

**PART ONE**

# Basic Training

**T**he goal for Part One is to develop a common language that you and I can use. The rest of the book will discuss how the technical indicators highlighted in the first two chapters work together to tell a story of what is happening in the foreign exchange (forex) market.

Currency charts use candles and technical indicators to communicate. It is important for you to have a strong understanding of these building block indicators that form the foundation of the trading methodologies discussed in this book.

To learn this language as you read this book, I highly recommend that you take the time to set up your charting package with these indicators and settings so you can practice the methodology. Members of FX Bootcamp have access to a template that makes this easy. Nonmembers will just have to invest a little more time, but it will be worth the effort. Read the book, study the concepts, practice on your demo account, and develop long-term positive trading skills.

In Part One you will learn:

- The difference between a simple moving average (SMA) and an exponential moving average (EMA).
- How to trade moving average crossovers.
- How to use the moving average convergence divergence (MACD) indicator.
- How to trade MACD divergence.
- How to use Bollinger Bands.

**6**

BASIC TRAINING

- How to trade volatility.
- How to spot a technical reversal.
- How to identify support and resistance (S&R).
- How to trade a break or bounce of S&R.
- How to trade S&R role reversals.
- How to use Fibonacci retracements.
- How to use Fibonacci extensions.
- How to use pivot points.

**CHAPTER 1****Lagging  
Indicators**

**M**ost technical indicators are lagging, which means they are slow. They tell you what just happened . . . after the fact. However, by combining historic price action with predictive price patterns, we'll have enough evidence to form the basis of a trade plan.

In this chapter, you will learn how to use technical analysis to read your charts. It is critically important to learn these concepts well. They are key to understanding the market's behavior. The technical indicators we'll discuss do not control the market, but they describe a story of how traders are trading it.

**MOVING AVERAGES**

A moving average (MA) is an average of a predetermined number of prices (such as closing price) calculated over a number of periods (such as 55 candles). The higher the number of candles in the average, the smoother the line is.

A moving average makes it easier to visualize price action without statistical noise. Instead of watching the up and down behavior of every candle, you are watching the relatively smooth moving average line. Moving averages are a common tool in technical analysis and they are used within all time frames: 1-minute, 5-minute, 15-minute, 30-minute, 60-minute, 120-minute, 240-minute, daily, weekly and monthly candle charts, for example.

It is important to observe that a moving average is a lagging rather than a leading indicator. Its signals occur *after* the new price movements, not before. Moving averages do not think ahead. They tell you what has

happened, not what will happen. Nonetheless, moving averages have a critical role to play in properly planning your trades in advance. The past does not always predict the future, but it sure likes to repeat itself.

### SMAs vs EMAs

There are two types of commonly used moving averages:

**1. SMA:** The simple moving average or arithmetic mean.

This moving average is only an average. Add up all the candles that you'd like to measure and then divide by the number of candles you added together. For example, a 21 SMA is calculated by adding the closing price of the last 21 candles and then dividing by 21. Simple, eh?

**2. EMA:** The exponential moving average.

The exponentially smoothed moving average takes into account more than just the previous price information of the underlying currency. It places more weight on the most recent previous candles. This makes it more sensitive to the most recent price action. For example, a 21 EMA places more weight on the last 5 candles than the first 5 candles.

The exponential moving average reacts to price changes more quickly than the simple moving average does because it pays more attention to newer candles.

I like moving averages a lot. You will see later in this book that at FX Bootcamp we use several different moving averages at once, but they offer different pieces of the puzzle when planning our trades. When the market is steadily rolling along, moving averages keep us in our trades, but if something changes, such as a moving average crossover, we'll likely get out or trade the new direction.

### Moving Average Crossovers

Moving averages are frequently used as price filters. To filter choppy price action into a more reliable indication for true price action, a short-term moving average has to cross a longer-term moving average.

The trade planning methodology we teach in the FX Bootcamp training sessions is to use several moving averages on the chart simultaneously. The most obvious use for multiple moving averages is to watch for crossovers to confirm new trends.

A crossover would consist of a short-term (21 candles) EMA that crosses a longer term EMA (55 candles). Short-term EMAs (fast) are more

sensitive to price changes because they are measuring fewer candles. Conversely, longer term EMAs (slow) tend to be more flat and are less likely to whipsaw up and down.

