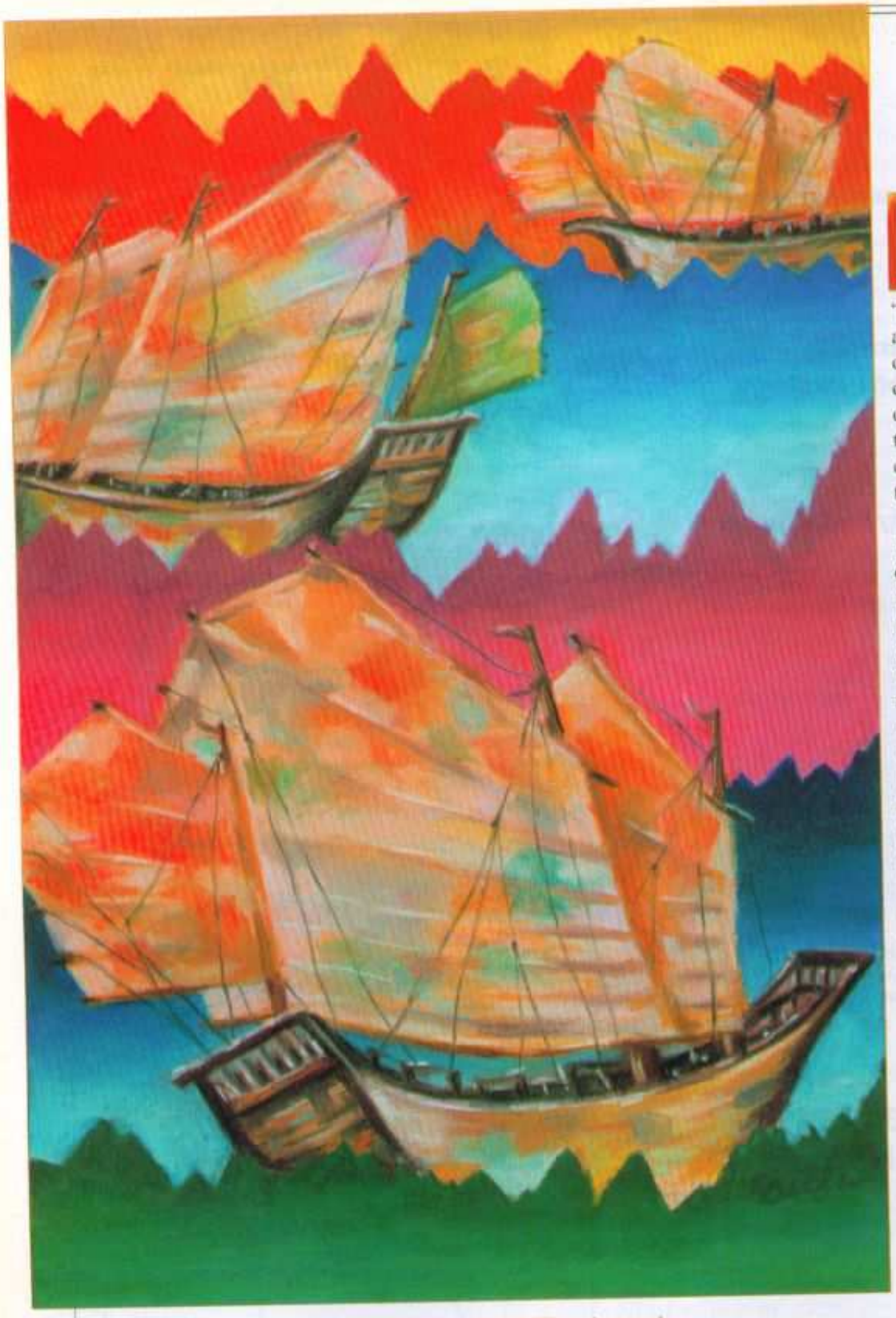

BELLA DOWENS

The Indicator And The Intraday

The MIDAS Touch

Part 2

Last issue, we looked at what the MIDAS formula is and how it can be applied to intraday charts. This time, we'll examine the intraday application of MIDAS more closely.

by Andrew Coles, PhD

Previously, I discussed calculating the MIDAS formula, an acronym for "market interpretation/data analysis system," and how it can be applied to intraday charts. This time, I will discuss some of my observations concerning the application of MIDAS more closely to intraday charts.

