

This Tool Travels The Charts

Trading The Forex Wave

Chart patterns are powerful tools and it is important to identify them by finding their building blocks. Here's how.



Only after I embraced market cycles did I truly begin to understand what to do with all the lines and levels I had learned to draw on my charts. Early on, as I began teaching myself to trade in the late 1980s to early 1990s, there were few books available about technical analysis. I found myself gravitating toward price (instead of news) because my mother was a bit of a market timer (although not trained nor aware that she was indeed using market timing).

CHARTS, CHARTS, CHARTS

Price and price action made sense to me, and so I ventured into charting armed with my father's old engineering graph paper, drawing my own charts based on the closing price I would get from my commodity futures broker. It was also during this time I went to college and discovered the books that ended up shaping my view of the markets. Books by chartists Richard Schabacker and Richard Wyckoff were like the light I was searching for in my quest to become a trader. What is interesting about those books was that they were written in the early 1900s but are still as true and applicable today as anything current on my bookshelf.

The other pivotal moment in my trading was the introduction of market cycles to my chart analysis. My bread and butter trades are momentum trades. My definition of this is an entry style based on entering a market as it breaks out or breaks down from a sideways market. Sideways markets are cycles

of congestion or consolidation. Congestion is typically a wider-ranging sideways market with higher volatility and a little more erratic support and resistance levels as compared to consolidation. Consolidation is a narrower sideways market with firm support and resistance levels, in that the levels have little variance between the highs that make up resistance and the lows that make up support.

It is during these sideways markets that two of my favorite patterns for momentum trading develop: triangles and rectangles. Both patterns were born of the fact that they were initially referring to the stock market, where there is a buy-side bias. So consolidation is that low-volume, quiet channel where a stock is typically bought with little notice. Congestion typically follows an uptrend and is an interesting mix of selling muddled with latecomers to the uptrend who are buying. Since there is not enough interest and money chasing the market higher, however, the market levels off into a wider range, compared to the accumulation cycle. When talking about markets such as commodity futures and foreign exchange, this is not as apparent, especially in the forex market, where the buy-side bias is not as prevalent.

PATTERN POWER

As the visual embodiment of price action, chart patterns are powerful tools. Early on, I memorized the criteria as well as nuances of chart patterns like triangles, rectangles, wedges, flags, head & shoulders, and rounded tops/bottoms. I scanned charts for hours looking for these gems. Back then, that meant flipping through large, printed, daily charts that were mailed to my home once a week. With pen and ruler in hand, I would draw the lines of the patterns I was familiar with. Those were great days—and long days. Starting something new is always exciting, and discovering charting patterns only to see that my analysis was (mostly) right was a thrill. But I still

by Raghee Horner



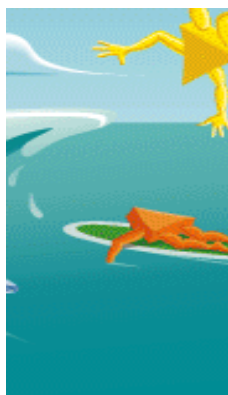
KEN SMITH

wanted to know what went wrong on those patterns that whipsawed† me.

Before entering any market, it is vital that a trader (or investor) know the market cycle that a chart is in. Markets travel in one of four market cycles at any time:

- Accumulation (consolidation)
- Distribution (congestion)
- Mark up (uptrend), or
- Mark down (downtrend).

The next challenge that every chartist faces is how to determine the market cycle that a chart is in.



THE WAVE

When we look back at price, it's easy to see what's happened. The

key to charting analysis is being able to determine when a market is trending or heading sideways. I do this quickly and easily with a tool I refer to as the "Wave," which is made up of three individual 34-period exponential moving averages (EMAs)—one on the high, one on the low, and one on the low. These three EMAs create a wave that travels across the chart, and by looking in the direction in which the lines are traveling, I can determine if there is a trend and how strong it is. More important, the Wave tells me when there is no trend at all, which is when I set up a momentum trade.

The 60-minute chart of the British pound in Figure 1 has a flat, sideways Wave. This gets my attention because now I will look to draw trendlines and support & resistance levels, and determine if there is a chart pattern. I will only use congestion and consolidation patterns like triangles (symmetrical and asymmetrical) and rectangles in the sideways market cycles that I have identified using the sideways Wave. This is a key component to using chart patterns. Congestion and consolidation patterns should only be used in sideways markets.

