Tom DeMark

Continuing our discussion with Tom DeMark, the analyst, author, and strategy designer discusses retracements, price projections, and enhancements to his signature trend reversal techniques.

BY ACTIVE TRADER STAFF

Last month's installment of our multi-part Tom DeMark interview ("Tom DeMark: Market Immersion," *Active Trader*, July 2007, p. 39) concluded with DeMark discussing his discovery of the Fibonacci time series in the 70s. Through one of his many contacts in the trading industry, DeMark heard about R.N. Elliott and found a treatise Elliott had written called "Nature's Law" (published by *Financial World*), which dealt in part with Fibonacci numbers.

Here, DeMark explains how he adapted Fibonacci concepts to his work.

AT: *How do you use Fibonacci numbers differently from other people?*

TD: I use objective, mechanical rules. For instance, the TD Absolute Retracement is applied to the closing prices of long-standing price tops and bottoms. Specifically, you multiply the high day's close by a Fibonacci ratio — say, 61.8 percent, 50 percent, or 38.2 percent.

Take a look at this chart of the S&P 500 from 2000 (*Figure 1*). First, you identify a high — March 24 in the S&P, for example (*the March 24 high day's close was 1,527.46*). By multiplying the high day's close by 61.8 percent and 50 percent, you identify two downside price levels (*943.73 and 763.73*) that line up almost perfectly with two of the subsequent major lows — Sept. 21, 2001 and Oct. 10, 2002.

Now look at the FTSE 100 index in 1987 (*Figure 2*). This is also an example of (*Sequential*) 13s occurring at highs, first in July and then again in early October. (*See "Sequential and Combo," p. 42, for information about these techniques.*) You take the closing price on the day that made the highest high, and multiplying that by 61.8 percent and projecting it to the downside gave the exact low in October 1987.

I also calculated this in the Dow (*Figure 3*). The highest day's close was 2,642.42. I projected the downside and it

went right there — 1,640.79. Then a TD Sequential 13 occurred on Dec. 1, so you had a combination of the two signals.

AT: *How do you identify the appropriate high day from which to project the ratios?*

TD: TD Absolute Retracements initially required an all-time price high to be used to project a downside retracement level, but my son TJ refined the process to include any high preceded by a rally off a low of at least 138.2 percent. If this requirement isn't met, then TD Relative Retracements are used to identify support and resistance levels.

AT: *What's the Relative Retracement technique?*

TD: Look again at the S&P cash low in September 2001, when the S&P dropped to 944.75 (*refer to Figure 1*). When calculating a downside retracement price objective off a high, you look to the left of that high on the chart and find the last time price exceeded that high. Then, you use the low between those two highs as the low price for the calculation.

AT: *In other words, this is a mechanical way to find the appropriate low from which to define the current price move, and then you can calculate Fibonacci percentage retracements of it.*

TD: Right. Similarly, for an upside relative retracement, you select a low and go back until the last time the market matched that low or made a lower low. Then you find the highest high between these lows.

The selection of price points is critical. Relating highs and lows to prior higher highs and lower lows makes the process of retracements mechanical and objective.

In the case of the S&P, if you project up 38.2 percent from the 944.75 low, you get exactly 1,177.05, which was the [2001] high.

AT: *Just to be clear, the last time the S&P traded as low as 944.75 was 1998* (not visible on chart), *and the highest high between the two points was the March 2000 high* (1,552.87). *Do you multiply the difference between the two* (608.12) *and add the result to 944.75 to get the projected retracement high off that low?*

TD: Yes.

