TradeMentor

Chapter 2.3

Technical Analysis: Technical Indicators

TECHNICAL ANALYSIS: TECHNICAL INDICATORS

Charts always have a story to tell. However, from time to time those charts may be speaking a language you do not understand and you may need some help from an interpreter. Technical indicators are the interpreters of the Forex market. They look at price information and translate it into simple, easy-to-read signals that can help you determine when to buy and when to sell a currency pair.

Technical indicators are based on mathematical equations that produce a value that is then plotted on your chart. For example, a moving average calculates the average price of a currency pair in the past and plots a point on your chart. As your currency chart moves forward, the moving average plots new points based on the updated price information it has. Ultimately, the moving average gives you a smooth indication of which direction the currency pair is moving.

Each technical indicator provides unique information. You will find you will naturally gravitate toward specific technical indicators based on your trading personality, but it is important to become familiar with all of the technical indicators at your disposal.

You should also be aware of the one weakness associated with technical indicators: Because technical indicators look at historical price data, they are not guaranteed toq know anything definite about the future.

Technical indicators are divided into the following categories:

-	Trending Indicators
-	Oscillating Indicators
-	Volume Indicators

TRENDING INDICATORS

Trending indicators, as their name suggests, identify and follow the trend of a currency pair. Forex traders make most of their money when currency pairs are trending. It is therefore crucial for you to be able to determine when a currency pair is trending and when it is consolidating. If you can enter your trades shortly after a trend begins and exit shortly after the trend ends, you will be quite successful.

Let's take a look at the following trending indicators:

-	Moving average
-	Bollinger bands

MOVING AVERAGE

Moving averages are the most basic trending indicator. They show you what direction a currency pair is going and where potential levels of support and resistance may be — moving averages themselves can serve as both support and resistance.

As we discuss moving averages, we will look at the following three topics:

-	How moving averages are constructed
-	Moving average trading signal
-	Strengths of moving averages

How a Moving Average is Constructed

Moving averages are constructed by finding the average closing price of a currency pair at any given time and then plotting these points on a price chart. The result gives you a smooth line that follows the price movement of the currency pair.

You can adjust the volatility of a moving average by adjusting the time frame the indicator looks at to obtain the average price. Moving averages that look at fewer time periods to determine an average are more volatile. Moving averages that look at more time periods to determine an average are less volatile.

MOVING AVERAGE TRADING SIGNAL

Moving averages provide useful trading signals for currency pairs that are trending.

Entry signal—when an up-trending currency pair bounces back up after hitting an up-trending moving average, or when a down-trending currency pair bounces back down after hitting a down-trending moving average.

Exit signal—when you enter a trade on an up-trending currency pair, set a stop loss below the moving average. As the moving average rises, move your stop loss up along with the moving average. If the currency pair ever breaks far enough below the moving average, your stop loss will take you out of your trade.

When you enter a trade on a down-trending currency pair, set a stop loss above the moving average. As the moving average falls, move your stop loss down along with the moving average. If the currency pair ever breaks far enough above the moving average, your stop loss will take you out of your trade.

Strengths of a Moving Average

Moving averages enjoy the following strengths:

-	They identify simple trends
-	They are flexible enough to work in both short-term and long-term time frames

BOLLINGER BANDS

Bollinger bands, created by John Bollinger, are a trending indicator that can show you not only what direction a currency pair is going but also how volatile the price movement of the currency pair is. Bollinger bands consist of two bands—an upper band and a lower band—and a moving average and are generally plotted on top of the price movement of a chart.

As we discuss Bollinger bands, we will look at the following three topics:

