How to use Moving Average to successfully Analyze Market Trends?

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Introduction

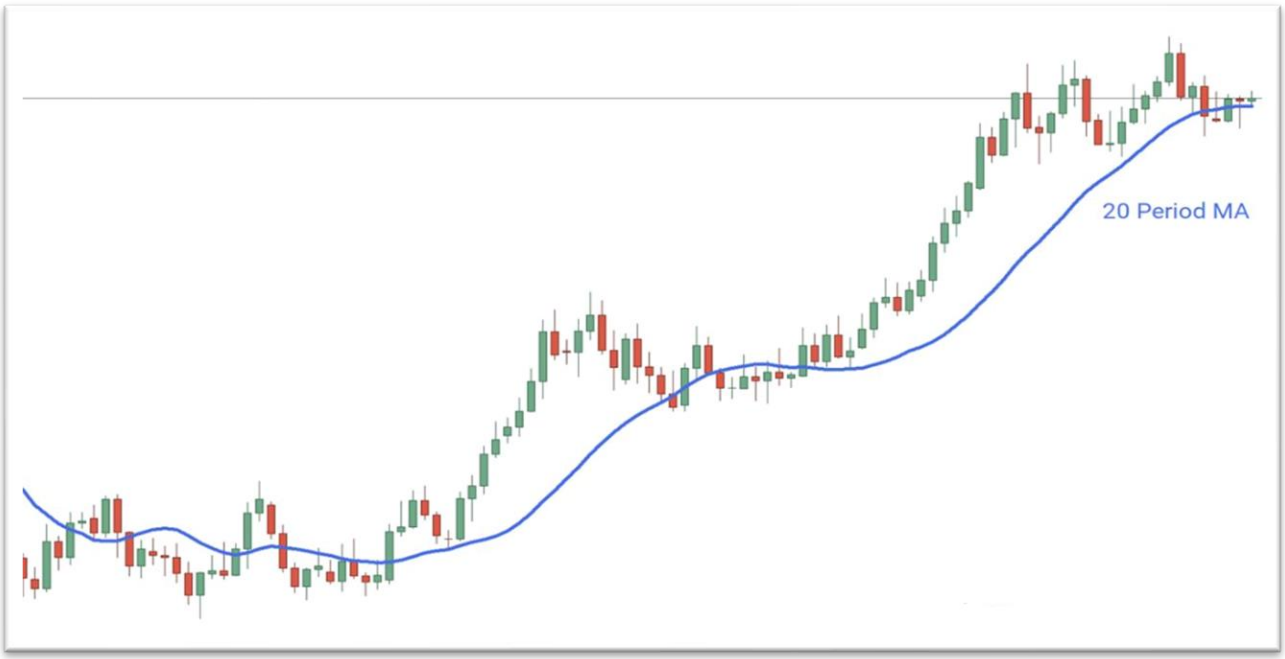
Moving Average is a line on a chart that shows the average of a price for a given period. Commonly also referred to as MA, it is one of the most popular technical analysis indicators. As any other technical indicator, it doesn't predict the future of the market price, but only defines the current state of the market with a small delay.

If you are new to trading the financial markets, this article is going to help you understand how to benefit from using Moving Averages in your trading strategies. You are going to learn not only what is a Moving Average and how is it calculated, but also the most popular types of Moving Averages, how to benefit from combining several MAs and how to use them for additional analysis. Below you can see a full list of the topics covered in the article:

