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Monthly

TOOLS OF THE TRADE

COMBINING TREND ANALYSIS WITH INDICATOR READINGS

By David Vomund

DAVID VOMUND

Which technical indicator is the most effective? That is a frequently asked question. Unfortunately, it is not an easy question to answer as most indicators work well only under a particular type of market environment. Most indicators can be classified into two categories which are defined by the type of market environment (trending or trading) in which they are effective.

In strong trending markets, some indicators work very well while others fail to give good results. In consolidating or trading markets, those indicators that failed during trending market environments often work best. Before analyzing a security with a set of indicators, it is essential to determine the trend of the security and then apply the appropriate indicators in the analysis.

Determining the Trend

There are several methods to help determine whether a security is in a trending or non-trending (trading) environment. The ADX indicator, developed by Welles Wilder, is designed to flag trending securities. Those securities with an increasing ADX indicator are in a trending environment while those with a decreasing ADX are in a trading environment. This indicator is generally only helpful to very short term traders.

My preferred method of determining whether a security is in a trending or a trading environment is to simply look at a chart of the security along with its 28-day moving average. When price rarely crosses the moving average, the security is in a trending environment. However, if price constantly crosses the average, the security is in a trading environment.

An example of a strong trending stock is Nike (NKE). The top half of

> *"Before analyzing a security...it is essential to determine the trend of the security and then apply the appropriate indicators in the analysis."*

TOOLS OF THE TRADE *continued* . . .

Figure 1 shows Nike along with its 28-day moving average. Notice that Nike never fell below its 28-day moving average from March until June. The moving average acted as support as the stock moved higher.

The lower half of **Figure 1** displays a non-trending security, Louisiana Pacific (LPX). This security would be a poor choice for a buy-and-hold type of investment since its price is almost at the same level in June as it was in January. As it moved sideways, the 28-day moving average was crossed on several occasions. During this period, the 28-day moving average failed to act as support or resistance for LPX.

Classifying Indicators

With the trend of a security determined, we can now classify indicators into two categories — those that work best in trending markets and those that work best in trading markets. In **Table 1** we've classified some well known indicators into these two categories.
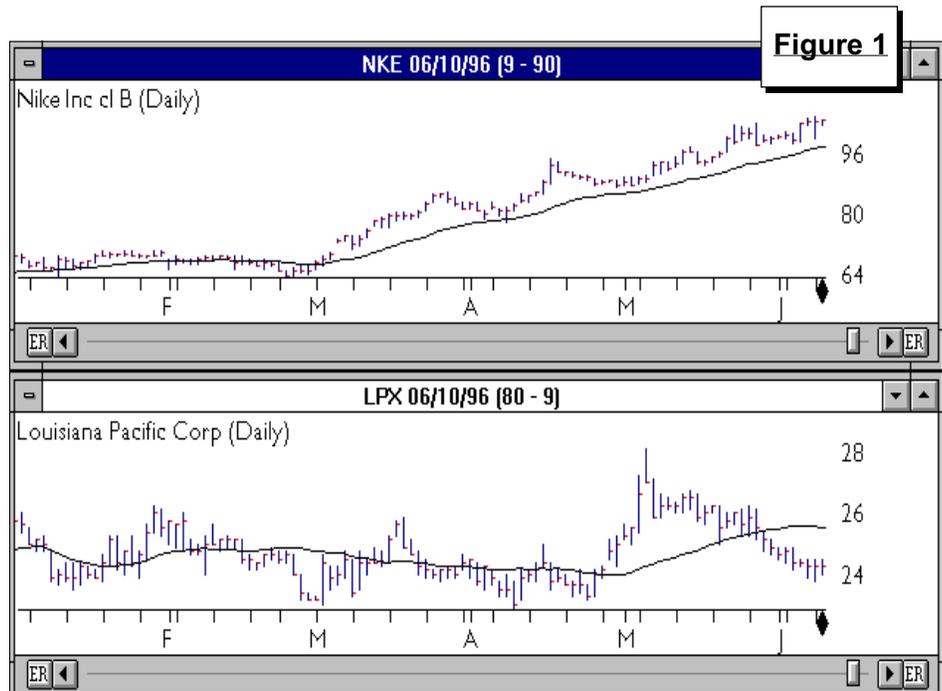
Generally, indicators that work well in non-trending market environments are those that give overbought/oversold readings. The theory is that when a security rises too far too fast it becomes "overbought" and therefore retreats.

