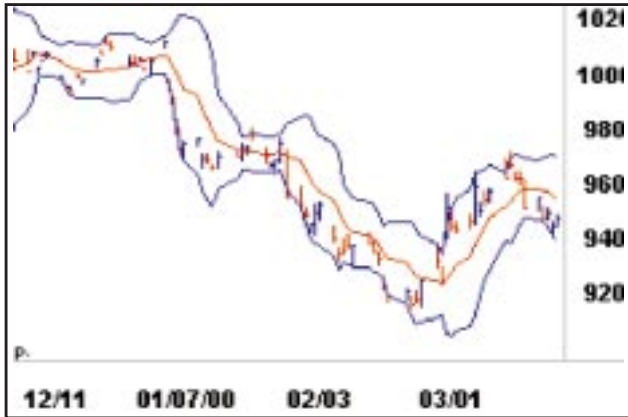


TRADER'S GUIDE TO TECHNICAL INDICATORS

Battle of the bands

(This is the sixteenth article in a series of articles on basic technical analysis.)



This 9-day Bollinger band channel of June Japanese yen futures shows how the width of the channel changes as the volatility of the market changes.

Chart produced by eSignal

Channels provide a framework for price action, as the previous two articles in this series have discussed. Whether you use the straight line trendline channels or the flexible, twisting channels or envelopes formed by moving averages, channels are at the heart of many trading systems, some of which are based on channel breakouts and others on the premise that prices tend to stay within channel boundaries. In either case, where those boundaries are drawn is a key factor in arriving at a trading decision.

One variation of a channel based on moving averages uses Bollinger bands, popularized by California analyst John Bollinger. Like other moving average channels, you can adjust the number of prices in your average to form the center or base line of the channel. Unlike typical moving average channels, however, the upper and lower boundaries of the channel are not based on a percentage of the center line but are placed at a number of standard deviations, usually two, above or below the center line. Fortunately, technical analysis software calculates these deviations from the average to show Bollinger bands on a chart quickly so the task is not as formidable as it might seem.

Because the boundaries are based on standard deviations, the width of the Bollinger band channel changes as the volatility of the market changes, as the chart of Japanese yen futures illustrates. When a channel formed by Bollinger bands is narrow, it indicates the market is quiet. As volatility increases, the Bollinger band channel widens. When the center line is moving closer to the upper channel line, the market is becoming overbought. When the center line is

moving closer to the lower channel line, it is becoming oversold.

Perhaps the best use of the Bollinger band channel is when a market has been quiet for an extended period of time and the channel has become narrow due to a lack of volatility. If prices suddenly jump above the narrow band, it is time to buy; if prices tumble below a narrow band, it is time to sell. If prices come back into the channel, it is time to exit the long or short position. This reaction to signals is different than what you would do with a regular moving average channel.

Options buyers, in particular, might be able to benefit from Bollinger bands when they see the narrow channel conditions while options sellers might be able to capitalize when they spot sudden excursions outside a widening channel. Bollinger bands provide a quick visual picture of transitions in volatility.

Another example of a price channel is based on linear regression. This concept, based on the "least squares" or "best fit" method, attempts to place a straight line, the center line, between two price points in such a way that the distance between the line and each individual price point within the selected time period is minimized. The channel lines are a percentage distance above and below the regression line.

You can set the parameters for price (usually the close) or length of time. A linear regression channel based on 90 days, for example, may have a different slope than one for 180 days, illustrating the overall trend of the market during the period selected and the relationship of the current price to that trend.

The premise behind the linear regression channel is that there is a hidden, underlying market force that will always pull prices back to the regression line when prices stray too far above or below the line - somewhat like the physics principle that every action creates an equal and opposite reaction. A simplified strategy would be to sell when prices approach the upper channel line and buy when prices are near the lower channel line.

Several important points should be emphasized with any channel technique: Channels tend to look better in review on charts than they do as a preview of price action, and prices can hang along a channel line for a long time after giving a "signal." As with other areas of technical analysis, you should incorporate other indicators into any channel trading decision.

Next . . . Mighty momentum.