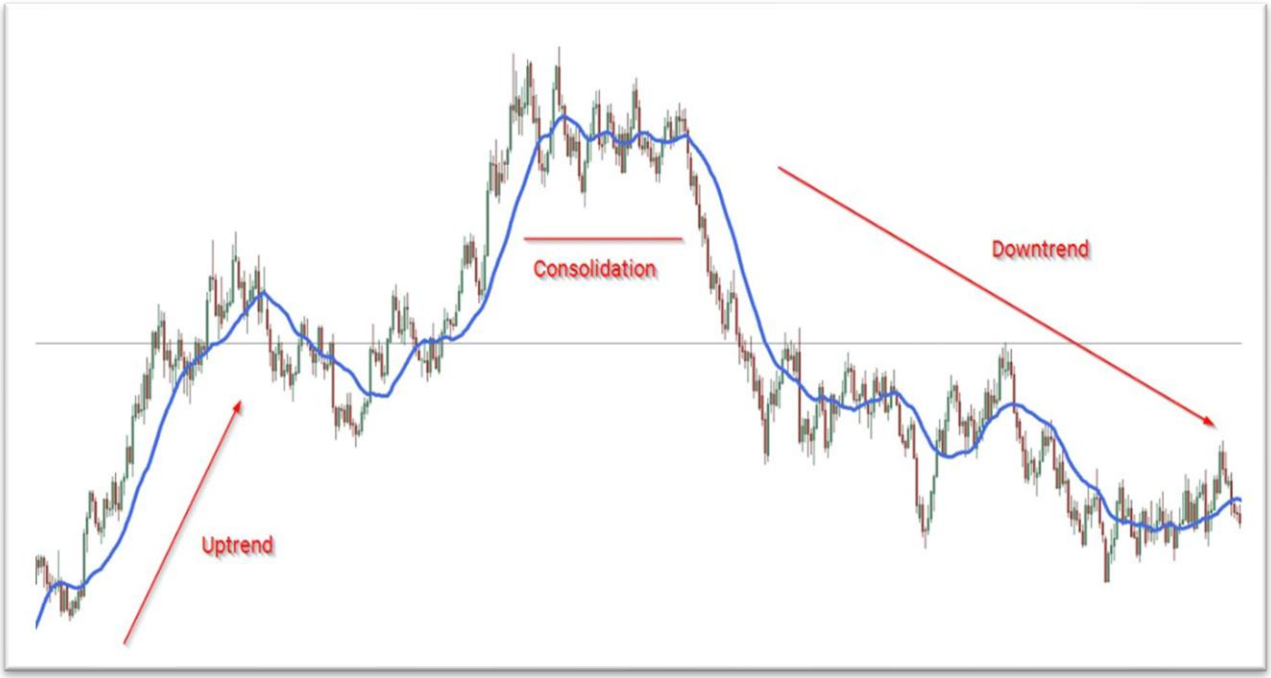
Contents

1. How Moving Averages help you determine the Trend?

What makes the Moving Average one of the favourite technical indicators for a lot of traders is that it makes it easier to spot the direction of the current trend. You can apply it easily, regardless of if you are trading stocks, futures contracts, or Forex pairs.



The single line over the price in the chart is the Moving Average. As you know market prices don't move in a straight line. Instead, they tend to move in a particular direction, but with a different pace and frequent fluctuations. As you can see, when you add an MA on the chart, it helps you get a clear picture of the direction of the trend by smoothing out the sporadic price movements.



Thus, by looking at the slope of the MA line we can determine the current trend direction – uptrend, downtrend, or consolidation.

2. Moving Average time periods

The smoothness of Moving Averages differs according to the duration of their time period. The period is determined by the number of minutes, hours, or days chosen by the trader to calculate the MA of a particular trading instrument's price.

As a result, a longer period MA line is smoother but the reaction to price movement is slower. Vice-versa when the period is shorter, the MA is rough, but the reaction is quicker.

When you chose a shorter period there will be fewer data points. Therefore, the MA will stay close to the current price. This might not be very useful since it offers less insight into the overall trend of the stock price.

When you choose a longer period there will be more data points. This means that single prices won't affect the overall average so much. However, too many data points will make all the ups and downs so smooth, that it can become hard to detect a trend.

Therefore, you should select a balanced period that gives enough details and is appropriate for your trading timeframe.

3. What is the best Moving Average period?

The most popular time periods used in Moving Averages are 10, 15, 20, 30, 50, 100, and 200 bars. These can be minutes, hours, or days according to the timeframe selected.

Day Traders usually prefer to use short-term MAs like 10, 20, or 50. Swing Traders look a longer timeframe and usually focus their analysis on 20, 50, 100, and 200 Moving Averages.

4. Simple Moving Average Vs Exponential Moving Average

There are several types of Moving Averages, depending on the way they are calculated. The most popular ones are Simple Moving Average (SMA) and Exponential Moving Average (EMA). It is important to understand what the differences are between these two major types of MA.