The opposite is true for oversold conditions. These indicators work well in non-trending environments because an overbought reading is registered whenever the security rallies to the upper end of its trading range. Conversely, the security becomes oversold when it nears the lower end of its trading range.
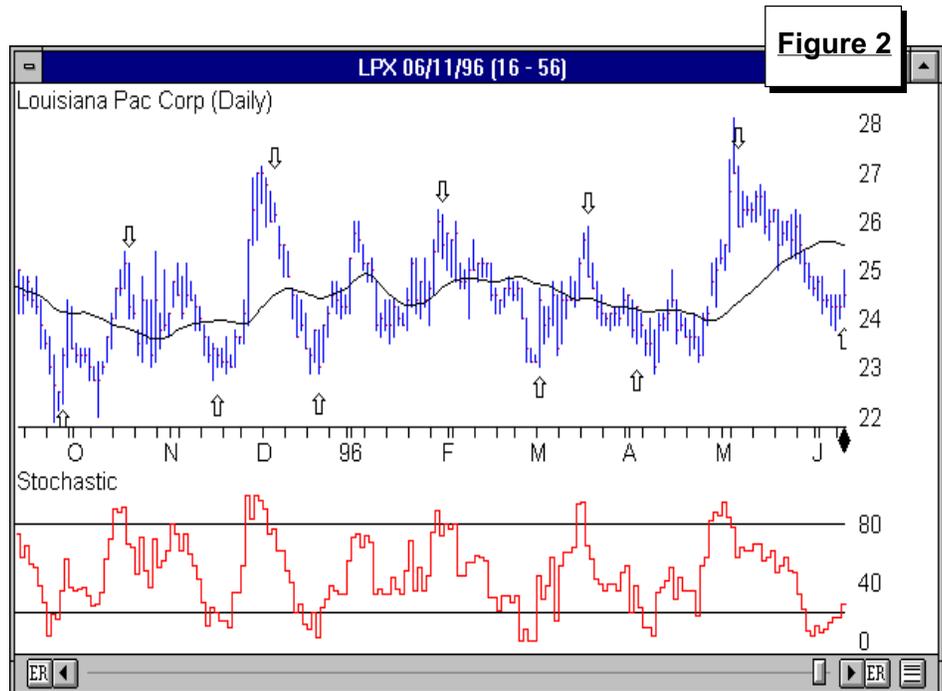
Indicators that work well in trending environments are generally those that tend to remain positive as long as the security continues to rise or those that remain negative as long as the security decreases. A common element in many of these types of indicators is the use of moving averages.

Note: Some indicators such as On Balance Volume and Money Flow are not listed since they do not give strict buy and sell signals.

Figure 1

Figure 2

TOOLS OF THE TRADE *continued* . . .

Table 1

Indicator Classification

Trending	Non-Trending
AD Osc	RSI
Dir Mov	Stoc
MACD	MF RSI
MD Osc	
Mov Avg	
P-Vol	
SK-SD	

