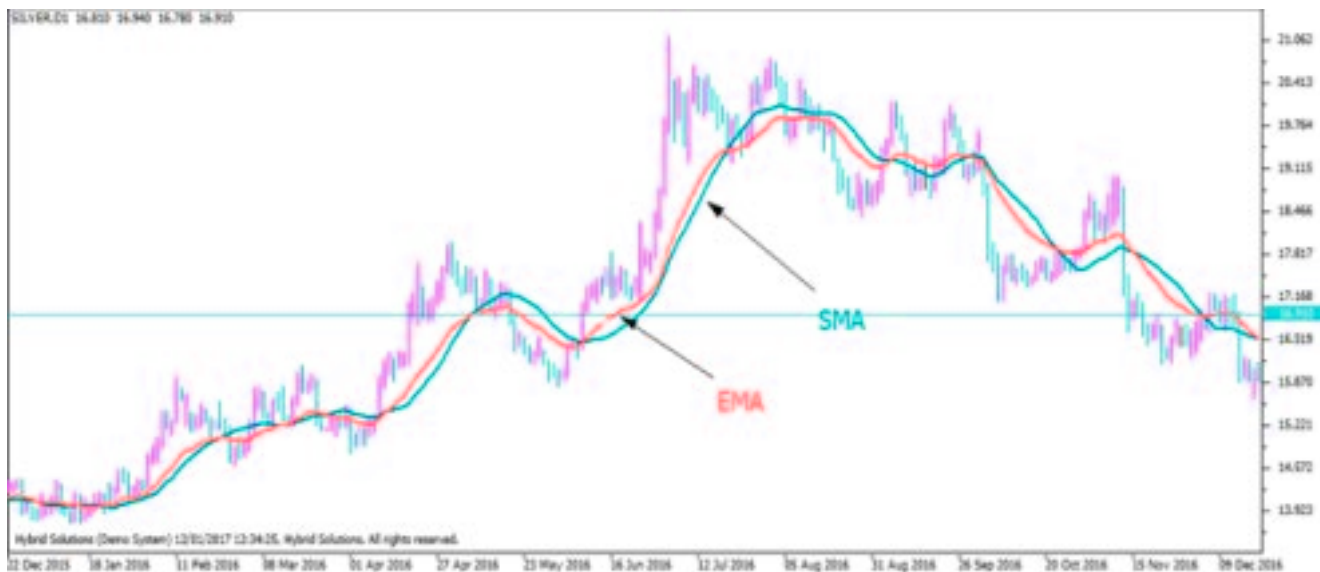


- SMA Crossing SMA is another common trading signal. When a short period SMA crosses above a long period SMA, traders may want to go long. Traders may want to go short when the short-term SMA crosses back below the long-term SMA.



# EXPONENTIAL MOVING AVERAGE

This moving average focuses more on the recent price movement and hence it is considered more responsive than a simple moving average. The calculation for this is not as simple as the calculation for a simple moving average [SMA]. It is complicated. VertexFX Trader provides the calculation of EMA and hence traders can easily concentrate on other implications rather than on the calculations. EMA turns faster and has less lag than SMA.



## HOW THIS INDICATOR WORKS

- Use the same rules that apply to SMA when calculating EMA. Keep in mind that EMA is generally more sensitive to price movement. This can be a double-edged sword. On one side, it can help you identify trends earlier than an SMA would. On the other hand, EMA will experience more short-term changes than SMA.
- Use the EMA to determine trend direction and trade in that direction. When the EMA rises, traders may want to buy when prices come near or just below the EMA. When the EMA falls, traders may consider selling when prices come near or just above the EMA.
- Moving averages can also indicate support and resistance areas. A rising EMA tends to support prices, while a falling EMA tends to provide resistance to prices. This reinforces the strategy of buying when the price is near the rising EMA and selling when the price is near the falling EMA.
- All moving averages, including EMA, are not designed to identify a trade at the exact bottom and top. Moving averages may help you trade in the general direction of a trend, but with a delay at the entry and exit points. The EMA has a shorter delay than the SMA with the same period.

