

A GUIDE TO

WL INDICATORS

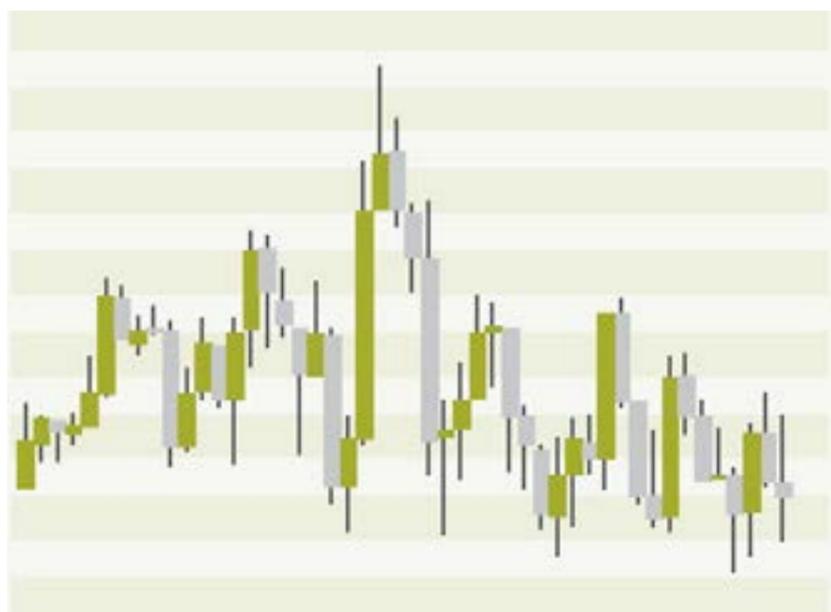
GETTING TECHNICAL ABOUT TRADING: USING EIGHT COMMON INDICATORS TO MAKE SENSE OF TRADING

What's a technical indicator and why should I use them?

What's the market going to do next? is a question that's almost always on traders' minds. Over time, traders have looked at price movements on charts and struggled to make sense of the ups, downs, and sometimes sideways movements of a particular market.

That's given rise to technical indicators – a set of tools that use the real-time market moves of an instrument to give traders a sense of what the market will do next. There are hundreds of different indicators that traders can use, but whether you're a new trader or an old hand at it, you need to know how to pick one, how to adjust its settings, and when to act on its signals.

In this guide, we'll show you how you might improve your trading prowess with eight of the most commonly used indicators. We'll also show you five mistakes to avoid when using technical indicators.



After price moves like this, what do you think the market will do?

Moving Average (MA)

A Moving Average (MA) combines the price of an instrument over a particular time frame and divides by the time frame to smooth price moves into a single trend line.

Traders use these to reduce the noise that price sometimes causes and identify patterns in the price moves when the market is volatile. Moving averages are often utilized to determine the trend in volatile markets.

There are many types of MAs and traders typically use more than one to determine market momentum. The most popular are the Simple Moving Average (SMA) or the Exponential Moving Average (EMA).

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Simple Moving Average (SMA)

A simple moving average (SMA) combines the closing prices of an instrument over a specific time frame and averages that value by the number of time frames.

How is it different from other MAs?

While other MA calculations may weigh price or time frame differently, the SMA is calculated by weighing the closing prices equally.

Traders usually use more than one SMA to determine market momentum; when an SMA with a short-term time period (for instance, a 15-day SMA) crosses above an SMA with a long-term time frame (a 50-day SMA), it usually means that the market is in an uptrend.

When an SMA with a shorter time period crosses below an SMA with a longer time period, it usually means that the market is in a downtrend. Traders also use SMAs to detect areas of support when a trend changes direction. Generally, an SMA with a longer time period identifies a stronger level of support.



Calculation

$SMA = \text{Average of all closing prices across a set number of periods}$

Chart above depicts period = 15

Simple Moving Average Crossover

The graph displays two Simple Moving Averages to form a Simple Moving Average crossover.



The circle represents the cross of the shorter, 15-period SMA over the longer, 50-period SMA.

Exponential Moving Average (EMA)

Like the SMA, Exponential Moving Average (EMA) combines the closing prices of an instrument over a specific time frame and averages that value by the number of time frames. With EMAs, however, the calculation gives more weight to the most recent prices.

