



Indicator MACD

In this article we will discuss about a widespread, well-known key element of technical analysis. Why do you think technical analysis especially some elements work so well for financial markets? Why do you think Fibonacci levels are usually strictly followed? Because thousands and billions of traders and computer programs for trading use these elements. This way everybody acts the same at the same time...

This is why we decided to present in the category of technical analysis, the most used and well-known methods of predicting financial evolution. These methods are easy to understand and are very efficient.

We will discuss about the MACD indicator. We will find out what MACD means is and how it is calculated. We will use it in our charts and we will see how it acts. We will discover how useful the MACD indicator is and, at the end, we will draw the conclusions. We will use the MACD indicator daily in our analyzing and trading system.

What is MACD?

Developed by Gerald Appel, Moving Average Convergence/Divergence (MACD) is one of the simplest and most reliable indicators available. MACD uses moving averages, which are lagging indicators, to include some trend-following characteristics. These lagging indicators are turned into a momentum oscillator by subtracting the longer moving average from the shorter moving average. The resulting plot forms a line that oscillates above and below zero, without any upper or lower limits. MACD is a centered oscillator and the guidelines for using centered oscillators apply.

1. How is it calculated?

The most popular formula for the "standard" MACD is the difference between a security's 26-day and 12-day Exponential Moving Averages (EMAs). This is the formula that is used in many popular technical analysis programs, and quoted in most technical analysis books on the subject. Appel and others have since tinkered with these original settings to come up with a MACD that is better suited for faster or slower securities. Using shorter moving averages will produce a quicker, more responsive indicator, while using longer moving averages will produce a slower indicator, less prone to whipsaws. For our purposes in this article, the traditional 12/26 MACD will be used for explanations. Later in the indicator series, we will address the use of different moving averages in calculating MACD.

Of the two moving averages that make up MACD, the 12-day EMA is the faster and the 26-day EMA is the slower. Closing prices are used to form the moving averages. Usually, a 9-day EMA of MACD is plotted along side to act as a trigger line. A bullish crossover occurs when MACD moves above its 9-day EMA, and a bearish crossover occurs



when MACD moves below its 9-day EMA. The histogram represents the difference between MACD and its 9-day EMA. The histogram is positive when MACD is above its 9-day EMA and negative when MACD is below its 9-day EMA.

MACD measures the difference between two Exponential Moving Averages (EMAs). A positive MACD indicates that the 12-day EMA is trading above the 26-day EMA. A negative MACD indicates that the 12-day EMA is trading below the 26-day EMA. If MACD is positive and rising, then the gap between the 12-day EMA and the 26-day EMA is widening. This indicates that the rate-of-change of the faster moving average is higher than the rate-of-change for the slower moving average. Positive momentum is increasing, indicating a bullish period for the price plot. If MACD is negative and declining further, then the negative gap between the faster moving average (blue) and the slower moving average (red) is expanding. Downward momentum is accelerating, indicating a bearish period of trading. MACD centerline crossovers occur when the faster moving average crosses the slower moving average.

2. Chart examples for Dow and e-mini S&P 500.

- a. In the next imagine we have the evolution between March and July 2006. After analyzing the histogram step by step, observing he histogram going below and above zero and correlating the new information with the ones about the trend lines we realize that we could have performed numerous positive transaction in this period. Analyze each setup...





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b. Another example is for the time period January – April 2005. we have the same setups and resembling profiles.



c. We have here 5 clear patterns to follow and make profit.





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3. Conclusions

1. Correctly used and followed, the MACD along other technical analysis and astrological analysis methods can offer complex and correct information for profitable transactions.
2. Trading methods based only on MACD can be found and can work very well. These methods can be harmoniously correlated with other methods of financial analysis resulting in a complete and complex trading system approaching financial reality.
3. We often use MACD amongst other various methods of analysis that we will describe later.

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