When moving averages do cross, you should take notice. If the fast EMA crosses below the slow EMA, it likely confirms new downward price action. If the fast EMA crosses above the slow EMA, it likely confirms new upward price action. However, such crosses should not prompt you to place a trade, as it often occurs too late and will put you in the market an unfavorable risk/reward ratio. The crossover should have been part of the trade plan that you created in advance, as not every crossover is the same. Moving average crossovers are great because they are easy to see and will attract traders, but they simply do not replace the work of planning your trades.

A simple use of moving averages is using them to gauge the speed and direction of the trend. If prices are held by the 21 EMA, the trend could be considered strong. If prices break the 21 EMA, you should become more cautious. This could be the sign of a reversal or a consolidating market. New rules will apply. We'll discuss this in more detail later in the book, as it is a key concept to trade planning.

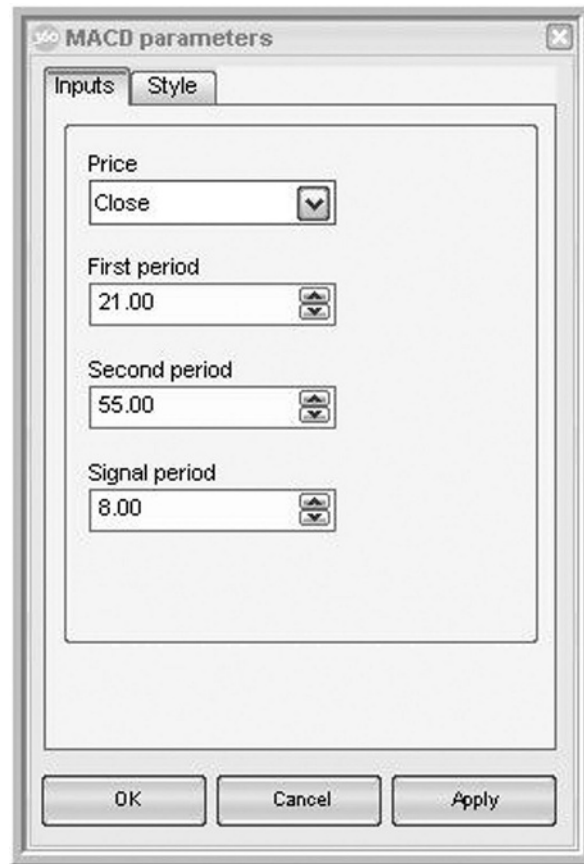
## **MOVING AVERAGE CONVERGENCE DIVERGENCE (MACD)**

Moving average convergence divergence, generally known as MACD (pronounced "mack dee") is one of the most reliable and simple indicators in our toolbox. MACD is a trend-following momentum indicator, or oscillator, which shows the relationship between two moving averages of recent prices. An example is shown in Figure 1.1.

The MACD is often made up of three components:

- 1. MACD Line:** The actual MACD line is calculated by subtracting a slow moving average (EMA) from a fast EMA. In our example we use the 21 as the fast EMA and the 55 as the slow EMA.
- 2. Signal Line:** The signal line represents an EMA, not of price, but of the MACD. In this case we calculate the EMA of our MACD for the last eight bars.
- 3. Histogram:** The MACD histogram is the difference between the MACD and its signal line.

MACD just might be the most popular indicator used by forex traders. That is why we recommend that you use it. However, be aware that MACD



**FIGURE 1.1** Moving Average Convergence Divergence (MACD)

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is often misused. Like any other technical indicator, you cannot rely on it for trades. It should be part of your entire trading planning process.

### **How to Use MACD**

There are three common scenarios to watch for:

- 1. Crossovers:** When the MACD falls below the signal line it is a bearish signal, and indicates that it may be time to sell. Conversely, when the MACD rises above the signal line, the indicator gives a bullish signal, and suggests that it may be time to buy.
- 2. Divergence:** When the price diverges from the MACD, it signals the end of the current trend. When the price is rising and MACD is falling (negative divergence), or vice versa, it can be considered an indication of something going on and can be used to predict changes in a trend. That's right, the lagging indicator that is supposed to follow the price is predicting future behavior.
- 3. Dramatic Expansion:** When the MACD expands dramatically—that is, the shorter moving average pulls away from the longer term moving average—it is a signal that the currency is overbought/oversold and may soon return to normal levels.