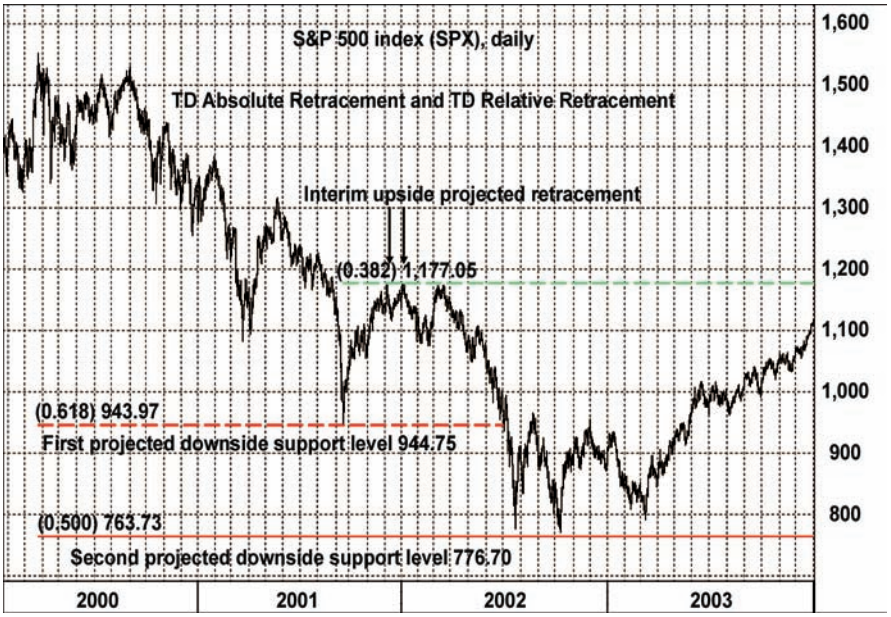

FIGURE 1 S&P RETRACEMENTS TD Absolute and Relative retracements mark several of the major turning points in the S&P in the aftermath of the 2000 market top.
Source: Bloomberg (www.bloomberg.com)

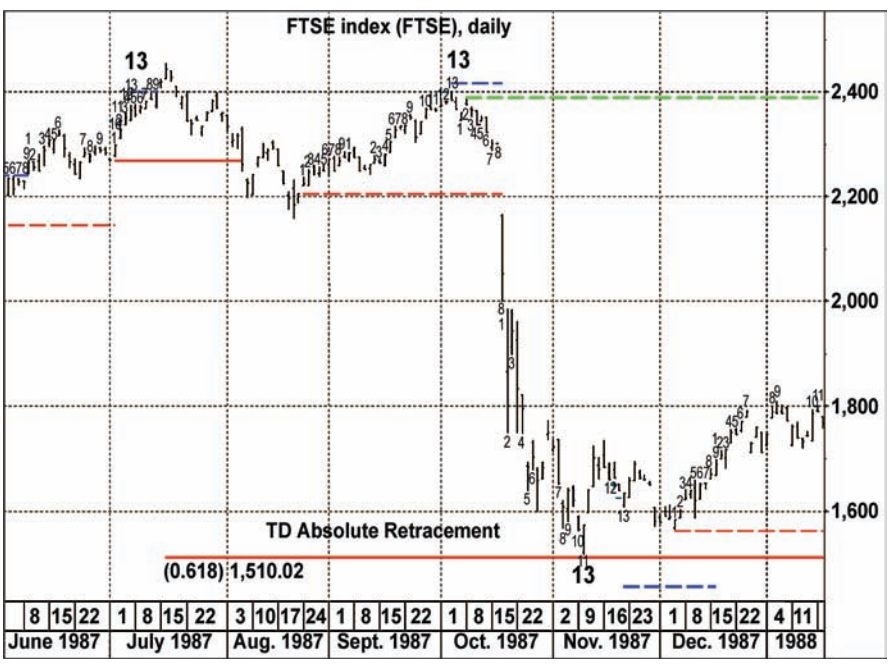

FIGURE 2 RETRACEMENT AND SEQUENTIAL TD Sequential and retracement signals are in sync as the FTSE index bottoms.
Source: Bloomberg (www.bloomberg.com)

AT: *Are there any recent retracement levels or targets you can talk about?*

TD: Home Depot (*Figure 4*). I projected a Relative Retracement off of the March 29 low by finding the last time price was lower than the March 29 low and then

Sequential and Combo

Both TD Sequential and TD Combo consist of two sections, Setup and Countdown. The Setup section is identical for both studies, but the Countdown portion of each technique has certain differences.

The minimum requirement for a TD Sequential/Combo buy or sell setup is nine consecutive closes lower than the close four days earlier, or nine consecutive closes above the close four days earlier, respectively. It is important that either price bar 8 or 9 exceed both bars 6 and 7 of the setup.

The Combo Countdown differs from the Sequential Countdown in that it has three, rather than just one, necessary conditions. Once a Combo Sell Setup has completed, the study starts at Setup bar 1 (vs. Setup bar 9 for Sequential) to determine if these three conditions exist. Each Combo Countdown price bar for a sell Setup must have:

1) a close greater than or equal to the high two bars earlier;
2) a high greater than the previous bar's high, and
3) a close greater than the close of the previous bar's close. (Because Combo Countdown bar 1, by definition, has no preceding Countdown bar close, this condition is not needed for Countdown bar 1.)

These conditions are reversed for a buy Combo Countdown.