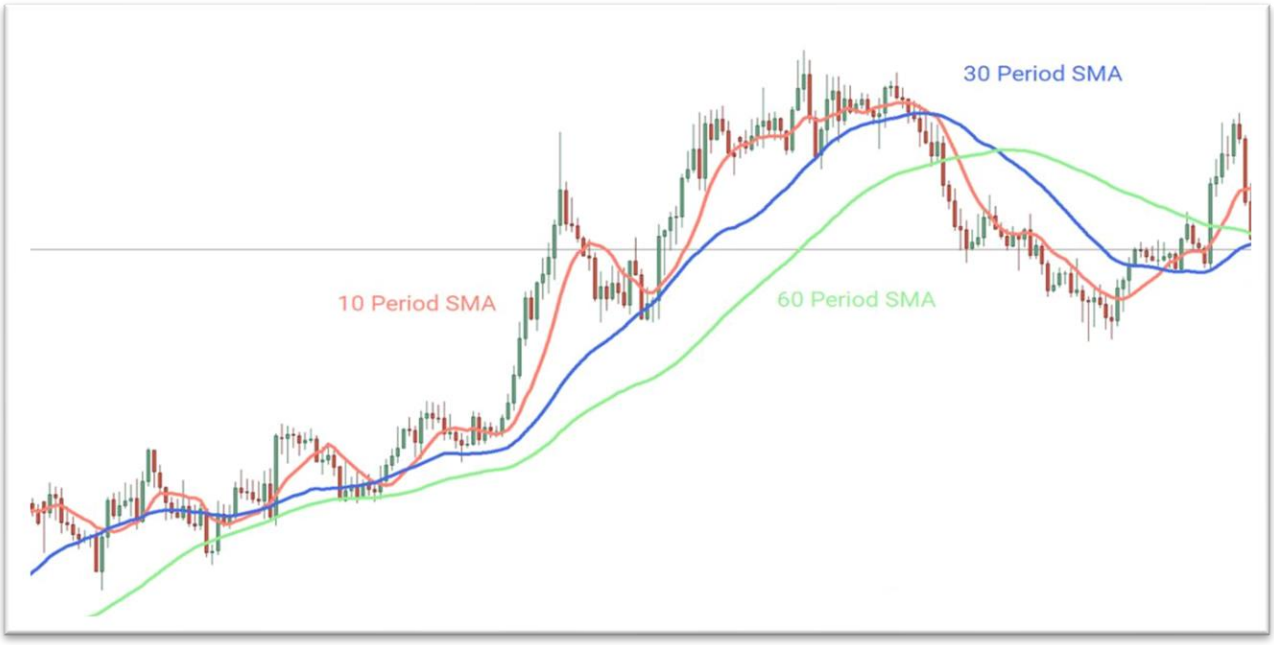
4.1. Simple Moving Average

The first type is the Simple Moving Average. You can easily calculate SMA by adding up the last "X" time period's closing prices and then dividing by X. For example, you are looking at an hourly chart and you want to plot a 5 periods SMA. To do that, you need to add up the closing prices for the previous 5 hourly bars and then divide it by 5. That would give you the average closing price over the last 5 hours. When you plot those average prices together, you can see a 5-hour Simple Moving Average on your chart.

It is necessary to understand the working of SMA because that way you can adjust the indicator in your benefit and be able to create different trading strategies.

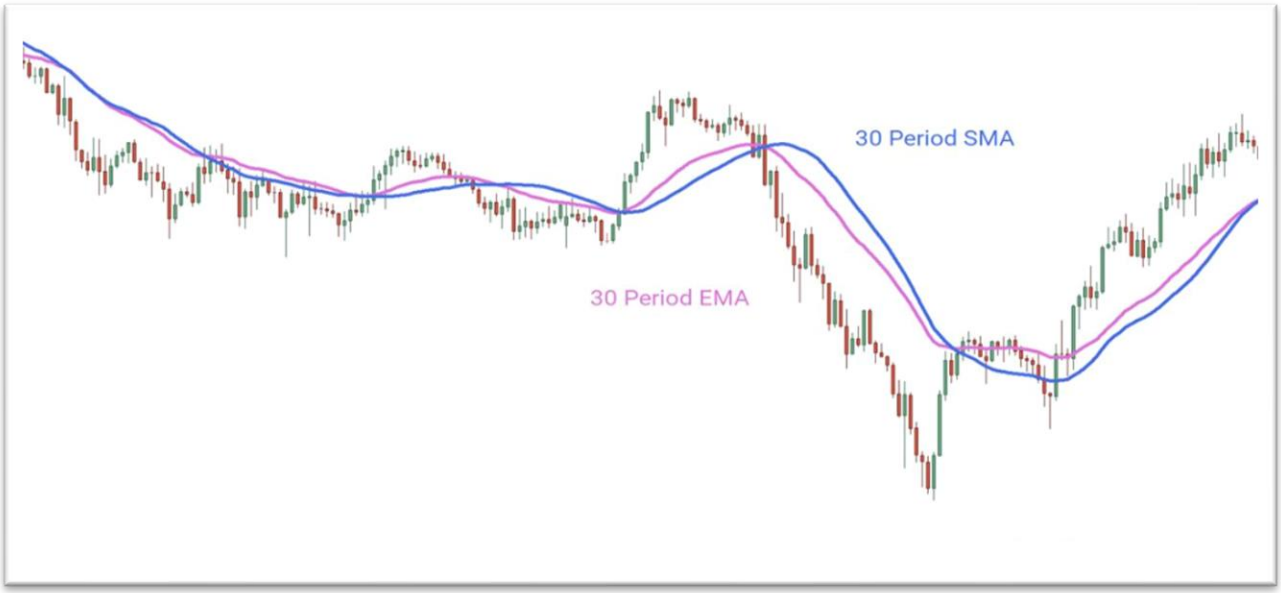
SMA smooths out short term price fluctuations and makes it easy for the traders to tell if the market is trending up, down, or just ranging. However, time periods play a big role.

When the SMA period is longer, there is a bigger delay behind the price. As you can see the 60 SMA is further away from the current price and reacts very slowly to price changes because it is adding up the closing prices of the last 60 periods and then dividing it by 60.