It is important to identify chart patterns by finding the building blocks of the pattern, but I realized I don't want to enter trades by searching for specific patterns like triangles or head & shoulders. After all, what is a symmetrical triangle but the convergence of an uptrend and downtrend? No matter the head & shoulders' location, inverse or otherwise, what is a neckline but support or resistance? Once all the trendlines and support & resistance levels are drawn, only then can I look for patterns whose lines and levels may have formed.

This is a very different approach compared to looking for a specific pattern. Look hard enough at the clouds and you'll see a bunny; look hard enough at the charts with a specific pattern in mind and the pattern will appear.

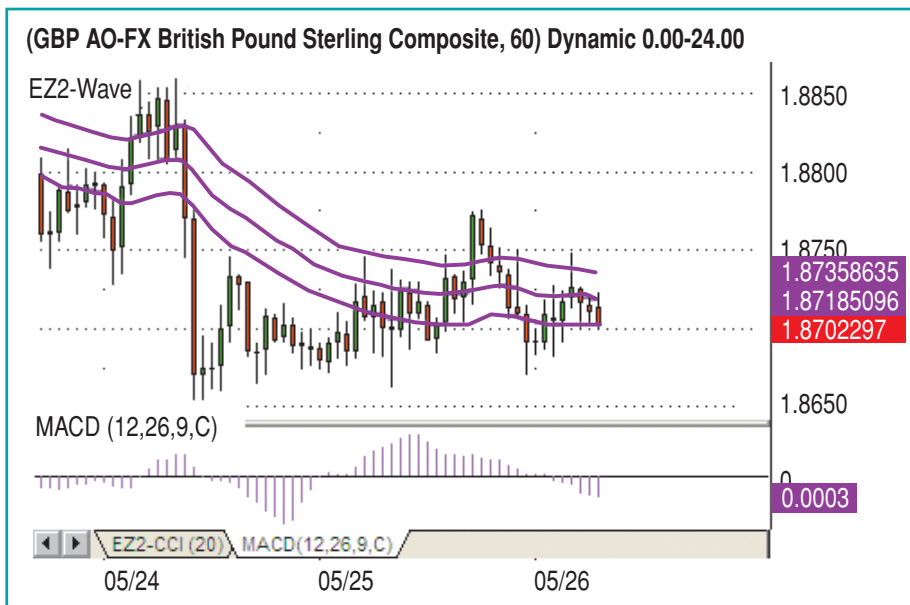


FIGURE 1: FLAT, SIDWAYS WAVE. When such a situation arises, it's best to look for patterns that work well during sideways markets.

EXPONENTIAL MOVING AVERAGES

Defining exponentially smoothed moving averages—which, for most traders, would be a series of closing prices—is simply another form of a moving average. An exponentially smoothed moving average utilizes a smoothing constant (α) that approximates the number of days for a simple moving average. This constant is multiplied times the difference between today's closing price and yesterday's moving average value. This new value is then added to yesterday's moving average value:

$$EMA_{today} = EMA_{yesterday} + \alpha(P_{today} - EMA_{yesterday})$$

The actual formula that is mathematically reduced for a geometrically (exponentially) weighted moving average is:

Exponential Moving Average—The EMA for day D is calculated as: $EMA_D = \alpha PR_D + (1-\alpha)EMA_D - 1$

where PR is the price on day D and α (alpha) is a smoothing constant (0-1). Alpha may be estimated as $2/(n+1)$, where n is the simple moving average length.

The α constant approximates for a simple moving average. Its value is determined by the formula $2/(n+1)$ where n is the number of days for a simple moving average. An approximation for a 10-day moving average would use an $\alpha = 2/(10+1) = 0.18$.

—Thom Hartle

REFERENCES

- Granger, C.W.J., and Paul Newbold [1986]. *Forecasting Economic Time Series*, 2d ed., Academic Press.
- Hutson, Jack K. [1984]. "Filter Price Data: Moving Averages Vs. Exponential Moving Averages," *Technical Analysis of STOCKS & COMMODITIES*, Volume 2: May/June.

TRIANGLES

Only after drawing the lines and levels on the chart can I see that a triangle pattern (Figure 2) has formed, and the triangle is the kind of pattern I like to see when setting up momentum trades. Without this pattern, there would be no way to mark and measure the potential breakout or breakdown. This pattern—along with the sideways Wave—offers me a momentum setup on this 60-minute chart of the pound. In a momentum setup, I don't carry a bias as to which side prices may break. There is no trend, and as a momentum trader, I am waiting for the momentum to reveal itself.