Because of its more stringent requirements, there are typically fewer Combo trade opportunities than Sequential opportunities. However, Combo nevertheless adds value by highlighting trend exhaustion zones, whether independently or in conjunction with Sequential.

TDST lines

TD Setup Trend (TDST) lines are horizontal lines drawn from the highest true high of a Buy Setup (green lines) or the lowest true low of a Sell Setup (red lines). "True high" refers to the higher of the current bar's high or the previous close; "true low" is the lower of the current bar's low or the previous close.

These levels, when crossed and qualified, can be used to determine the strength of ongoing but incomplete TD Setups or TD Countdowns. They function as support and resistance levels: If a market fails to move above an overhead TDST level (resistance), the trend is down; if it is unable to break below a TDST (support), the trend is up.

–Adapted from "DeMarking trend exhaustion zones," by Lindsay Glass (*Active Trader*, July 2002). See "Related reading" on p. 46 for more resources.

selecting the highest high between those two prices to calculate retracements. The 38.2 percent retracement level provided upside resistance on April 10 and the 61.8 percent retracement level provided resistance on June 1.

AT: *With the Relative Retracement, do you calculate ratios using the highs and low of price bars, rather than the closing prices?*

TD: Yes.

AT: *What is the Magnet Price?*

TD: It's close of the high bar of a top or the low bar of a bottom. It's called the Magnet Price because it's the level to which price seems to gravitate.

Many traders' headstones include the words, "I waited for the full retracement." Most people incorrectly believe that when price exceeds the 61.8-percent retracement level, the market will gravitate to the full, or 100-percent, retracement– that is, the absolute intraday high or low.

In fact, it's more likely the retracement will end at the high bar's close at a top or the low bar's close at a bottom. My research indicates once the intraday high or low is reached, the market is actually more likely to continue to move higher or lower.

> One important qualifier is whether the close the bar before an upside breakout is an up close or a down close.

AT: *Are TD Arcs another Fibonacci-based tool?*

TD: Retracements have always been applied in terms of one dimension only — price. But time is an influential factor, too, and by combining price and time, you can get early breakout indications.

By constructing a diagonal line on a chart, applying Fibonacci price points to the line, and using the low or the high as a fulcrum, you can swing the line forward and create an arc that projects into the future (*Figure 5*).

AT: *Do you use any kind of filter or supporting criteria for signals based on these types of tools?*

TD: Once you identify retracement levels, it's imperative to properly define them as either qualified or disqualified. This gives you a huge advantage: Knowing in advance whether price is likely to continue to trade above or below breakout levels enables you to enter before the close

of trading.

One important qualifier is whether the price bar before an upside breakout was an up close or a down close. Because traders are creatures of habit, they tend to extrapolate trends into the future and anticipate possible breakouts. Their collective activity and anticipation is apparent when an up close occurs on the price bar preceding an obvious upside breakout level. But when this happens the likelihood of follow-through after an intraday upside breakout decreases because traders are already invested in the market.

On the other hand, when there's a down close prior to an upside breakout, the skepticism and lack of anticipation of the breakout actually help perpetuate an upside move and imply likely follow-through into the close of trading.

AT: *Because, presumably, traders are caught off balance and some amount of short-covering has to be taking place?*

TD: Definitely. Also, although it's great to trade qualified upside breakouts on the long side, it's more rewarding to buy puts or sell short when disqualified upside breakouts occur because it allows you to trade against the trend.

AT: *Are there other trade qualifiers?*

TD: There are three in all. As I mentioned, the first one requires the price bar immediately preceding an upside breakout to close down; the opposite is true for a downside breakout. Then, when price goes above the breakout level, the move is qualified and you can buy intraday at the breakout level rather than waiting for the close.

A variation of this qualifier is that the close the day before the breakout can be an up close, but only if the close is also below the opening price.

If the day before the breakout closes higher and above the open, the breakout is disqualified and you would want to sell into it — unless the second qualifier occurs. The opening must be above the breakout level — which means news came out overnight — and the high must be above the open.