4.2. Exponential Moving Average

The second major MA type is called Exponential Moving Average. EMA gives more weight (importance) to the most recent periods.



When it comes to choosing between SMA and EMA it is important to understand their advantages and disadvantages.

4.3. Which is better SMA or EMA?

EMA is more frequently used with shorter periods in trading systems where a quicker response to price action is needed. EMA is useful in these situations because it helps

you catch trends early. This way you can “ride” them for longer, therefore, get higher profits.

Unfortunately, it is quite likely to get fake signals during times when the stock is getting stronger. The possibility of that happening is high because EMAs respond so quickly that it might mislead you that a trend is forming while in the same this is just a price spike caused by the indicator responding too fast to recent price action.

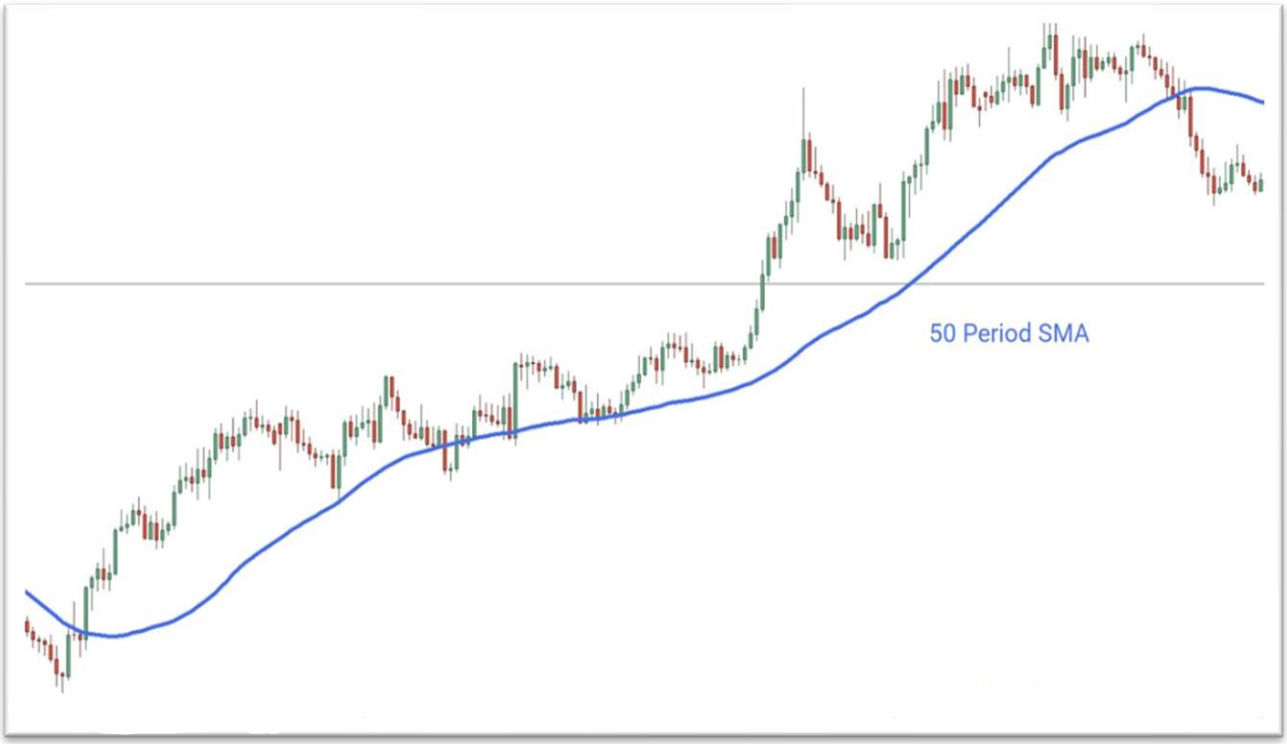
SMA is used for longer periods in trading strategies where you want a smoother MA and slower responses to price actions. Simple Moving Average works better when looking at longer timeframes and its slow response can save you from false breakouts. However, this safety margin you get from the smoothing out can delay your trading signals and result in a missed good entry price or even skip a whole trade.

So, when choosing which type of Moving Average to use in your trading system, keep in mind that EMA gives better results for short term trading signals, while SMA is a good as a long trend indicator. Additionally, you could improve the success of your strategies by using several different MAs at the same time.