Table 2

Stochastic Signals for Louisiana Pacific

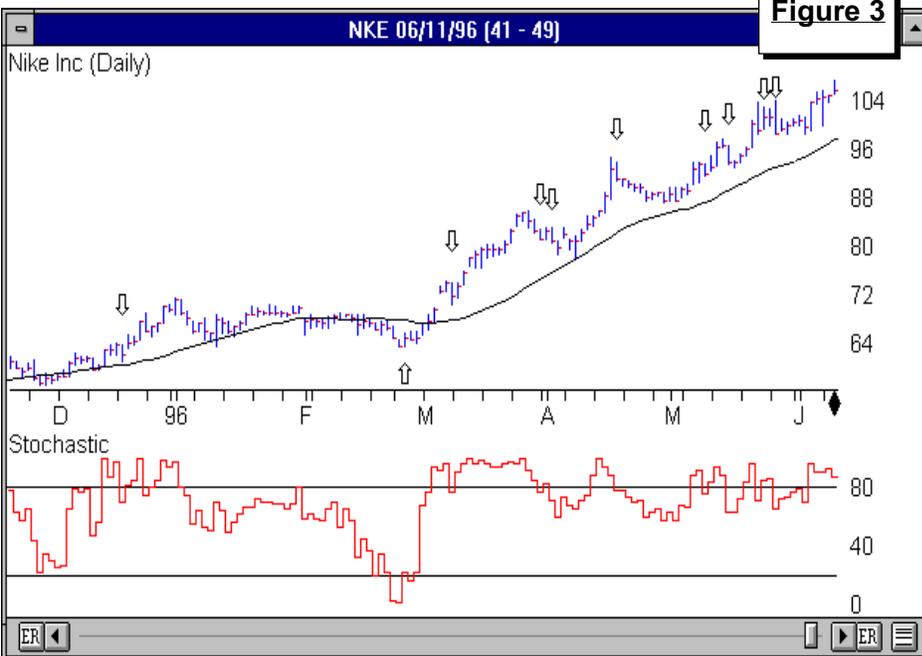| Buy Date	Buy Price	Sell Date	Sell Price	Percent Change
09/28/95	23.250	10/19/95	24.250	4.301
11/15/95	23.375	12/05/95	26.000	11.230
12/19/95	23.750	01/31/96	25.500	7.368
03/04/96	24.375	03/19/96	24.875	2.051
04/03/96	24.250	05/07/96	25.875	6.701

Non-Trending Indicators

To demonstrate the effectiveness of a non-trending indicator, we'll again examine Louisiana Pacific (LPX). **Figure 2** shows LPX charted with its Stochastic, an indicator that works well for non-trending securities. A Stochastic buy signal is registered when the indicator moves out of oversold territory by rising above the lower horizontal line (corresponding to a value of 20). A sell is registered when the indicator falls below the upper horizontal line (corresponding to a value of 80). Using a feature available in TradingExpert's new 3.0 version, we've drawn arrows on the LPX price chart that correspond to the buy and sell signals generated by the Stochastic indicator.

Notice that the stock tends to fluctuate between $23 and $27. When the stock falls to the lower end of this range, a Stochastic buy signal is often registered. A corresponding sell is registered when the security rises to the upper end of its range. A listing of the actual signals registered in Figure 2 is found in **Table 2**. Each trade based on these signals is profitable. For a non-trending security, the Stochastic can be very effective.

However, the Stochastic indicator loses its effectiveness when a security is in a strong trend. An example of this is shown in **Figure 3**, which displays Nike (NKE) along with its Stochastic indicator. The indicator gave a good

Figure 3

buy signal in late February but proceeded to give a series of sell signals even as the security moved higher. The Stochastic will almost always have you exit from strong performing securities too early.

Trending Indicators

Now we'll examine the effectiveness of an indicator that works well in trending market environments. In **Figure 4**, Nike is charted along with its Directional Movement Index (DMI). Using the DMI, a buy is registered when the indicator moves above zero and a sell is registered when it falls below zero. On the Nike price chart,

arrows are placed that correspond to the DMI buy and sell signals. Notice that in almost every month shown on this chart, the DMI remained positive. Other than two short-lived sell signals, the indicator kept us in the security as the security moved higher. The actual signals registered are listed in **Table 3**.

The DMI worked well for this trending security, but loses its effectiveness for non-trending securities. **Figure 5** is a chart of Louisiana Pacific (LPX) along with its DMI. Looking at the arrows, we see many signals were registered but the majority of them