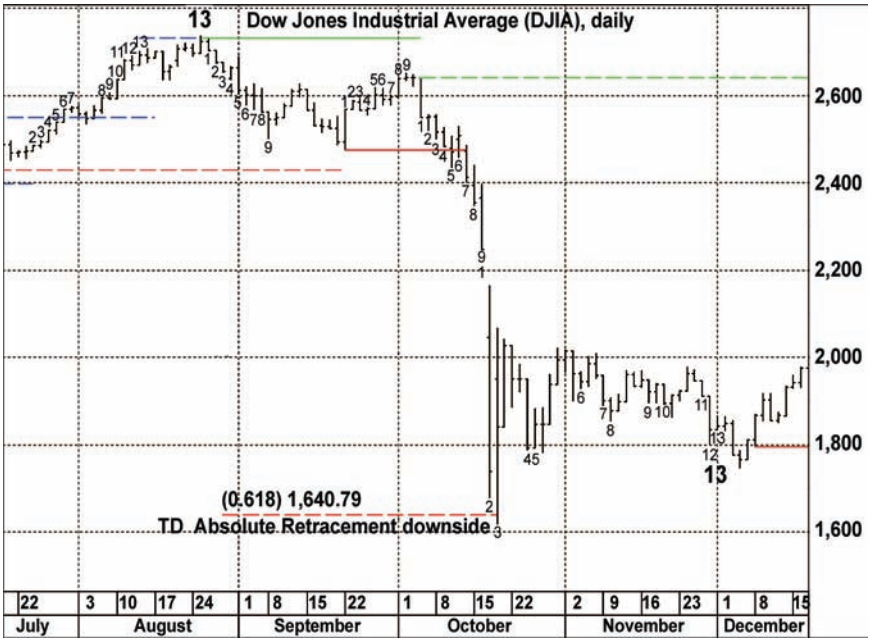

FIGURE 3 ABSOLUTE DOW *A TD Absolute Retracement projecting the October 1987 low was followed by a TD Sequential 13 on Dec. 1.*
Source: Bloomberg (www.bloomberg.com)

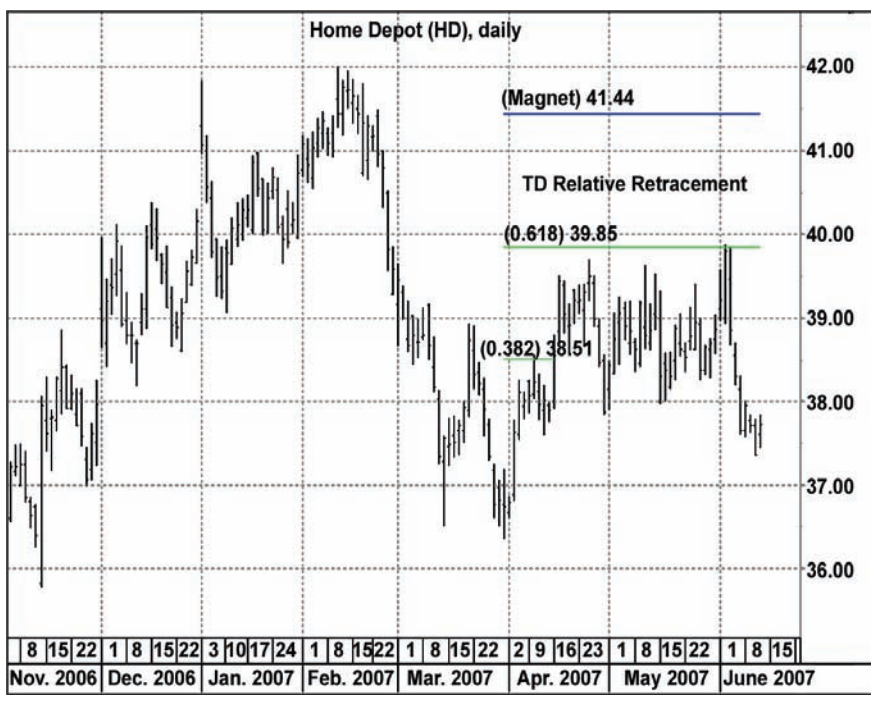

FIGURE 4: RECENT RETRACEMENTS *Relative Retracements projected off the March 29 low defined upside resistance in April and June.*
Source: Bloomberg (www.bloomberg.com)

AT: *Which means the opening price can't also be the intraday high, right?*

TD: Right. If qualifier two doesn't apply, you move on to qualifier three, which measures buying pressure on the breakout.