5. How to benefit from combining several Moving Averages?

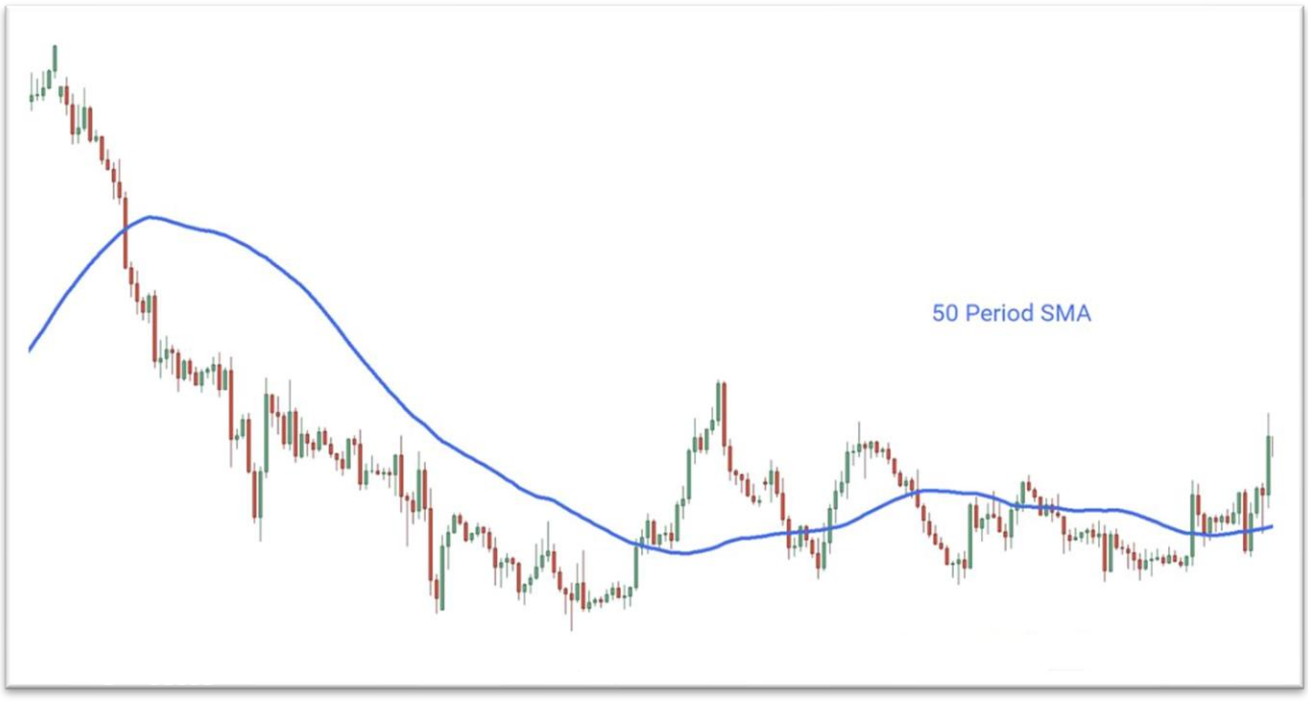
One very popular trading approach is to use a combination of Moving Averages to gain better results. As we covered already, the main use of MA is to determine the direction of a trend. While analyzing a chart you can spot two different situations.

The first one is an uptrend. In this situation, the current price action stays above the MA line (time to buy).



The second situation is a downtrend. In this configuration, the price action stays below the MA line (time to sell).

But sometimes there are situations of false breakouts. To improve the quality of the trading signals, some traders prefer to use a combination of MAs to filter out such situations.