### HOW ARE MOVING AVERAGES USED?

Moving averages with different time frames can provide a variety of information. A longer moving average (such as a 200-day EMA) can serve as a valuable smoothing device when you are trying to assess long-term trends.

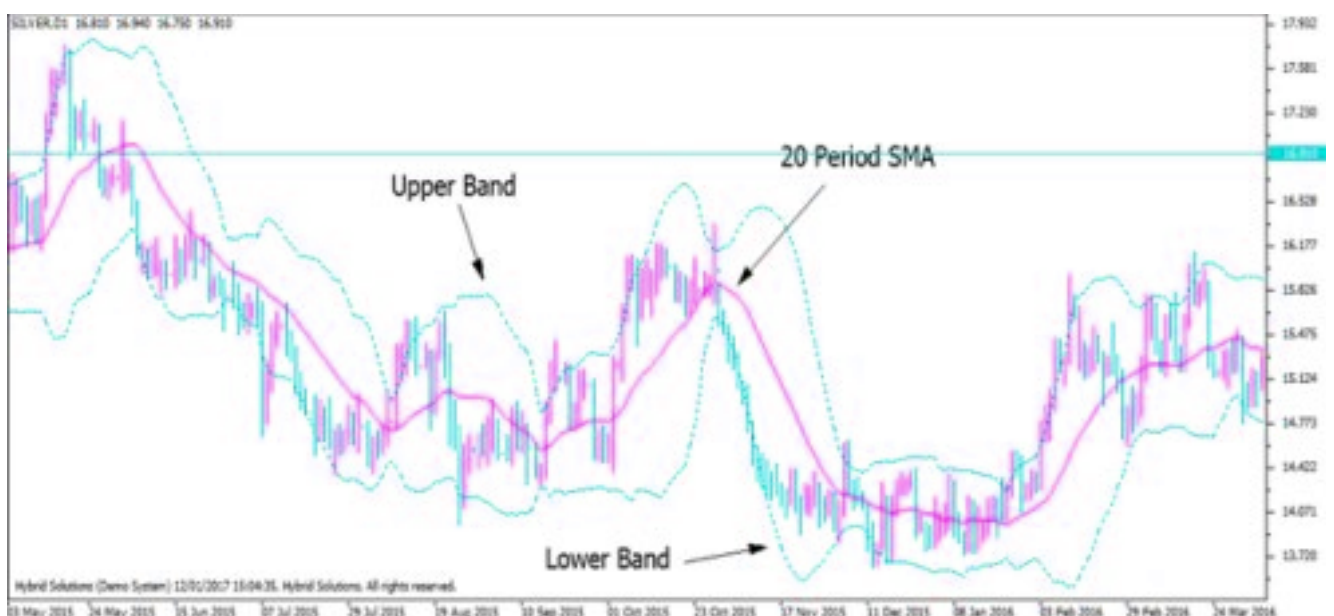
A shorter moving average, such as a 50-day moving average, will more closely follow the price action, and therefore is frequently used to assess short-term patterns. Each moving average can serve as a support and resistance indicator and is frequently used as a short-term price target or key level.

How exactly do moving averages generate trading signals? Moving averages are widely recognized by many traders as potentially significant support and resistance price levels. If the price is above a moving average, it can serve as a strong support level meaning if the stock does decline, the price might have more difficulty to be falling below the moving average price level. Alternatively, if the price is below a moving average, it can serve as a strong resistance level meaning if the stock were to increase, the price might struggle to rise above the moving average.

Bollinger Bands are types of price envelopes that were developed by John Bollinger. (Price envelopes define upper and lower price range levels). Bollinger Bands are envelopes plotted at a standard deviation level above and below a simple moving average of the price. Because the distance of the bands is based on standard deviation, they adjust to volatility swings in the underlying price.