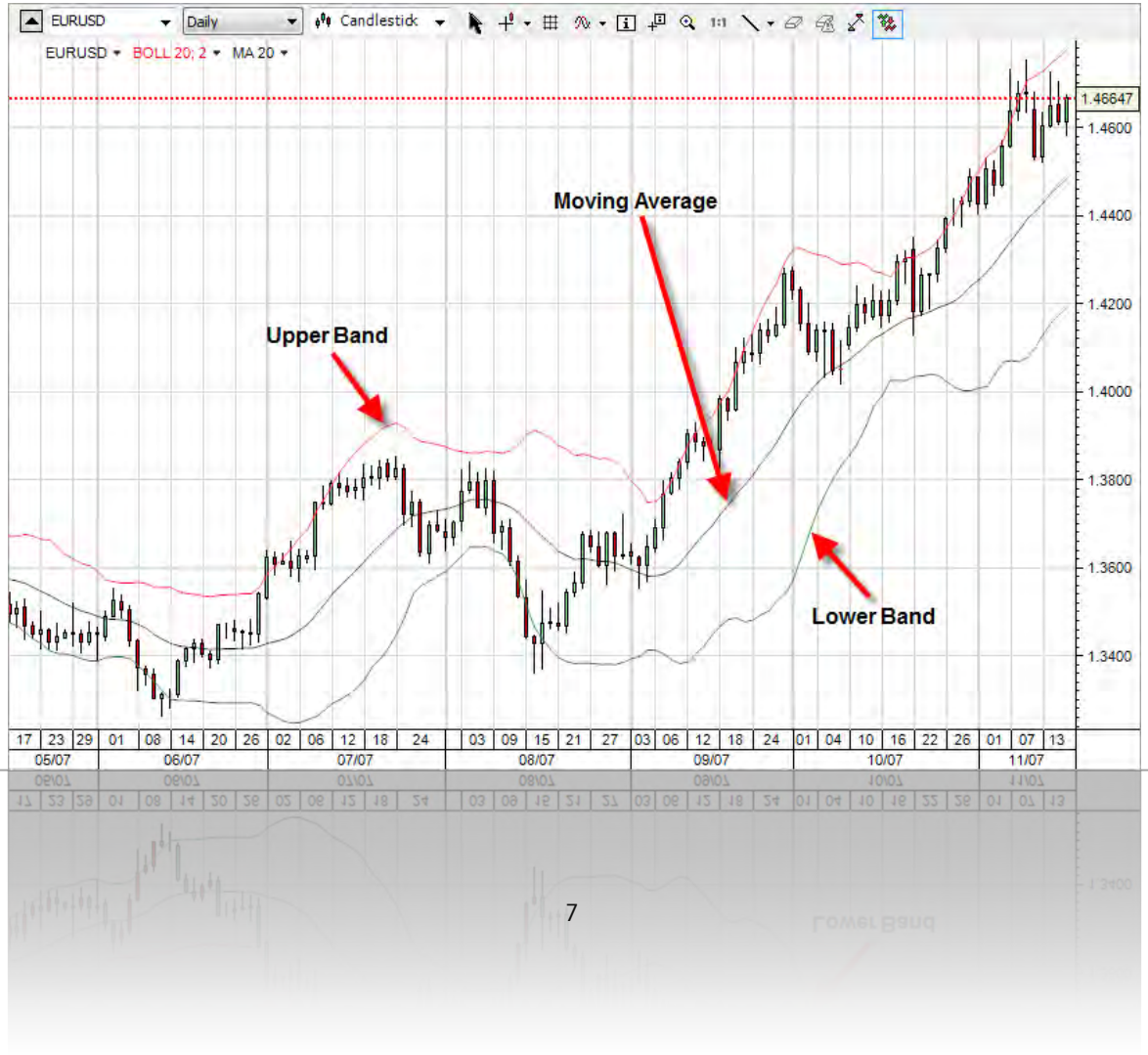
-	How Bollinger bands are constructed
-	Bollinger band trading signal
-	Strengths of Bollinger bands

How Bollinger Bands are Constructed

Bollinger bands are typically based on a 20-period moving average. This moving average runs through the middle of the two bands. The upper band is plotted two standard deviations above the 20-period moving average. The lower band is plotted two standard deviations below the 20-period moving average.

A standard deviation is a statistical term that measures how far various closing prices diverge from the average closing price. Therefore 20-period Bollinger bands tell you how wide, or volatile, the range of closing prices has been during the past 20 periods. The more volatile the currency pair, the wider the bands will be. The less volatile the currency pair, the narrower the bands will be.

CHART: MOVING AVERAGE



BOLLINGER BAND TRADING SIGNAL

Bollinger bands provide useful breakout signals for currency pairs that have been consolidating.

Entry signal—when the bands widen and begin moving in opposite directions after a period of consolidation, you can enter the trade in the direction the price was moving when the bands began to widen.

Exit signal—when the band narrows the price of the currency pair moved away from the breakout turns and starts moving back toward the current price of the currency pair, set a trailing stop loss to take you out of the trade if the trend reverses.