I do, however, use a confirmation indicator, the moving average convergence/divergence (MACD) histogram. This al-

lows me to confirm a move after the price breaks through either the support or resistance level. So when prices finally broke through the support of multiple uptrend lines as well as support levels (Figure 3), all I had to do was acknowledge the price trigger of the short and glance at the MACD histogram reading. I use the MACD histogram in an “on/off” fashion so in this scenario, the MACD histogram simply has to be negative or below the zero line.

While the MACD histogram is not much below the zero line, in the on/off way I use it the histogram is negative so the trade is confirmed. As prices break through the bottom of the triangle chart pattern, support is giving way. In this case, support is an uptrend line, and that line is half of what makes up this triangle pattern.

One of the challenges of trading support & resistance levels and chart patterns is how to confirm that the pattern has indicated an entry. It is not the pattern's

The triangle is the kind of pattern I like to see when setting up momentum trades.

job to confirm, only to trigger. Because I use the MACD histogram to confirm that the pattern has been pierced, I do not have to wait for the candle to close, thus optimizing the chart pattern-based momentum entry.

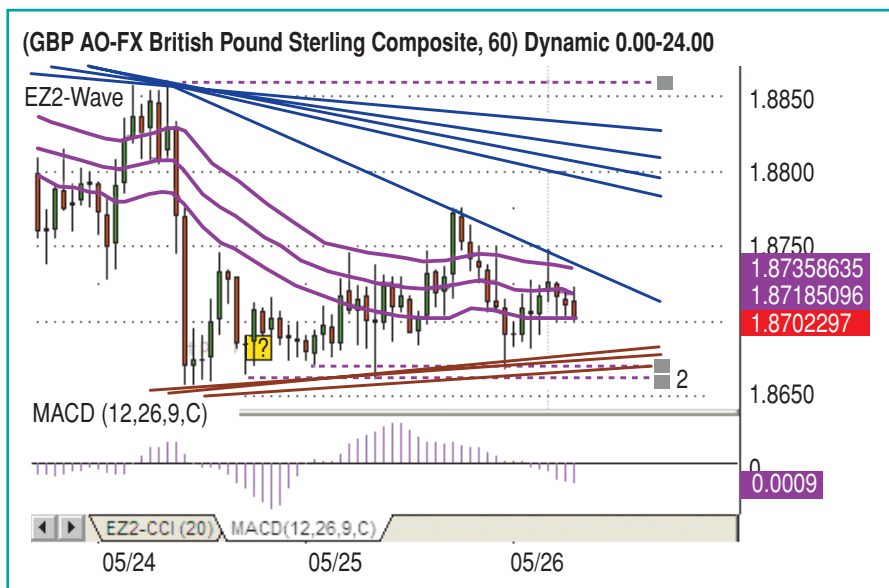


FIGURE 2: TRIANGLE PATTERNS. After drawing trendlines and support and resistance levels, a triangle pattern emerged. This is an ideal pattern on which to base a momentum trade.

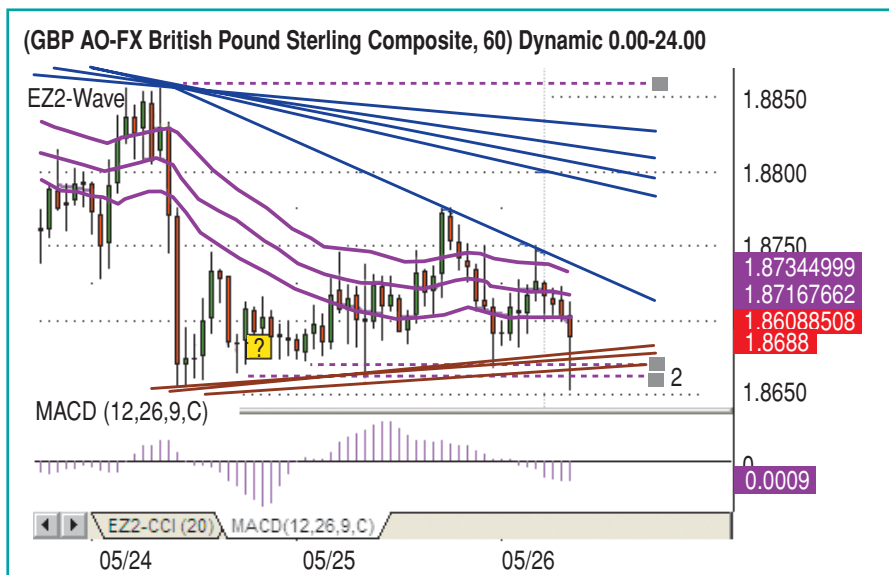


FIGURE 3: A CONFIRMATION INDICATOR. Here, the MACD is used as a confirmation indicator. When prices pierced through the support level, the MACD slid into negative territory, enough of a sign to enter a short position.