Once again, let me be perfectly clear. All three of these scenarios are important and should not be overlooked. However, none of them are signals to trade. They are opportunities to form trade plans based on likely outcomes commonly generated by such situations.

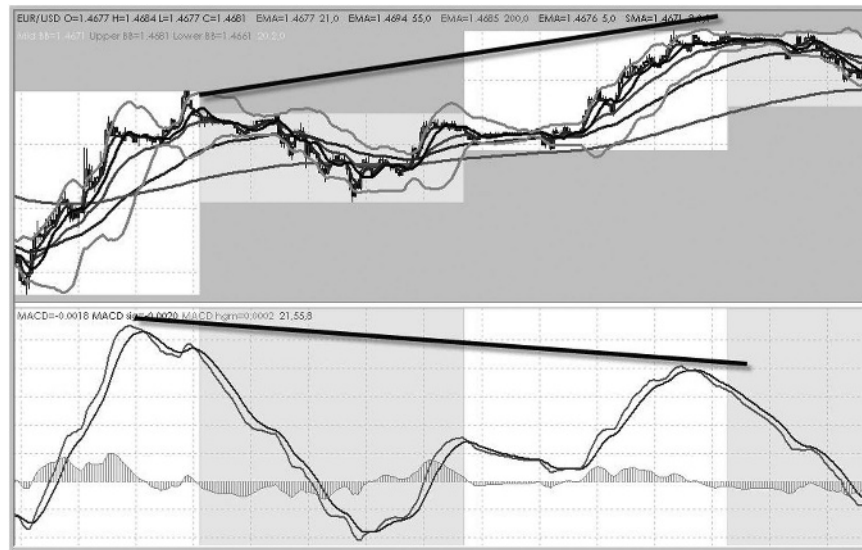
For example, MACD divergence is tradable only when confirmed by other indicators. It does not always yield profitable trade opportunities. Therefore, if you traded every MACD divergence, just like if you traded every moving average crossover, you would certainly lose money.

However, when planned in advance and confirmed with other technical indicators, success is much more likely. This is because several things are happening at once and each is attracting the same bulls or bears into the trade you are planning.

### **MACD Divergence**

MACD crossovers and dramatic rises are easy to spot. However, spotting MACD divergence takes a little practice. Figure 1.2 shows some examples of charts that display MACD divergence signals.

What does this divergence mean? Just that the current price trend is running out of steam. In this case, you'd create trade plans based on



**FIGURE 1.2** Examples of MACD Divergence

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reversal patterns, moving average crossovers, or other indications to consider a trade in the opposite direction. It may not happen right away, but MACD divergence can be a powerful hint that the market is changing.

What you are looking for is when price action and MACD do not agree. For example, if price is making a series of higher highs and MACD is making a series of lower highs, something between the two is out of sync.

I see MACD divergence as a sign that fewer and fewer traders are in the trend. No one is trading against the trend—yet, but fewer and fewer traders are in the trend. I'd guess that traders are getting nervous and slowly fading out of their trades.

When the only traders in a trade are nervous, they are likely to exit their trade at the first sign of trouble. So if MACD is diverging from a bullish trend, as soon as the bears muster up enough guts to short, the bulls will exit and the bears will take control. This is exactly why MACD divergence can be so powerful. When it works, it often works well, but it takes time to set up.

There are two powerful keys in locating possible times where divergence is likely to represent a reversal in price.

- 1. Support and Resistance:** MACD divergence can be powerful when price is at double tops or double bottoms. Just as you are creating a