How is it used?

Exponential Moving Average Crossover

If prices change, EMAs generally react more quickly than other moving averages. That's one of the reasons why it's used to create other indicators, like the Moving Average Convergence Divergence (MACD). Some short-term traders use 12- and 26-day EMAs, while long-term traders prefer to use 50- and 200-day EMAs.



Calculation

EMA = Average of all closing prices across set number of periods*

*EMA is weighted by most recent prices

Chart above depicts period = 25

The graph displays two exponential moving averages. This is used as an EMA crossover above or used to create other indicators such as the MACD.



The circle represents the cross of the shorter, 25-period EMA over the longer, 50-period EMA.

Moving Average Convergence Divergence (MACD)

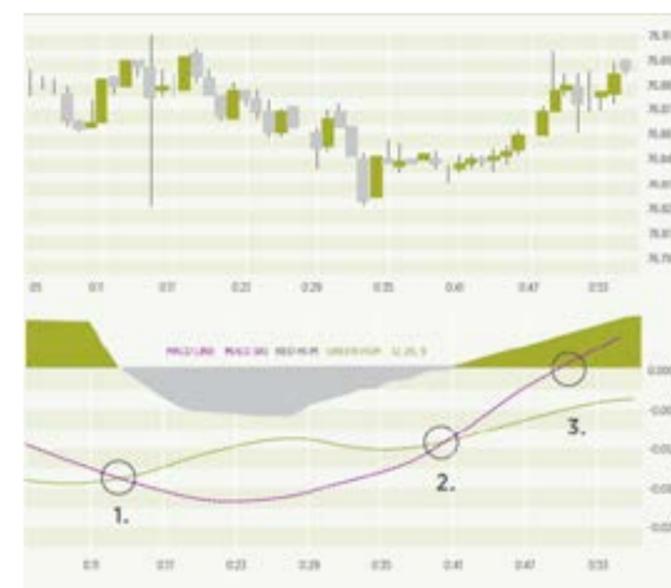
The Moving Average Convergence Divergence (MACD) helps traders forecast when to enter or exit a trade. Based on the Exponential Moving Average (EMA) indicator, this trend-following indicator can also be used to determine the underlying momentum behind a trend.

The MACD is calculated by subtracting the value of a fast, 12-day EMA from the value of a slow, 26-day EMA. This value is compared to a nine-day EMA of the MACD, which is displayed as a signal line.

The MACD is shown in a chart below the normal one. It also displays a histogram, which represents the difference between the MACD and the signal lines.

With the MACD, traders watch for several types of movements.

- MACD lines crossing the signal line:
Most traders see the MACD line cross over the signal line as a signal to buy while a drop below the signal line is seen as a sign to sell. No matter what the signal, traders often wait for a confirmed cross before placing a trade.
- The MACD line moving away from price movements:
When price movements diverge away from the MACD line, traders typically view this as the end of the current trend.
- The 12-day EMA diverges from the 26-day EMA:
When the MACD rises suddenly, traders see this as a sign that the instrument is gaining momentum.
- Movement above or below the zero line:
Many traders use the zero line to detect possible support or resistance levels. If the MACD rises above zero, this means the 12-day EMA is above the 26-day EMA. Traders view this as a sign that the instrument is in an uptrend. Conversely, if the MACD drops below zero, this means the 12-day EMA is below the 26-day EMA. Traders see this as a sign that the instrument is in a downtrend.



1. MACD crosses below the signal line, indicating a potential sell trade.
2. MACD crosses above signal line, pointing to a buy opportunity.
3. Cross above zero confirms a buy trade.

Commodity Channel Index (CCI)

The Commodity Channel Index is an oscillator that helps traders forecast when a currency pair is overbought or oversold based on cyclical price movements.

CCI compares the current price change with the average price change.



If the difference between these two values is positive, it shows that the market moves are strengthening. That's because prices are above the average. If the difference is negative, it shows that the market moves are weakening because prices are below the average.

Many applications calculate CCI automatically; for example, when you first open the indicator in the DealBook® platform, the CCI is set to 14 days.