turned out to be whipsaws. The actual signals registered in this example are listed in **Table 4**. The majority of the signals were unprofitable.
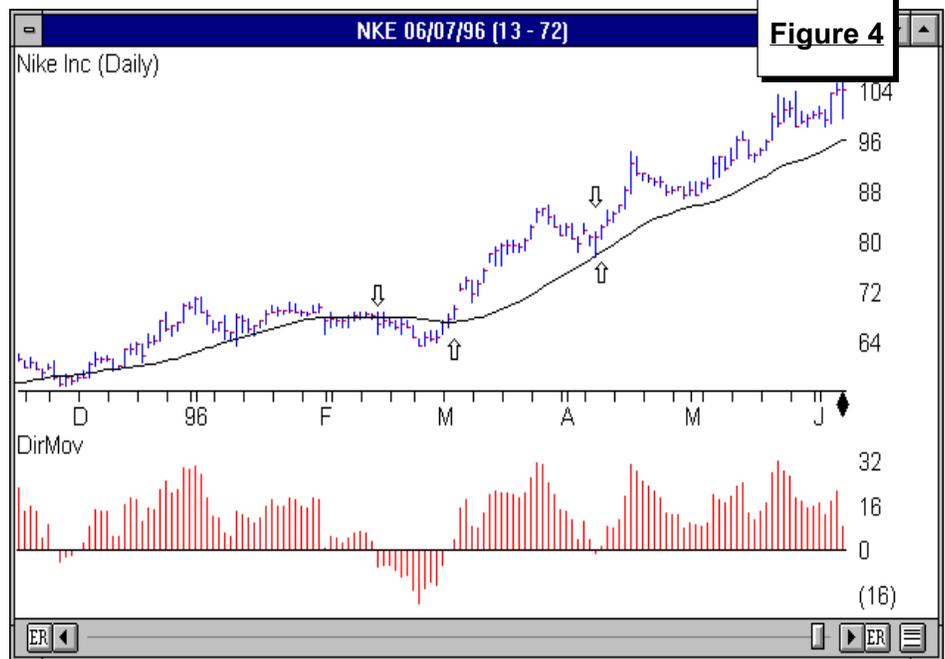
Trending Security, Non-Trending Indicator

We've seen in our analysis that when an indicator which works well in a non-trending market is applied to a trending security, it tends to give bad signals against the trend. Does this mean the indicator should be ignored? Not so fast. By making adjustments to an indicator's interpretation, we can effectively apply a non-trending indicator to a trending security.
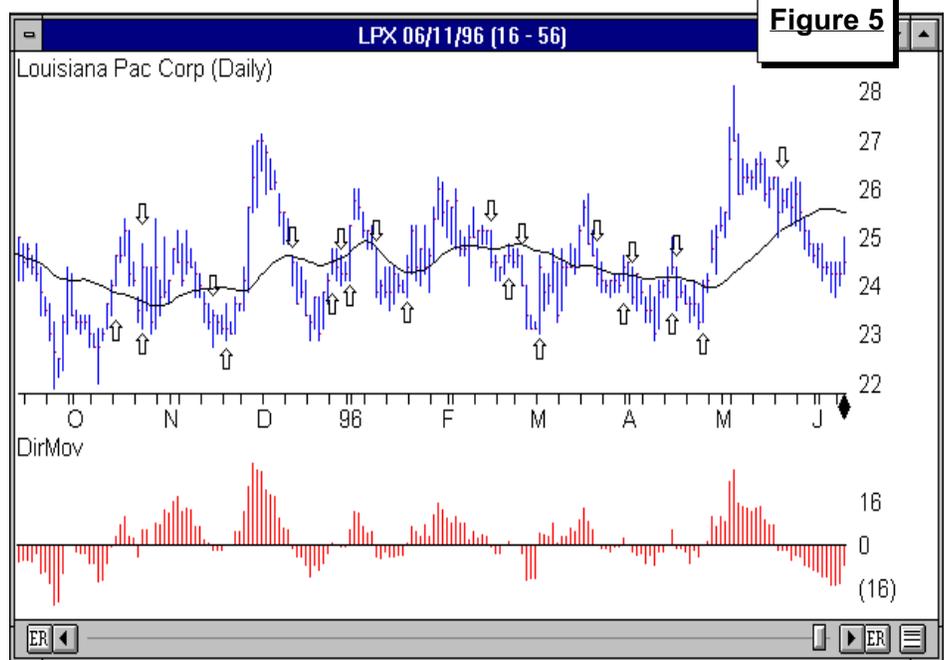
The first adjustment is to simply ignore all signals against the trend of the security. We've seen these indicators give frequent sell signals during a strong advance. These signals should be ignored. This doesn't mean you shouldn't have an exit system in place. It means that the exit system should not involve the use of non-trending indicators.