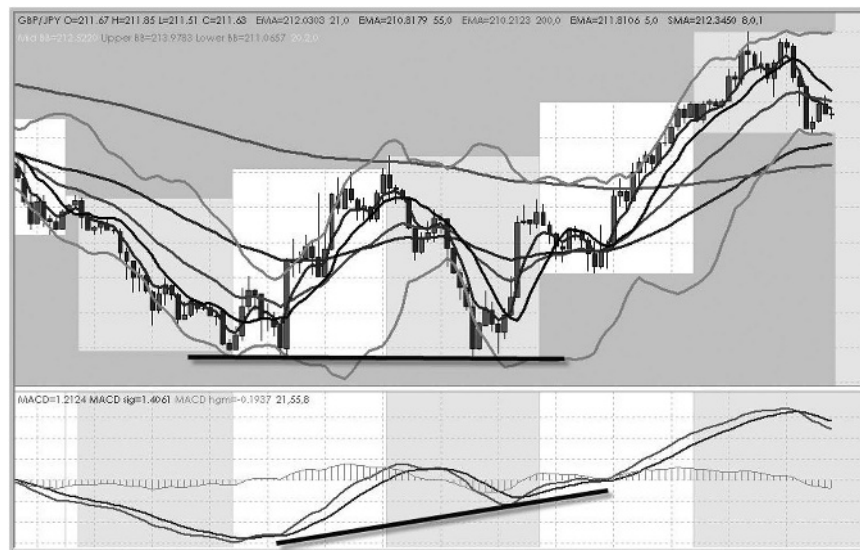


trade plan based on a bounce or break of S&R, you spot MACD divergence, which is a sign that current price action is running out of steam. This would indicate that there are not enough committed traders to break S&R, so perhaps you should focus your trade plan on a rejection reversal. See Figure 1.3.

- 2. Exhaustion Pullback:** The second is when an oscillator, an overbought/oversold indicator, has reached its overbought/oversold range and is turning back down to normal. You may often see the MACD lines extremely overbought or oversold. This is *not* a reason to trade. In fact, it indicates signs of strength.

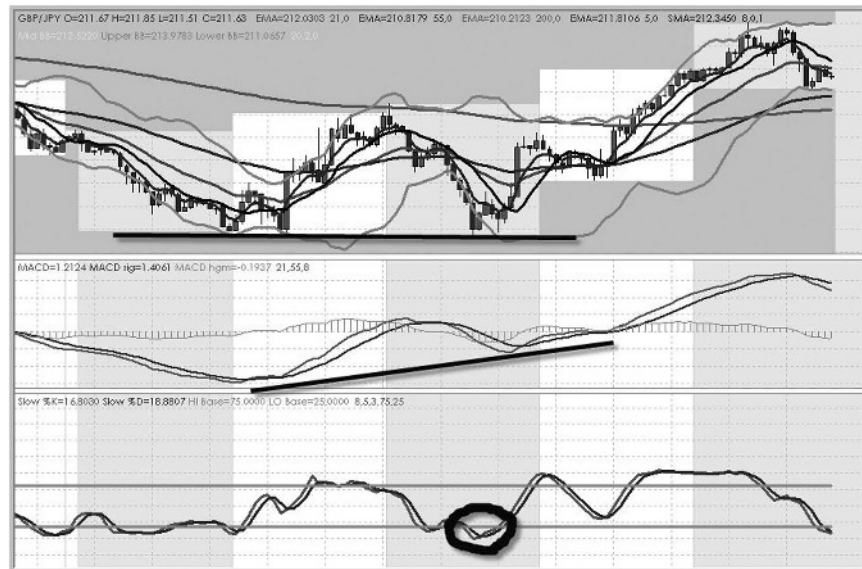
Remember this: “Of course it’s overbought; everyone is buying!” Don’t confuse the overbought or oversold MACD zones as trade opportunities. However, when *price* reaches its extreme, where it’s gone too far too fast, you will see price exhaust and the MACD lines drop back into the normal zone. This is often a better signal. See Figure 1.4.

Combining an exhaustion MACD pullback with MACD divergence at a double top, you would have a second cross of the MACD and an opportunity to trade.



**FIGURE 1.3** MACD Divergence Trending Up

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**FIGURE 1.4** MACD Divergence with Stochastic Trigger