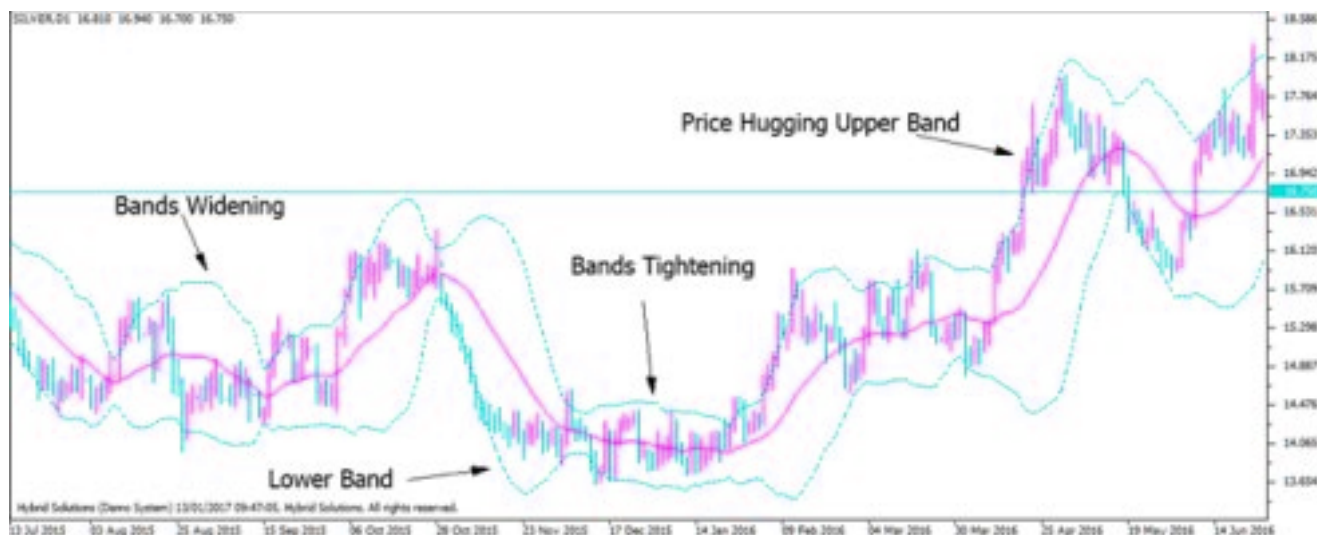
Bollinger Bands use 2 parameters, Period and Standard Deviations, StdDev. The default values are 20 for the period, and 2 for standard deviations.

Bollinger bands help determine if prices are high or low on a relative basis. They are used in pairs, both upper and lower bands in addition to a moving average. Further, the pair of bands is not intended to be used alone. Use the pair to confirm signals given with other indicators.



### HOW THIS INDICATOR WORKS

- When the bands narrow during a period of low volatility, it boosts the probability of an intense price movement in either direction. This may start a new trend move. We should be careful with false moves in the opposite direction which reverses before the proper trend begins.
- When the bands are separated by an unusually large amount, volatility increases, and any existing trend may be ending.
- Prices tend to bounce between the bands' envelopes. You can use these swings to help identify potential profit targets. For example, if a price bounces off the lower band and then crosses above the moving average, the upper band then becomes the profit target.
- Price can exceed or hug the band envelope for long periods through strong trends. Traders may want to do additional research to determine if taking additional profits is applicable.
- A strong trend continual on can be expected when the price moves out of bands. However, if prices move instantly back inside the bands, then the suggested strength is revoked.



### CALCULATION

At first, calculate a simple moving average. Next, calculate the standard deviation over the same number of periods as the simple moving average. For the upper band, add the standard deviation to the moving average. For the lower band, subtract the standard deviation from the moving average. Typical values used:

20-day moving average, bands at 2 standard deviations. (2 times the standard deviation +/- the SMA)

Middle Band = 20 Day Simple Moving Average

Upper Band = 20 Day Simple Moving Average + (20 days Simple Moving Average + Standard

Deviation x 2) Lower Band = 20 Day Simple Moving Average - (20 days Simple Moving Average + Standard Deviation x 2)

VertexFX is used for the calculation of the Bollinger Bands and for applying it on the chart by many technical analysis and traders.