The second adjustment is to change the requirements for buy and sell signals so that the indicator gives signals in the direction of the overall trend. Using defaulted values (values recommended by the developer), a Stochastic or RSI rarely gives a buy signal for a strongly advancing security. As a result, the "oversold" levels should be adjusted upward so the indicator will give buy signals. Instead of the normal default value of 20 for the Stochastic, the oversold level should be raised to 50 for a strongly advancing security. Then a Stochastic buy is given anytime the indicator falls below and then rises above a value of 50 .

An example is found in **Figure 6**, which displays the Dow Jones Industrial Average for 1995's strongly advancing market. We know the market is in a strong uptrend because its 28-day moving average is not broken. Using the default buy and sell values for the Stochastic, the indicator failed to give a single buy signal in 1995 but gave sell signals almost every week of the year. Not very effective.

Figure 4

Figure 5

Table 3

DMI Signals for Nike Inc.

Buy Date	Buy Price	Sell Date	Sell Price	Percent Change
12/01/95	58.500	02/14/96	67.000	14.530
03/05/96	69.500	04/09/96	81.000	16.547
04/10/96	82.375	06/19/96	100.375	21.851

By making our adjustments, we identify the strong trend and therefore ignore the sell signals from all non-trending type indicators. By raising the oversold level of the Stochastic, buy signals are registered when the indicator falls below and rises above 50, which happened in early March, twice in May, and again in July (see arrows on the price chart in Figure 6).

Non-Trending Security—Improving the Odds

Almost every security is in a trend, but sometimes it is necessary to look at longer-term data to find what the trend is. Plotting only the last few months may show that no trend is in place while a two-year chart may reveal that the security is in a definite uptrend. A good example of this is Mirage Resorts at the end of 1995. **Figure 7** (page 6) shows a chart of Mirage Resorts (MIR) using daily data. We see a non-trending security as the stock crosses its 28-day moving average often.

By plotting the same stock using weekly data, we get a different picture (**Figure 8**). The stock began a strong rally in early 1995 as it rarely crossed below its 28-week moving average. Whereas the daily chart shows a stock in a trading range, its weekly chart reveals an uptrending stock that is currently undergoing temporary consolidation.

Once the long term trend is determined, we can improve our odds by trading only in the direction of the trend. On the daily chart, the stock is consolidating so the Stochastic or an RSI indicator is appropriate. Since the overall trend is higher, we can improve the accuracy of the signals by only acting on the buy signals.
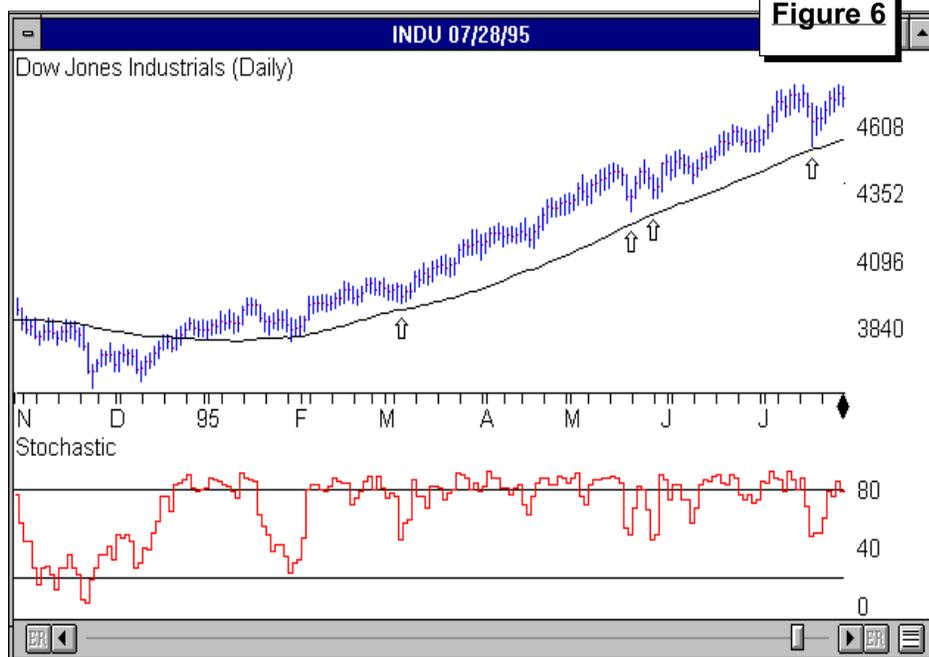
Performing the same type of analysis on MIR's weekly chart also shows that we should be concentrating on the long side. Using weekly data (Figure 8), we see the stock is trending higher over the long term. For an uptrending stock, we know to ignore sell signals from indicators that work best in trading markets. However, by making adjustments to the oversold