1. ***The role of the previous day's high and low.*** In writing about MIDAS, the late technical analyst Paul Levine always identified the launch points of MIDAS as the swing highs and lows of trends, even though he stressed the importance of a launch point in terms of a major change in trading sentiment. The latter is consistent with any swing high or low and not just with the swing highs and lows of the classic trend shapes we are familiar with. This is all to the good, since any competent daytrader knows that the concepts of support and resistance play a broader role in daytrading. Not only is there a daily trend (if any) to be concerned about, but there are also other key levels such as the previous day's high, low, and close, as well as today's open and current high and low. It is interesting to see how MIDAS curves behave in relation to these additional areas where there is a change to a new trading psychology. Figure 1 is a 1M chart of the Xetra DAX index futures contract covering two trading days, February 25 and 26, 2008. As it reveals, launch points from the February 25th high and

low can play a vital role in capturing:

a) Ongoing price action the same trading day (as the black arrows on February 25 indicate)

b) Some of the following day's swing highs and lows, in this case, the day's low.

FIGURE 1: THE ROLE OF PREVIOUS DAY'S HIGH AND LOW. These launch points can help capture ongoing price action on the same trading day and the following day's swing highs and lows.

2. *Four new concepts.* Figure 1 highlights an important phenomenon in MIDAS I refer to as "displacement." This concept is not new since it was implicit in Levine's work, but the daytrader must be much more aware of it.

Briefly, as time passes, the MIDAS and I-MIDAS (the "I" stands for "intraday") indicators move away from price and, in so doing, only capture the larger swing highs and lows. Nowhere is this better illustrated than in Figure 1 where, by the second trading day (February 26), only the day's low is picked up. To ensure that we are keeping in touch with the rapidly moving intraday price action, newer I-MIDAS curves must be launched frequently from more recent swing highs and lows.

For example, if we look at Figure 2, which focuses only on the price action of February 26, we can see that the two resistance curves (R1, blue, and R2, red) and the three support curves (S1, green; S2, magenta; and S3, dark blue) capture most if not all of the swing highs and lows. Bear in mind that the intraday low associated with the launching of the green curve (S1) was captured by both the resistance and support curves from the previous day (Figure 1).

When considering displacement, it is important to appreciate that Levine himself did not recommend more than four to five MIDAS curves on any one chart. For the daytrader this is even more important, because the I-MIDAS formula puts strains on MetaStock when four to five MIDAS curves are plotted on any one chart. Nonetheless, because the average trader should be working with this number of curves at any given time, I am currently working on ways to improve the speed and efficiency of the indicator.

Another phenomenon that can be seen on many of the charts is what I call "curve convergence." This occurs when the curves get closer to one another before converging. You can see that in Figures 1 and 2. Research suggests that once the curves converge, they remain conjoined. Curve convergence does not occur merely among resistance curves or support curves in isolation, but among combinations of resistance and support curves as well. This phenomenon reveals the hidden relationship that actually exists in volume terms between seemingly disparate psychological events such as an intraday high and low and other apparently unrelated highs and lows.

Curve convergence also has other important implications concerning the number of I-MIDAS curves to plot. Because of the speed limitations imposed by using too many plots of the

FIGURE 2: THE CONCEPT OF DISPLACEMENT. To ensure we capture most of the swing highs and lows of the day at all degrees of trend, newer I-MIDAS curves must be continually launched.

FIGURE 3: THE ROLE OF THE PREVIOUS DAY'S CLOSE AND TODAY'S OPEN. After one hour into the trading day of February 28, the curves from the close of February 27 and the open of February 28 converged. The previous day's close and today's open do not create ideal launch points.

indicator, it behooves the trader to delete any superfluous curves that have converged with others. For example, if three curves have suddenly converged, two of them can be deleted and two new ones can be plotted from new swing highs and lows to replace them. This is simply a matter of chart updating, a task all traders are familiar with.

A final noteworthy feature is the opposite of Levine's notion of "porosity," meaning that price will sometimes penetrate a curve by a small margin before responding to it. While price will sometimes penetrate support and resistance curves the way Levine identified, price will also approach close to a support/resistance curve and reverse or consolidate without actually touching it. I refer to this phenomenon as "price levitation."

An example of this phenomenon can be seen in Figure 2 just before the green arrow. Here, price is porous in relation to R2 (red curve) but "floats" just a little below R1 (blue curve) and then responds without touching it. A series of good examples can be found in Figure 1 in relation to R1 (red curve). As the curve falls, price rallies back up to it on another three occasions, floats just below it, and then falls back.