The buying pressure is the difference between the close and the true low (*the lower of the low or the previous day's close*) the day before the breakout. You add this

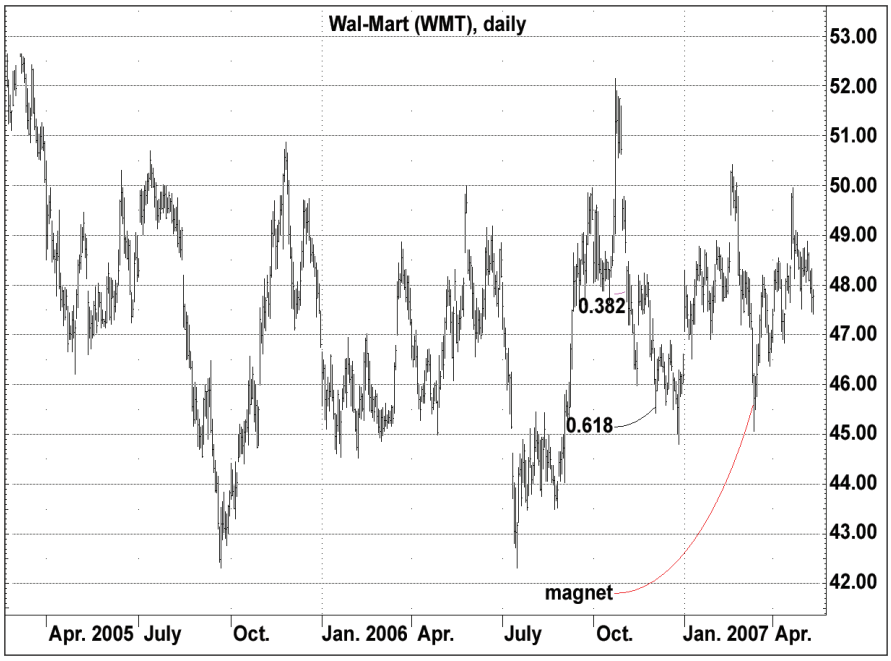

FIGURE 5: TD ARCS TD Arcs incorporate the time component into Fibonacci projections. A line with Fibonacci percentage is pivoted forward in time to create the arcs.
Source: CQG (www.cqg.com)

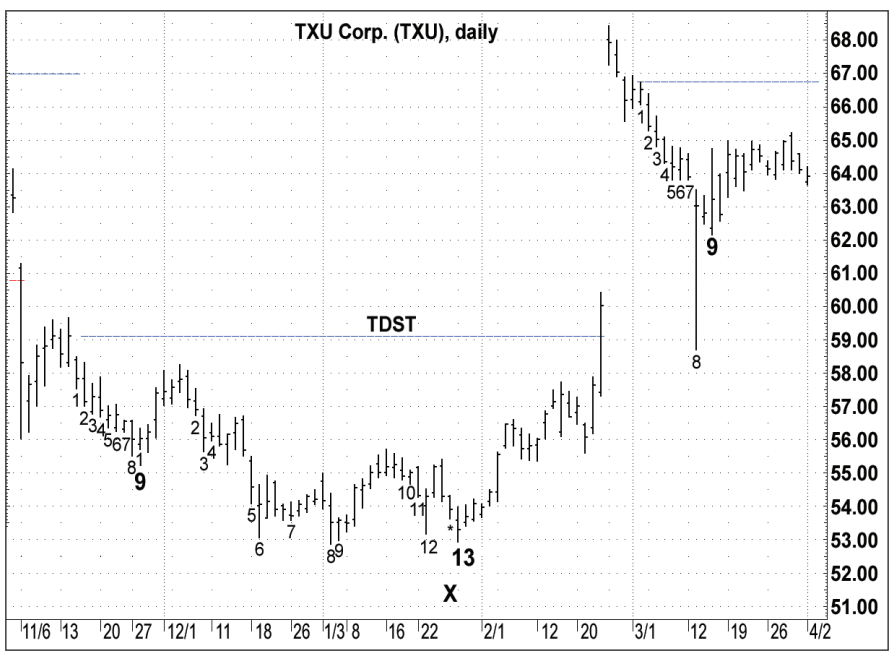

FIGURE 6: X MARKS THE SPOT The asterisk (between Countdown bars 12 and 13) appears when all the elements required for Countdown 13 exist, but the low of Countdown bar 13 is not less than or equal to the close of Countdown bar 8 at a likely market bottom. This exception applies only to TD Sequential (not TD Combo).
Source: CQG (www.cqg.com)

amount to the close, and it tells you the price level at which the market will match the prior day's buying pressure. If the current day exceeds this amount and price breaks out above the breakout level — and the breakout level was above the prior close plus the buying pressure — the move is qualified.

More often than not, the prior day's close plus the buying pressure is above the breakout or retracement level, which disqualifies the move.

Again, I suggest fading disqualified moves, but usually just for a single price bar. It's a pretty good technique, especially if the market is really stretching to the upside.