TRADING THE WAVE

The follow-through from a triangle pattern with a sideways Wave is usually swift (Figure 4), as momentum trading is like getting on the base of a trend. As a market cycles from trending to sideways to trending again, a sideways market typically precedes a trend, and thus, if the momentum persists in an organized way, the Wave will also shift from the sideways direction and angle upward or downward, signaling a shift away from the balance of an accumulation or distribution cycle to a trend. Momentum trades can be effectively traded by:

- 1 Identifying a chart with a flat Wave.
- 2 Drawing all the uptrends, downtrends, support, and resistance lines that are on the chart and see if a congestion or consolidation pattern has formed. (The only time you really need to spend time draw-

ing the lines and levels on a chart is when you see a sideways Wave.)

- 3 Waiting for the price trigger. This means that you will wait for prices to pierce the support or resistance levels of the chart pattern, and only then go to step 4.
- 4 Checking the MACD histogram for confirmation of the price break direction.

The positions will be exited based on significant support or resistance levels. The method is similar to setting up a trade in which you determine when a trade is no longer valid and then identify the support or resistance levels from which to place stop-losses.

Raghee Horner is a trader, teacher, and author, with more than 15 years' experience in the markets. She produces daily commentary for TradeDirectFX.com, offers analysis about the forex market for eSignal, and is a frequent speaker at the Forex Trader Expo.

SUGGESTED READING

- Gopalakrishnan, Jayanthi [2006]. "How Does The Forex Market Work? Raghee Horner," interview, *Technical Analysis of STOCKS & COMMODITIES*, Volume 24: April.
- Schabaker, Richard W., and Donald R. Mack [1997]. *Technical Analysis And Stock Market Profits: A Course In Forecasting*, Financial Times Prentice Hall, reprint.

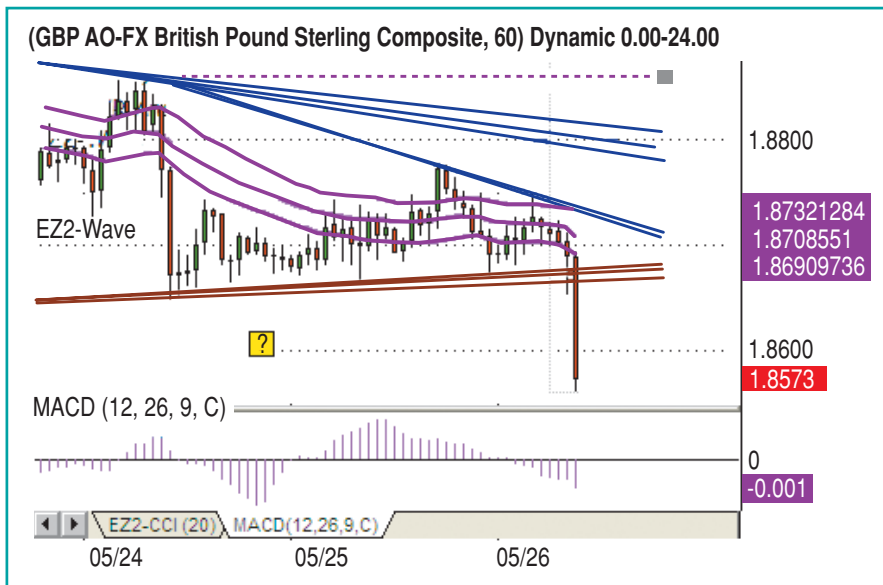


FIGURE 4: THE FOLLOW-THROUGH. You can see that the follow-through was quick. Thus, it's important to enter the trade as soon as the indication is given to do so.

Wyckoff, Richard D. [1997]. *How I Trade And Invest In Stocks And Bonds*, reprint, Fraser Publishing Co.

†See Traders' Glossary for definition