3. *The role of the previous day's close and today's open.* Figure 3, another 1M chart of the same DAX futures contract, shows a close on February 27 of 6990 followed by a gap down of 17 index points and an open of 6973. Despite the gap, after 60 bars (one hour) into the trading day of February 28, the curves from the close of February 27 and the open of February 28 have converged, again indicating the hidden relationship in volume terms between apparently disparate events. Provisional research suggests that in most cases I-MIDAS curves from yesterday's close and today's open converge after 60 bars (one hour) on a 1M chart. In general, yesterday's close and today's open do not create ideal launch points unless they happen to be close to the high and low of the day. Moreover, because they converge so quickly, one of the two lines will always be superfluous.

4. *Trading with I-MIDAS.* At the risk of stating the obvious (and ignoring the issue of price consolidation), price can do one of four things when approaching an I-MIDAS curve. It can:

- **a** Bounce off it to create a new swing high or low
- **b** Penetrate a porous curve slightly before creating a new swing high or low
- **c** Float just above or below a curve before responding.

or

- **d** Move straight through it.

As far as (d) is concerned, we have seen that the on-balance volume (OBV) can be a helpful guide strongly recommended by Levine himself in assessing the likelihood that an S/R curve will continue holding prices or be penetrated by it. Other technical tools can do this job too, including momentum oscillators, other areas of support and resistance on the chart, objective price targets such as Fibonacci levels, and trend-strength determining indicators such as Chande's aroon indicator or J. Welles Wilder's average directional movement index (ADX). All of these can be used as filters for assessing the continuing dominance of an S/R curve over price. Indeed, Levine was more than happy to use other technical tools alongside MIDAS, and he cited conventional trendlines, candlesticks, the moving average convergence/divergence (MACD), and Bollinger bands.

So far as possibility (a) is concerned, candlesticks are an

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FIGURE 4: SHORT-TERM SWING TRADING. Here, only three curves are plotted, but each curve creates a signal of several days' duration.

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ideal choice. Any typical reversal candlestick formation on an I-MIDAS curve followed by a break above/below the high/low of that candlestick would encourage an entry with a tight and efficient stop at the low/high of the reversal candlestick itself. When possibility (b) arises and price penetrates an I-MIDAS curve, the level of porosity is seldom more than the length of a candlestick, so any reversal within these parameters permits the same entry conditions described for (a). Where penetrations are deeper, a trader can simply wait to see if price reverses back through the curve and then take appropriate action.

Finally, with regard to (c), traders can again look for candlestick reversal patterns floating just above or below a curve and look also at indicators such as OBV and various oscillators.

5. Other intraday time frames and short-term swing trading. So far, I have not discussed much about swing trading. This is because the forecasting principles discussed so far all apply to 60M, 120M, and 240M charts, which most people would assume to be of interest to the short-term swing trader. However, even a 15M chart is in most cases sufficient for signals, unless a trader wants to complement his analysis with indicators only suitably plotted on higher time frame charts.

Figure 4, the final chart, covers a large span of time from December 2007 to late February 2008. Only three curves are plotted, but each curve creates a signal of several days' duration. Finally, I have focused on extremely short 1M intraday charts because, as can also be seen in Figure 4, the displacement phenomenon means that curves move away from price rapidly. As a result, not enough trades would be generated even on 5M charts for an active daytrader.

CONCLUSION

Since technical analysts first started drawing trendlines and support and resistance lines on the basis of price action, they have known that there is at least a superficial order in the financial markets that can be linearly highlighted. What Paul Levine's work shows is that by adding volume, a deeper nonlinear order can also be seen in the markets marked by any place where there is a change in market psychology. It was also a central claim of Levine's philosophy that markets are fractal hierarchies of support and resistance levels. This is amply demonstrated by his central methodology on the daily charts of applying several M-curves to the trend as it develops.

Back in 1995, access to intraday data for charting in Excel or other standalone applications such as WinMIDAS was severely restricted if not impossible, and hence, broader trials of fractal-based methodologies were also similarly restricted. The fact that such data are readily available now and that Levine's principles apply equally powerfully to intraday data as well as to the daily charts is full testament to their richness and perspicacity.

Andrew Coles is based in the UK and has a master's degree and a doctorate in the history of science. He has a diploma in technical analysis from STA-UK and from the International Federation of Technical Analysts (IFTA). He is also a certified financial technician (CFTe). He can be reached at andrew_coles@ownmail.net.

SUGGESTED READING

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‡MetaStock (Equis International)

‡See Editorial Resource Index

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