If you're interested in knowing how CCI is calculated, you can use the following calculation:

$$CCI = \frac{(TP - \text{Simple Moving Average TP})}{(0.015 \times \text{Mean Deviation})}$$

1. TP or Typical Price is calculated as:

$$\text{Typical Price} = \frac{\text{High} + \text{Low} + \text{Close}}{3}$$

2. Simple Moving Average TP is calculated as:

$$\text{SMA TP} = \frac{(TP1 + TP2 + \dots + TPx)}{x}$$



TPx is the typical price for the time period. For example, if you wanted a CCI of 14 days, the time period would be 14 days. X is the time period. You'll use this to calculate the average.

3. Mean Deviation is calculated as:

$$\text{Mean Deviation} = \frac{([TP1 - \text{SMA TP1}] + \dots + [TPx - \text{SMA TPx}])}{x}$$

TPx is the typical price for the time period.

SMA TP is the moving average of the typical price for the time period. x is the time period.

Relative Strength Index (RSI)

The Relative Strength Index (RSI) is a technical indicator that shows when a financial product is overbought or oversold. Traders use this to determine when to enter or exit a position.

RSI compares the average number of days that an instrument closes up to the average number of days that it closes down. This average is then rated on a scale of 1 to 100.



Traders can calculate it manually using the following formula.

$$RSI = 100 - \frac{100}{1 + RS}$$

RS = Average of x days when the instrument closed up / Average of x days when the instrument closed down.

Typically, RSI is used with a 9-, 14-, or 25-calendar day (7-, 10-, or 20-trading day) period against the closing price of an instrument. If you add more days to the calculation, the value is considered less volatile.

Traders monitor the RSI value, considering the instrument overbought when its price goes above the 70 baseline and oversold when its price drops below 30 baseline.

Traders using the RSI indicator should use it with other indicators. Sudden surges or drops in the price of an instrument can create inaccurate buy or sell signals.

Stochastic Oscillator

The Stochastic Oscillator compares the closing price of an instrument to its price over a certain period of time. Traders use this to measure the momentum of a trend as well as determine when it may reverse its course. They can then forecast possible entry or exit points.



The Stochastic Oscillator measures whether an instrument is overbought or oversold by analysing how long it can maintain the trend. This uses two lines: the %K and %D which appear on a sub-chart below the price chart.

- The %K line compares the market close for the day to the trading range over 14 days.
- The %D line is a signal line which uses a simple 5-day Simple Moving Average (SMA) of the %K.

This can be calculated as:

$$\%K = 100[(C - L14)/(H14 - L14)]$$

- C = The most recent closing price.
- L14 = The low of the 14 previous trading sessions.
- H14 = The highest price traded during the same 14-day period.
- %D = 5-period moving average of %K.

Traders monitor the oscillator as it moves between a range of zero and 100. They consider the instrument oversold when the %K or %D moves below 20 and overbought when the %K or %D moves over 80. When the %K line crosses the %D, many traders consider this to be a good place to buy and when the %D crosses the %K, it is a good place to sell.

Bollinger Bands

Bollinger Bands forecast the potential high and low prices for an instrument relative to the moving average. They also help traders visualise volatility and determine when a trend may continue or reverse.



Bollinger Bands consist of three bands:

- THE MIDDLE BAND is calculated on the average price of an instrument over a specific time period.
- THE UPPER BAND uses the Middle Band plus two standard deviations; a standard deviation measures how close prices are to the average.
- THE LOWER BAND also uses the Middle Band, minus two standard deviations.

During normal market conditions, the bands usually appear to move in a synchronous pattern, but you can use them to view market volatility.

1. If the distance between the bands is tight, it indicates low volatility in the market.
2. If the distance between the bands is wide, it shows high volatility in the market.

When price movements closely follow the middle band, traders consider the instrument to be trading within its average.

These bands are continually changing based on the real-time price movements of the instrument. Traders read the bands in a number of different ways.

When price moves are close to the Upper Band, the current price of the instrument is considered high relative to recent prices. If they cross the Upper Band, traders consider the instrument to be overbought.



When price moves are close to the Lower Band, the current price is considered low relative to recent prices. If they cross the Lower Band, traders consider the instrument to be oversold.



When price movements closely follow the Middle Band, traders consider the instrument to be trading within its average.