## TECHNICAL INDICATORS

MACD, short for moving average convergence divergence, is a trading indicator used in technical analysis of stock prices, created by Gerald Appel in the late 1970s. It reveals changes in the strength, direction, momentum, and duration of a trend in a security price.

The MACD indicator is a momentum oscillator used to trade trends. Although it is an oscillator, it is not typically used to identify overbought or oversold conditions. On the chart, it appears as two lines that oscillate without boundaries. The intersection of the two lines provides trading signals.

The concept behind the MACD is very easy; it calculates the difference between a security 26-day and 12-day exponential moving averages (EMA). One of the two moving averages that is constructing the MACD, the 12-day EMA is the faster one, while the 26-day is the slower. In the calculation of their values, both moving averages use the closing. When attaching the MACD on the chart using VertexFX, a nine-day EMA of the MACD itself is plotted as well, and it acts as a signal provider for buy and sells decisions. The MACD generates a buy signal when it moves above its own nine-day EMA, and it generates a sell sign when it moves below its nine-day EMA.

## THE THREE MAJOR COMPONENTS

### 1 The MACD Line

MACD Line is a result of taking a longer-term EMA and subtracting it from a shorter-term EMA. The most commonly used values are 26 days for the longer-term EMA and 12 days for the shorter-term EMA, but it is the trader's choice.

### 2 The Signal Line

The Signal Line is an EMA of the MACD Line described in Component 1.

The trader can choose what period length EMA to use for the Signal Line however 9 are the most common.

### 3 The MACD Histogram

The difference between the MACD Line and Signal Line will continually differ. The MACD histogram takes that difference and plots it into an easily readable histogram. The difference between the two lines oscillates around a Zero Line.

When the MACD histogram is above the Zero Line, the MACD is considered positive and when it is below the Zero Line, the MACD is considered negative.



# HOW MACD INDICATOR WORKS

- When the MACD crosses above the zero line, then it is considered a bullish signal (signal to buy), while when the MACD crosses below the zero line, then it is considered a bearish signal (signal to sell).
- When the MACD elevates from below zero then it is considered a bullish signal. On the contrary, when it demotes from above zero then it is considered a bearish signal.
- When the MACD line crosses from below to above the signal line, the indicator is considered bullish.
- When the MACD line crosses from above to below the signal line, the indicator is considered bearish.
- During trading ranges the MACD might whipsaw, with the MACD line crossing across the signal line. The trader who uses the MACD generally avoids trading in this case or closes positions to reduce loss within their accounts.
- Divergence between MACD and price action is a stronger signal when it confirms the crossover signals.

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## TECHNICAL INDICATORS | FIBONACCI RETRACEMENTS

Perhaps one of the more unusual indicators for the novice trader to understand is the one named for the 13th century Italian mathematician who identified a sequence of numbers whose pattern reoccurs inexplicably throughout nature. Leonardo Fibonacci defined a sequence of numbers in which each number is the sum of the two numbers preceding it (0, 1, 1, 2, 3, 5, 8, 13, 21 ...). Thus, the ratio of each number to the one preceding it is 61.8% - the golden ratio which closely resembles the Aristotelian Golden Mean. To the same extent that the ratio appears in nature, it also applies to financial markets, and traders use them to predict trend reversals.

When selecting this retracement from amongst the trading platform's technical indicators, the width of a channel defined by the user will be divided into percentages – 0.0%, 23.6%, 38.2%, 50.0%, 61.8% & 100.0%, and lines will extend along the chart dividing it in accordance.





"The purpose of trading is not being right, the purpose is to make money, and I think that's my number one rule. Don't get hung up on your current positions."

# Thank you!



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