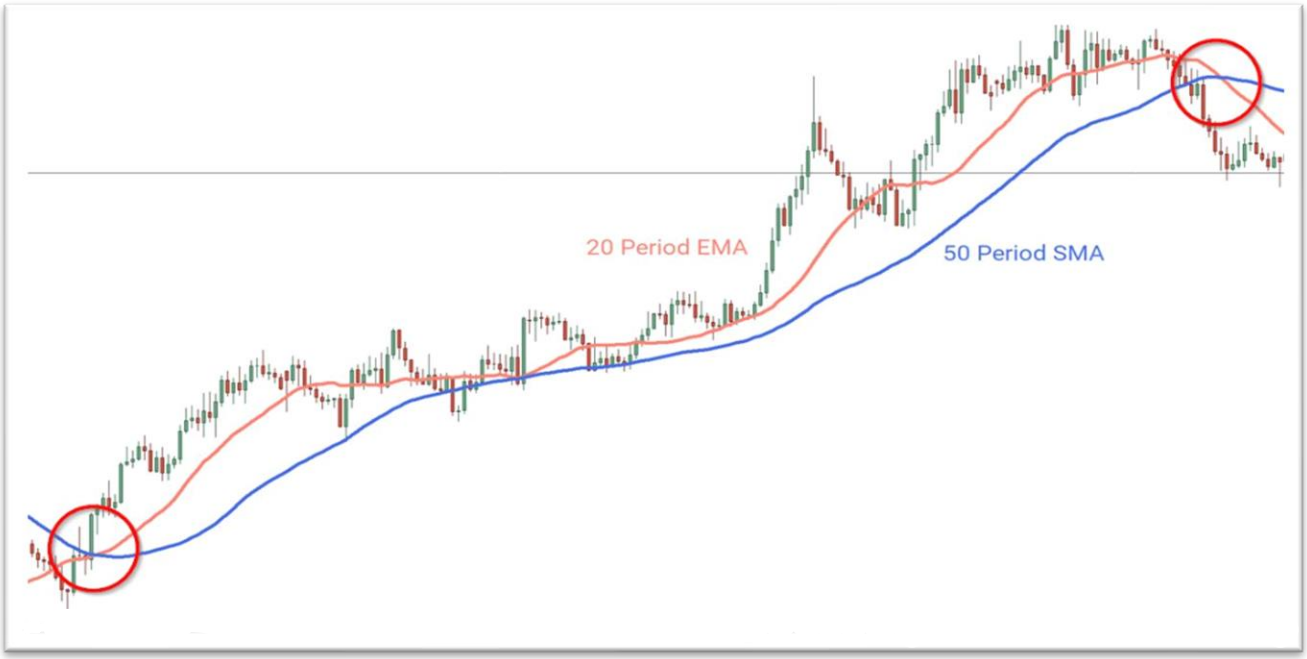


The rule of thumb for recognizing the direction of a trend when using two Moving Averages is that when the faster MA is above the slower MA that's a signal for an uptrend and when slower MA is above faster MA that is a downtrend.

6. Moving Average Crossovers

Another popular approach that you can also see in our article of 21 Most Popular Trading Strategies Every Serious Trader Should Learn To Succeed is called Moving Averages is MA crossovers.

A crossover is when two different MA lines cross over one another. This configuration can help you by giving you a warning that the current trend might be exhausting and near to its end, so there can be opportunities for a possible entry or exit. Most frequently when a MA crossover happens that means there will be a change in trend.



6.1. What is the best Moving Average Crossover combination?

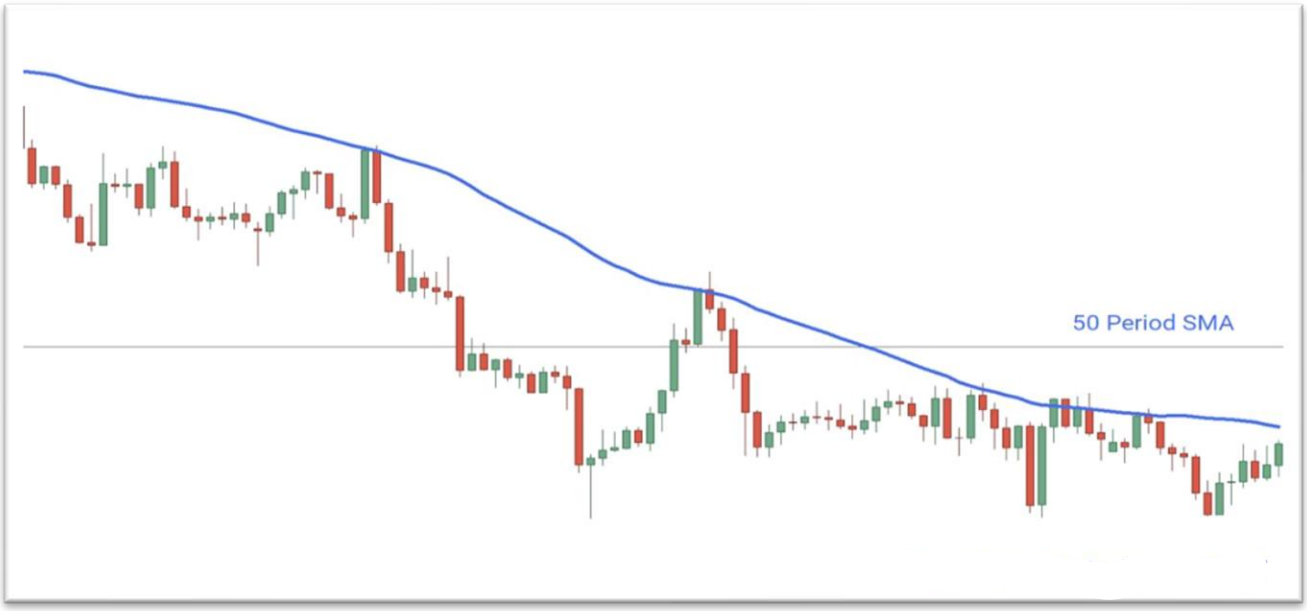
The 50 and 200-period Exponential Moving Averages are very popular among long-term traders. The situation where the 50-Day EMA crosses below the 200-Day EMA is so popular that it has its nickname – “Death Cross”. When traders see a Death Cross emerging, they are sure that this is a very bearish signal and expect the market to start going down. On the opposite when the 50-Day EMA crosses above the 200-Day EMA this is seen as a very strong bullish signal. This situation is popular as the “Golden Cross”.

The Golden Cross and the Death Cross have become so popular in the jargon of trading, that you will often notice them being mentioned on the financial news, articles, and analyses about forex pairs, stock markets, and commodities.