STRENGTHS OF BOLLINGER BANDS

Bollinger bands enjoy the following strengths:

-	They help you identify the trend
-	They identify current market volatility

OSCILLATING INDICATORS

Oscillating indicators, as their name suggests, are indicators that move back and forth as currency pairs rise and fall. Oscillating indicators can help you determine how strong the current trend of a currency pair is and when that trend is in danger of losing momentum and turning around.

When an oscillating indicator moves too high, the currency pair is considered to be overbought (too many people have bought the currency pair and there are not enough buyers left in the market to push the currency pair higher). This indicates the currency pair is at risk of losing momentum and turning around to move lower or sideways.

When an oscillating indicator moves too low, the currency pair is considered to be oversold (too many people have sold the currency pair and there are not enough sellers left in the market to push the currency pair lower). This indicates the currency pair is at risk of losing momentum and turning around to move higher or sideways.

Let's take a look at the following oscillating indicators:

-	Commodity channel index (CCI)
-	Moving average convergence divergence (MACD)
-	Slow stochastic
-	Relative strength index (RSI)

COMMODITY CHANNEL INDEX (CCI)

The commodity channel index (CCI) is an oscillating indicator developed by Donald Lambert that can show you how bullish or bearish traders are toward a currency pair and how dramatic those sentiments are. You can see the volatility of a currency pair with the CCI, much like you can with Bollinger bands.

The CCI is usually plotted below the price movement on a chart.

As we discuss the CCI, we will look at the following three topics:

-	How the CCI is constructed
-	CCI trading signal
-	Strengths of the CCI

How the Commodity Channel Index (CCI) is Constructed

The commodity channel index (CCI) is based on both the average value of past price movements and how far those price movements have strayed from the average—how volatile the price movements have been.

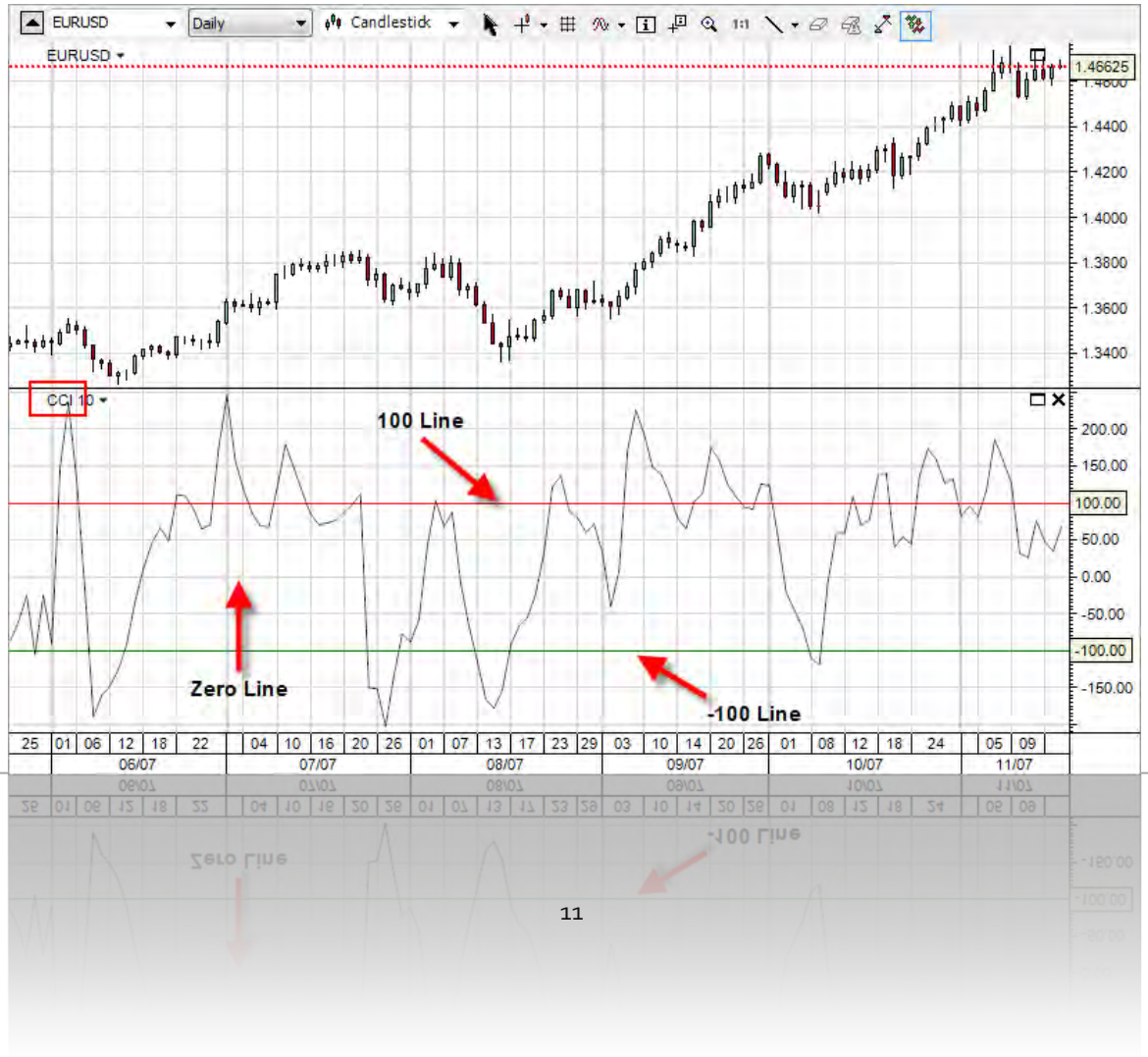
If the average price of the currency pair is moving higher, the CCI will also be moving higher. Just how quickly the CCI moves higher depends on how volatile the currency pair is. If it is more volatile, the CCI will move higher faster. If it is less volatile, the CCI will move higher slower.