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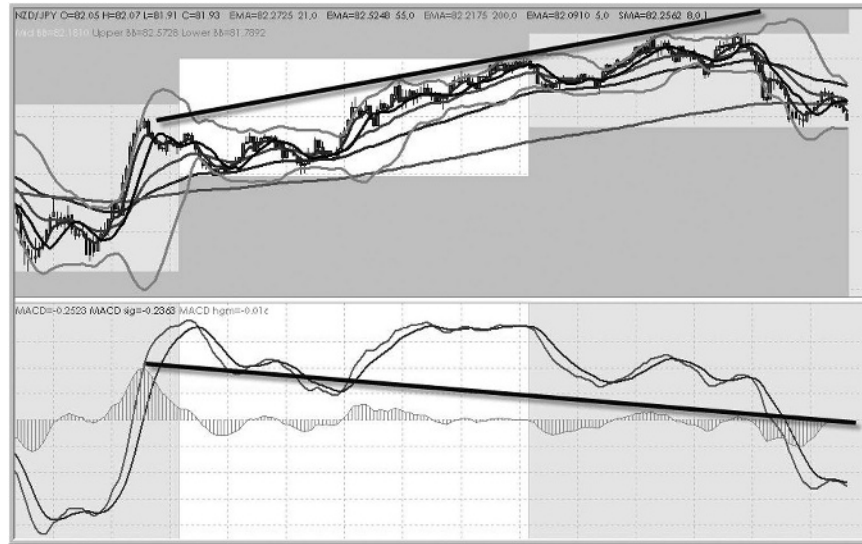
Those two situations, along with your other tools can provide excellent trading opportunities. It is also important to note that divergence can be found not only on the MACD line and signal line as was demonstrated in the previous examples, but it can also be found on the histogram, as shown in Figure 1.5.

## BOLLINGER BANDS

As forex traders, we rely on market volatility as a means to profit. We want to see changes in a currency pair's price. When the market produces a consistent, repeatable move up or down, we want to earn pips from that change in price level.

Volatility is the relative rate at which the price of a currency pair moves up and down. In other words, it's the amount of price change over a period of time. If price moves up and down rapidly over short time periods, the market has high volatility. If the price changes very little, the market is exhibiting low volatility.

As you've probably noticed, if you've stared at your charts long enough, the forex market tends to find itself in one of two basic conditions: range



**FIGURE 1.5** Divergence in a MACD Histogram

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bound or trending. By some estimates, the market is actually range bound about 70 to 80 percent of the time. In this scenario, the bulls and bears are in a battle that neither side is really winning or losing.

Price action is back and forth, back and forth—much like a tennis match. While in a range, the market establishes a fairly consistent level of volatility. When price is trapped in this range-bound condition, we'd like to have an idea of where it is likely to reverse from up to down (or vice versa).

Eventually, volatility kicks in and the market deviates from its range-bound state.

Think  $\text{DEVIATION} = \text{TREND}$ .

Price is deviating from the current norm—trending beyond its recent established range. When such a break occurs, we'd like to have some sort of early-warning indication that the move above or below the recent range is a significant deviation from the norm.

### Volatility Indicator

The Bollinger Bands (BB) indicator was first introduced in the 1980s by John Bollinger, a longtime technician of the market. These bands,

calculated based on standard statistical theory, estimate the probable high and low price of a currency pair, given the market's recent level of volatility. The bands are drawn at equal distances above and below a simple moving average.

Think of Bollinger Bands as an envelope indicator, projecting top and bottom lines around price. The bands act like mini support and resistance levels. The longer the time frame you are in, the stronger these bands are.

These bands are self-adjusting. When the market becomes more volatile, the Bollinger Bands expand or open up and move in opposite directions from each other. Whenever price enters a tight trading pattern, the bands respond by contracting or moving closer together. In a range-bound market, the bands are usually parallel to each another.

To better understand the story told by Bollinger Bands, consider a seismometer used to measure the seismic waves generated by movements in plates under the earth's surface. The seismograph's pen makes waves on a paper chart. The waves drawn vary in size relative to the size of the earth's "quake."

When the earth's surface is calm, the seismograph draws small waves within a tight range, and the width of this range is relatively small—much like the narrow and parallel Bollinger Bands during a range-bound market.

When an earthquake strikes, the ground shakes, and wide curves of varying size are drawn on the chart reminiscent of the widening Bollinger Bands one sees during a fast-trending market.

### How to Use Bollinger Bands

There are three different ways you can set up trades with Bollinger Bands:

- 1. Range Trading:** When these envelope lines, or bands, are parallel to each other, they can be used to predict levels at which to enter or exit a trade. The Bollinger Bands have identified a range within which you can consider trading.