AT: *So, by default, it's a very short-term signal when you fade the signal, and longer-term when it's qualified and you trade in that direction.*
TD: Yes. Fading a signal can lead into confirmation of a long-term price turning point, but it needs constant monitoring.

AT: *And the qualifiers are all just reversed for downside breakouts and short trades, right?*
TD: Yes.

AT: *Have you ever considered the possibility the qualifiers might be over-optimizing, in a way?*
TD: No. I use the same three qualifiers for retracements, trendlines, and everything, and they work across all time frames.

AT: *That seems a little strange, given the role the closing price plays. The daily close has some real significance, but how important can the close of a one-minute bar be?*
TD: It's definitely relevant to floor traders and other very short-term traders.

AT: *You recently mentioned some enhancements to Sequential and Combo. Can you talk a little about these?*
TD: Take a look at this TD Sequential chart of TXU Corp., which shows a Countdown (*Figure 6*). Note that after Countdown bar 12 there is a price bar

with an asterisk, followed immediately by the 13 bar. The asterisk appears when all the elements required for Countdown 13 exist — except the low of Countdown bar 13 is not less than or equal to the close of Countdown bar 8 at a likely market bottom.

This rule is designed to ensure the 13 bar coincides with price weakness rather than strength. This exception is applicable only to TD Sequential; TD Combo requires that every price bar associated with a Buy Countdown is consecutively lower.

Both TD Sequential and TD Combo have the same requirements for the setup phase. Once the minimum requirement for buy and sell setup is met — nine consecutive closes less than the close four bars earlier for a buy setup, or nine consecutive closes greater than the close four bars earlier for a sell setup — a TD setup level (*TDST*) can be drawn. It extends from the highest price of a buy setup, or the lowest price of a sell setup, into the future.

I suggest fading disqualified moves, but usually just for a single price bar.

If the buy setup TDST level is exceeded upside on a closing basis before the completion of a sell setup, it often implies an overall trend to the upside has been defined. Conversely, if the sell setup TDST level is exceeded downside on a closing basis prior to the completion of a buy setup, it suggests an overall trend to the downside has been defined. Also, these likely trend breakouts imply price movement will probably continue through Countdown completion.

AT: *What's the most glaring example you can think of when a trade setup of yours failed?*

TD: July 1989, in the currency market. I was at Tudor (*Paul Tudor Jones' trading firm*). Everything was indicating the market was about to reverse — across the board in foreign currencies. Everything was synchronized perfectly — all the currencies were giving the same indication — the franc, mark, yen, pound.

And it just didn't work. We'd made quite a bit of money prior to that and we'd put on a huge position. Luckily there were stops in place. Tudor was very rigid in regard to money management.

AT: *Do those things take a psychological toll on you?*

TD: Sure they do, but they only provide an impetus for more research to uncover what would have prevented this from occurring.

It's a process — a never-ending process — of searching for the decoder to market price movement.

Related reading

Books by Tom DeMark:

The New Science of Technical Analysis (John Wiley & Sons, 1994).
New Market Timing Techniques (John Wiley & Sons, 1997).
DeMark on Day Trading Options (McGraw-Hill, 1999).

The following list includes articles written or co-written by Tom DeMark, three interviews with him, and analysis of a trading system based on one of his trading techniques.

"Tom DeMark: Market immersion"
Active Trader, July 2007.
Thirty-five years into his career, this top advisor remains immersed in the markets.

"Trader Interview: Tom DeMark"
Futures & Options Trader, April 2007.

"Absolute price projections"
by Tom DeMark and Rocke DeMark (*Active Trader*, August 2004).
The approach outlined in this article, TD Absolute Retracement, is a technique for calculating price retracements and extensions designed to avoid the subjectivity of conventional techniques.

"Active Trader Interview — Tom DeMark: Objectively speaking"
Active Trader, November 2001.
Contains biographical information as well as analysis.

"DeMarking trend exhaustion zones"
by Lindsay Glass (*Active Trader*, August 2002).
This article shows how to use different DeMark indicators, TD Sequential and TD Combo, to identify trend-exhaustion zones.

"Trading System Lab: DeMark variation"
by Thomas Stridsman (*Active Trader*, September 2001).
Historical testing of a system based on a pattern called "TD Carrie," described by Tom DeMark in his book *New Market Timing Techniques*.

Tom DeMark Four-Article Set
The four articles listed above, in a single PDF file and sold at a discount through the *Active Trader* store: www.activetradermag.com/purchase_articles.htm.