If the average price of the currency pair is moving lower, the CCI will also be moving lower. Just how quickly the CCI moves lower depends on how

volatile the currency pair is. If it is more volatile, the CCI will move lower faster. If it is less volatile, the CCI will move lower slower.

The CCI moves back and forth, crossing 100, zero and -100 as it cycles through its progression.

CHART: CCI


EURUSD
Daily
Candlestick
EURUSD
1.46625
1.4400
1.4200
1.4000
1.3800
1.3600
1.3400
CCI 10
100 Line
200.00
150.00
100.00
50.00
0.00
-50.00
-100.00
-150.00
Zero Line
-100 Line
25 01 06 12 18 22 04 10 16 20 26 01 07 13 17 23 29 03 10 14 20 26 01 08 12 18 24 05 09
06/07
07/07
08/07
09/07
10/07
11/07

Commodity Channel Index (CCI) Trading Signal

The commodity channel index (CCI) produces trading signals as it crosses back and forth above and below both 100 and -100.

Entry signal—when the CCI rises above 100 and then turns around and crosses back below 100, you can sell the currency pair knowing that buyers have exhausted their momentum and the currency pair is likely to decline in the near future.

When the CCI falls below -100 and then turns around and crosses back above -100, you can buy the currency pair knowing that sellers have exhausted their momentum and the currency pair is likely to rise in the near future.

Exit signal—when the CCI turns around and starts moving higher after you have sold a currency pair, place your stop loss just above the nearest level of resistance. If the currency pair turns around and moves above resistance, your stop loss will take you out of the trade.

When the CCI turns around and starts moving lower after you have bought a currency pair, place your stop loss just below the nearest level of support. If the currency pair turns around and moves below support, your stop loss will take you out of the trade.

Strengths of the Commodity Channel Index (CCI)

The commodity channel index (CCI) enjoys the following strengths:

-	It helps you identify volatility in a currency pair
-	It helps you identify potential reversal points for a currency pair
-	It helps you confirm the strength of current trends

MOVING AVERAGE CONVERGENCE DIVERGENCE (MACD)

The moving average convergence divergence (MACD) is an oscillating indicator developed by Gerald Appel that can show you when trading

momentum changes from being bullish to bearish and from being bearish to bullish. The MACD can also show you when traders are becoming over-extended, which usually results in a trend reversal for the currency pair.

The MACD is usually plotted below the price movement on a chart.

As we discuss the MACD, we will look at the following three topics:

-	How the MACD is constructed
-	MACD trading signal
-	Strengths of the MACD

How the Moving Average Convergence Divergence (MACD) is Constructed

The moving average convergence divergence is constructed based on a series of moving averages and how they relate to one another. The standard MACD looks at the relationship between a currency pairs 12-period and 26-period exponential moving average. Specifically, the MACD looks at the distance between these two moving averages. If the 12-period moving average is above the 26-period moving average, the MACD line will be positive. If the 12-period moving average is below the 26-period moving average, the MACD line will be negative.