As a general rule, when price reaches the upper band, the market is considered to be overbought. When price touches the lower band it is considered to be oversold. However, a touch of the upper Bollinger Band is not in and of itself a sell signal, and a touch of the lower Bollinger Band is not in and of itself a buy signal. Remember, you're seeking opportunities to profit not opportunities to trade!

In other words, do not predict a support or resistance level based solely on a Bollinger Band. Instead, wait for price to bounce first, and seek confirmation from other indicators before entering a trade. You may create a reversal trade plan at extreme Bollinger levels, but like any trade plan, you'll need confirmation before execution of the plan.

After entering a trade following a reversal, you can place your stop on the other side of the Bollinger Band.

- 2. Breakout Trading:** When prices break above or below the upper or lower band, it is an indication that a breakout and trend is about to develop. To filter out false breaks, we recommend seeking confirmation of the move using a momentum indicator, such as a 5 EMA/8 SMA cross or a stochastic cross.

If the move is a break above resistance and to the upside, you're seeking to enter a long trade while price walks up the upper Bollinger Band. If the move is a break below support and to the downside, you'd like to enter a short trade while price walks down the lower band. In either case (going long or short), your exit would be determined a limit order or a moving average cross.

- 3. Tunnel Trading:** When you see that Bollinger Bands have become tight and narrow, watch for a breakout to occur in the near future. The longer and more narrow the tight Bollinger Bands, the greater the breakout will likely be. It's predictive, so pay attention. Also, this is only true when the market is moving, such as 5 A.M. to 5 P.M. London time. Tunnels during the odd hours of forex simply show you that no one is trading at all, and a breakout is not likely to happen until they return to their charts.

Some traders refer to this scenario as a "Bollinger Band Squeeze." When the breakout occurs, a new trend, or deviation, is started and the Bollinger Bands begin to spread further apart. This is an excellent clue to plan a trade around. If the plan is successful, you have a nice Bollinger Band breakout trade, and you'll be walking the bands into profit.

### **Bollinger Band Settings**

Figure 1.6 shows the settings for the Bollinger Bands we display on the charts displayed during the live coaching sessions at FX Bootcamp.

The default setup on your trading platform for Bollinger Bands is likely 20 periods and 2 standard deviations and one we've found to work effectively on forex charts.

### **Omission of the Middle Bollinger Band**

Why do we remove the Middle Bollinger Band from the charts we display during FX Bootcamp sessions?

We like to keep things as simple as possible in Bootcamp, and that goes for the number of lines on our charts as well. Each Currency Coach



**FIGURE 1.6** Bollinger Bands

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already uses several other moving averages, so we've chosen to omit the middle band. The middle BB is actually the 20 SMA, similar to the 21 EMA already shown on our standard chart template.

### **Calculating the Bands**

This is the simple formula for this volatility indicator:

$$\text{Upper BB} = 20 \text{ SMA} + 2 \times (\text{standard deviation})$$

$$\text{Lower BB} = 20 \text{ SMA} - 2 \times (\text{standard deviation})$$

### **STANDARD DEVIATION**

Standard deviation is a measure of the spread of a set of numbers. More specifically, it measures how widely data values (in the case of forex charts we are measuring recent closing prices) are dispersed from the average of those values.

The larger the difference between the closing price and the average price, the higher the standard deviation and volatility of the currency pair. The closer the closing prices are to the average price, the lower the standard deviation or volatility of the currency pair.

According to statistical theory, when the market is in a range-bound condition, roughly 95 percent of recent closing prices are contained within two standard deviations of the moving average.

Think about this concept in simple real-world terms. Consider a market that is range bound and price pops above the upper Bollinger Band. Price does not belong there; it is out of its element. Under these ranging conditions, price will fall back within the standard deviation 95 percent of the time. Not an ideal time to go long.

### **SUMMARY**

The indicators in this chapter are visual representations of various mathematical studies of price and time. MACD is nothing like stochastics. Bollinger Bands don't have much in common with EMAs. However, they all have one thing in common: They are all lagging indicators. They study what happened in the past. Therefore, they are slow and do not tell you

what is happening right now, and they certainly do not tell you what will happen in the future.

Wouldn't it be nice to have a crystal ball indicator that could predict the future? It's every trader's dream. Well, here's your dream come true! In Chapter 2, I will review three leading indicators that help predict the future: support/resistance, Fibonacci retracements/extensions, and pivot points.