Parabolic SAR (PSAR)

The Parabolic SAR (PSAR) indicator looks at the relationship between the price and time of an instrument. Traders use this to determine the short-term momentum of the instrument and forecast where to place stop orders.

Unlike the indicators previously discussed, the PSAR is useful when you are already in a position. SAR stands for stop and reversal. That's why many traders close their current position and open a new position in the opposite direction once the market reaches the PSAR. Traders may also use PSAR to determine stop points.

When charted, the PSAR pattern appears as a series of points placed above or below the price; traders frequently describe the pattern as a parabola or French curve. The placement of the points depends on the direction of the market movement. In an uptrend, the point is placed below the price. In a downtrend, the point is placed above the price. Often, traders monitor the position of the points; if they change, traders often decide to enter or exit the market.

Like the RSI, traders using the PSAR should use it with other indicators. Sometimes, using the points to forecast direction can be difficult and lead to traders entering or exiting a position prematurely. Many traders will choose to place their stop loss orders at the PSAR value because a move beyond this will signal a reversal, causing the trader to anticipate a move in the opposite direction.



When the parabolic line appears underneath the price moves, the market is in an uptrend. When the line appears above the price moves, it indicates a downtrend.

Some traders look to keep their stops beyond the Parabolic Lines.

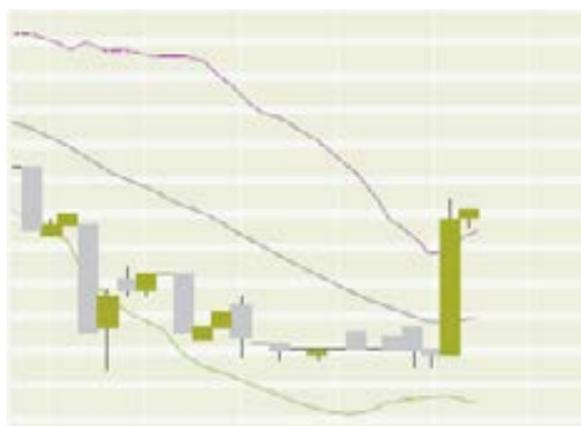
Top 5 Indicator Trading Errors

Now that you know a little bit about all of these indicators, let's look at some common mistakes that newer traders make when applying them.

1. Using Overbought/Oversold Indicators Incorrectly in Trending Markets

One of the most common errors that newer traders make when using overbought/oversold oscillators, such as Stochastics or RSI, is to automatically buy oversold or sell overbought markets. What many new traders don't realise is that prices can remain overbought or oversold for a long period of time in strongly trending markets; indeed, the fact that a certain market is trending implicitly implies that the trade is primarily in only one direction. For this reason, overbought/oversold oscillators are best used in range-bound environments, when there is no clear trend.

Is the market overbought? Or the continuation of an uptrend?



While the price moves have hit the top Bollinger Band, it doesn't necessarily mean that it is a good time to sell. Markets can remain overbought for a long period of time, so traders may want to look for other signs to confirm a sell trade.

2. Assuming More Indicators are Always Better

Another common mistake that many traders, including myself, make at one point is assuming that using more indicators is always preferable. In trading, unlike many other endeavours, additional information often leads to conflicting signals and confusion rather than clarity. This is the essence of the old trading adage, "Over-analysis leads to paralysis."

Another knock against using multiple indicators is that many tools tell traders the same thing (in statistical jargon, this is called multicollinearity). If a currency pair is oversold on the 14-period RSI, it is also likely to be oversold on the Stochastic Oscillator, which cover roughly the same time period. Combining these two indicators is unlikely to give the trader any additional insight and may actually obscure the true state of the market. In general, we encourage traders to focus on only two or three indicators that isolate different aspects of the market and complement each other well. For instance, traders may want to combine an overbought/oversold indicator, a trend indicator, and a momentum indicator to gain a broad-based perspective of the market.

With too many indicators, it's hard to tell exactly what the market is doing.



This trader is using four indicators in their chart: Bollinger Bands, the MACD, the RSI, and the Slow Stochastic. Not only is this trader getting duplicate information, this many indicators makes the chart hard to read.