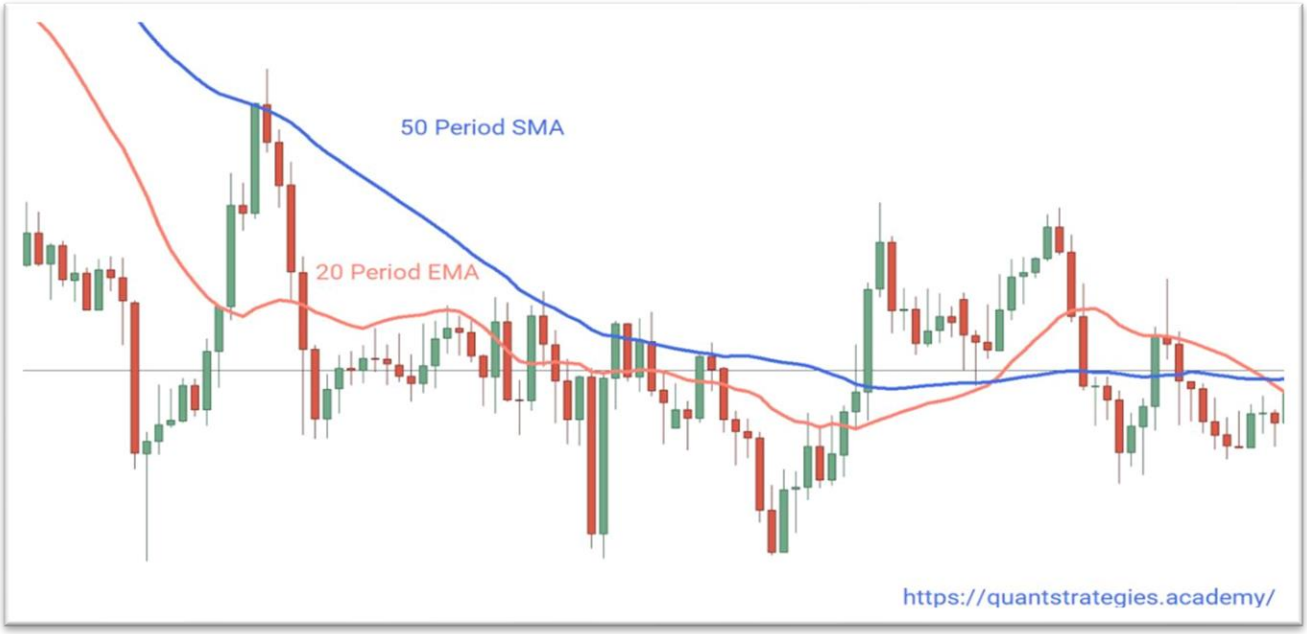
7. Moving Averages as Support and Resistance Levels

Another application of Moving Averages that is widely popular among traders is using them as dynamic support and resistance levels.

As you can see in the example below, the market price approached the Moving Average line several times, but it bounced back down because the line acted as a resistance level.



But the price will not always bounce off the MA so perfectly. Sometimes it will go through it looking like a breakout, but it will eventually go back in the end. To account for those cases some traders plot a second Moving Average and only buy or sell when the price is in “the zone” – which is the middle space between the two MAs.



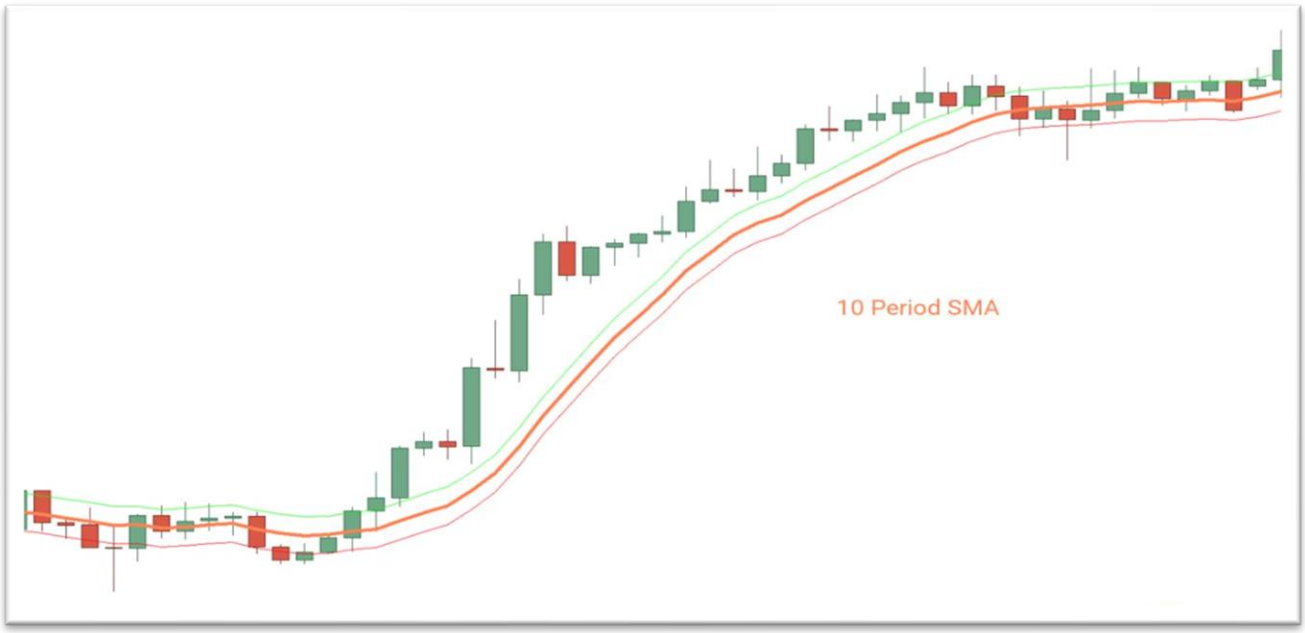
Every time price enters the zone it drops down. It is called “the zone” because it is a zone that acts as both a resistance and support level.