The MACD line is accompanied by a trigger line. This line is a 9-period exponential moving average of the MACD line.

CHART: MACD


EURUSD
Daily
Candlestick
EURUSD
1.46722
1.4600
1.4400
1.4200
1.4000
1.3800
1.3600
1.3400
MACD 26; 12; 9
MACD Line
Trigger Line
0.0140
0.0120
0.0100
0.0080
0.0060
0.0040
0.0020
0.0000
-0.0020
-0.0040
25 01 06 12 18 22 04 10 16 20 26 01 07 13 17 23 29 03 10 14 20 26 01 08 12 18 24 05 09
06/07
07/07
08/07
09/07
10/07
11/07

Moving Average Convergence Divergence (MACD) Trading Signal

The moving average convergence divergence (MACD) produces trading signals as it crosses back and forth above and below the trigger line.

Entry signal—when the MACD crosses above the trigger line, you can buy the currency pair knowing that momentum has shifted from being bearish to being bullish.

When the MACD crosses below the trigger line, you can sell the currency pair knowing that momentum has shifted from being bullish to being bearish.

Exit signal—when the MACD crosses back below the trigger line when you have bought the currency pair, you can sell the currency pair back knowing that momentum has shifted back from being bullish to being bearish.

When the MACD crosses back above the trigger line when you have sold the currency pair, you can buy the currency pair back knowing that momentum has shifted back from being bearish to being bullish.

Strengths of the Moving Average Convergence Divergence (MACD)

The moving average convergence divergence (MACD) enjoys the following strengths:

-	It helps you identify when the momentum of a currency pair changes
-	It helps you confirm the strength of current trends

SLOW STOCHASTIC

The slow stochastic is an oscillating indicator developed by George Lane that can show you when investor sentiment changes from being bullish to bearish and from being bearish to bullish. The slow stochastic can also show you when traders are becoming over-extended, which usually results in a trend reversal for the currency pair.

The slow stochastic is usually plotted below the price movement on a chart.

As we discuss the slow stochastic, we will look at the following three topics:

-	How the slow stochastic is constructed
-	Slow stochastic trading signal
-	Strengths of the slow stochastic

How the Slow Stochastic is Constructed

The slow stochastic consists of two lines—%K and %D—that oscillate in a range between 0 and 100. %K is constructed based on where the current closing price of a currency pair is in relation to the range of closing prices for that same currency in the past. %D is a moving average of %K.

If the closing price of the currency pair is near the top of the range of past closing prices, the %K line (followed by the %D line) will move higher.

If the closing price of the currency pair is near the bottom of the range of past closing prices, the %K line (followed by the %D line) will move lower.

For example, if the EUR/USD has closed in between 1.4200 and 1.4300 on each of the past 14 trading periods and it closes at 1.4295 (near the high of the range), %K will move toward the top of the indicator's range.

CHART: SLOW STOCHASTIC

Slow Stochastic Trading Signal

The slow stochastic produces trading signals as it crosses in and out of its upper and lower reversal zones. The upper reversal zone is the area of the indicator that is above 80. The lower reversal zone is the area of the indicator that is below 20. When %K is above 80, it shows the currency pair may be overbought and may be reversing trend shortly. When %K is below 20, it shows the currency pair may be oversold and may be reversing trend shortly.

Entry signal—when %K crosses from above 80 to below 80, you can sell the currency pair knowing that investor sentiment toward the currency pair has shifted from being bullish to being bearish.

When %K crosses from below 20 to above 20, you can buy the currency pair knowing that investor sentiment toward the currency pair has shifted from being bearish to being bullish.

Exit signal—when %K reverses direction after having crossed either above 20 or below 80 and crosses over %D, you can exit your trade knowing that investor sentiment is changing direction again.

Strengths of the Slow Stochastic

The slow stochastic enjoys the following strengths:

-	It helps you identify when investor sentiment toward a currency pair changes
-	It helps you confirm the strength of current trends

VOLUME INDICATORS

Since currencies are traded on the inter-bank market and not on a central exchange, volume data for currency transactions is not available. Without volume data, you cannot construct volume indicators. Therefore, we do not use volume indicators in Forex trading.

You will learn more about volume indicators as you diversify your investing into stocks, CFDs and futures.

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