3. Interpreting Indicator Signals Before a Candle Closes

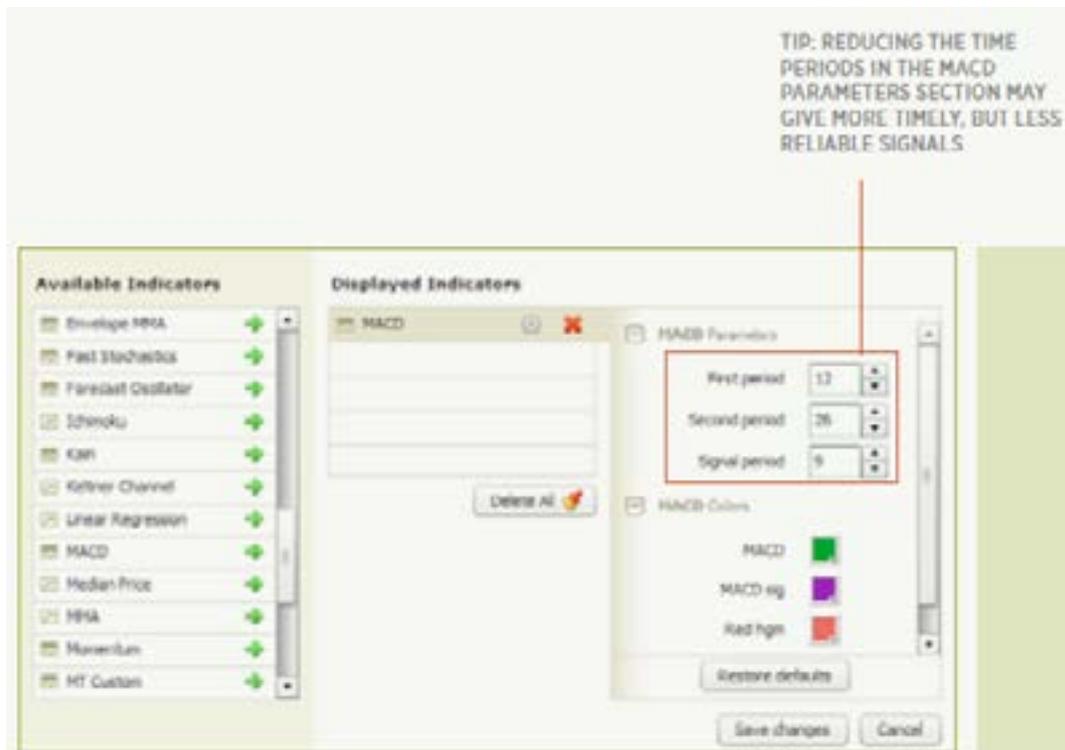
Most indicators adjust in real-time to current market prices. On the surface, this sounds very logical. What few traders realise is that this process can lead to false signals when prices reverse within a given time period. For example, a drop in price during the morning may push the daily RSI out of the overbought area (typically, this is defined as above 80) down to 78, prompting a trader to take a short position. If prices reverse and rally to new highs later that day, not only will the trade likely be stopped out, but the RSI may rise back above 80 line, invalidating the reason for taking the trade in the first place. Traders should exercise caution when interpreting indicators before the relevant time period elapses.



If a trader had made a decision based on the incomplete candle, they may have missed this buy opportunity.

4. Failing to Consider the Reliability vs. Timeliness Tradeoff

All modern trading programs allow traders to adjust the default settings of different indicators. This capability allows traders to tailor specific indicators to their chosen time frame and preferences. In all cases, increasing the sensitivity of an indicator (by reducing the time period, for instance) leads to earlier signals, but those signals by definition become less reliable. Conversely, decreasing an indicator's sensitivity will yield more reliable, but less timely indicators. Each trader must determine the ideal settings for his or her own trading, considering the unavoidable trade off between reliability and timeliness.



While indicator settings can be modified, adjusting the parameters can impact how the indicator reacts to the market.

5. Assuming the Latest Indicator is the "Holy Grail"

The most important thing to remember when using indicators is that they're all simply derivatives of price (and/or volume in some markets). Most of the reliable and logical indicators have already been created, and in an attempt to create new indicators, many analysts stray further and further away from price action. Never forget that traders make money by buying assets low and selling them high; all indicators should be interpreted with consideration to what they are implying about underlying price action.