A strong breakout signal is when the price action holds above the Moving Average that acted as resistance earlier, the price tried to retrace, but tests the MA line and doesn’t go back below. In such cases, the MA becomes a strong support level.

8. Advanced Moving Average Trading Indicators

8.1. Moving Average Envelopes

Some traders use an upgraded trading indicator called Moving Average Envelopes to identify trend changes faster. MA envelopes consist of a central Moving Average line and two other MA parallel lines – one above and another below.



8.2. Using MA Envelopes to confirm a Trend

The MA envelopes strategy is used when you need a confirmation of a trend. For example, the price of the stock you are following is moving upwards. It goes above the typical Moving Average you are using, which gives you a buying signal. However, you are not confident that the trend is real, so you are looking for additional confirmation. That is where the MA envelope comes in. The upper and lower MA lines are calculated in a very simple way. You take you're the period of your original EMA or SMA and select a % value to use for your envelopes.

Upper envelope = 10daySMA + (10daySma x 0.01) and lower enveloper = 10daySMA – (10-day SMA x 0.01)

The envelope lines are parallel with the SMA and remain a constant 1% above and below the initial line.

Therefore, the way the confirmation of trends works with MA envelopes is that when the price is above the upper envelope you have a bullish signal and when the price is below the lower envelope you have a bearish signal.

To confirm the trend in either bullish or bearish direction, you must wait until the price has also closed above the upper or respectively below the lower envelope.

8.3. Using MA Envelopes to identify Overbought and Oversold Levels

Another application of MA envelopes is to identify overbought and oversold levels. There are times when the price will go above the upper envelope and then come back again (and vice versa). This scenario usually happens when there is no clear trend, and

the central Moving Average is close to flat. In these situations, MA envelopes can help with identifying overbought and oversold levels and serve as a mean-reversion indicator. When the market price goes close to the upper envelope you can prepare for a short position. In many cases the price touches or rises slightly above the upper envelope line then falls back below, reverting to the central Moving Average line. Respectively when the market price goes close to the lower envelope is you can prepare for a long position. Your buy signal is when the price touches or falls beneath the lower enveloper and then rises back above.

Therefore, you can use Moving Average envelopes both as a tool to confirm trend directions and to identify overbought and oversold levels.

8.4. Moving Average Ribbons

Another popular approach for using Moving Averages as trending indicators is in the trading system called MA ribbons. Moving Average ribbons uses a series of MAs of different time periods plotted on a chart. You can easily include MA ribbons in your trading. All you must do is pick several different periods MAs and plot them on a chart. Shorter time periods would make a more sensitive MA ribbon to slight price changes and longer periods (like 200 days) would make a less sensitive but smoother MA.

The way to read a trend on the MA ribbon is simple. When the MA ribbons are expanding it shows signals of a potential end to a trend, when the ribbons are contracting it is a sign of a possible change in trend, and when MA ribbons are parallel it signals a strong trend.

9. Summary

In conclusion, a Moving Average is a line on a chart that helps you distinguish price trends easier. The two most popular types of Moving Average are the Simple Moving Average (SMA) and Exponential Moving Average (EMA).

The SMA is smoother but it reacts slower to recent price action so it could cause a lag in buying/selling.

The EMA is quicker and shows recent price swings, but it is more likely to result in false breakouts and give you misleading signals in some situations.

Moving Averages are not only useful for finding trends. You can also use them as dynamic support and resistance levels that can give you signals for potential trading opportunities.

And finally, traders have developed advanced methods for using Moving Averages in systems like MA envelopes and MA ribbons to help them confirm trends and identify overbought and oversold levels.

We hope that this article of how to use Moving Average to successfully analyze market trends will be useful for you!