Table 4

DMI Signals for Louisiana Pacific

Buy Date	Buy Price	Sell Date	Sell Price	Percent Change
10/16/95	24.625	10/23/95	23.500	-4.569
10/24/95	24.375	11/15/95	23.375	-4.103
11/20/95	23.125	12/12/95	24.500	5.946
12/26/95	24.500	12/28/95	24.250	-1.020
01/02/96	25.250	01/10/96	23.875	-5.446
01/19/96	24.375	02/15/96	24.500	0.513
02/22/96	24.625	02/27/96	24.000	-2.538
03/04/96	24.375	03/21/96	24.250	-0.513
03/29/96	24.375	04/02/96	23.750	-2.564
04/16/96	24.375	04/17/96	23.750	-2.564
04/25/96	24.000	05/20/96	25.500	6.250

Figure 6

levels of these indicators, we see that MIR's Stochastic gave two oversold buy signals in the fourth quarter of 1995 as its value fell below and then rose above the 50 level.
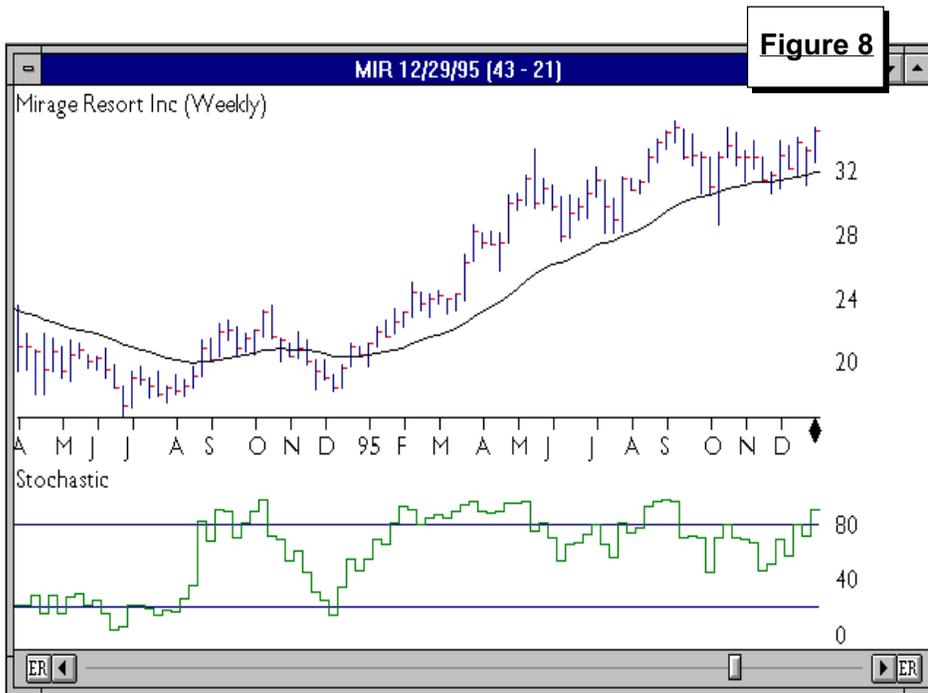
Conclusion

Indicators can be classified into two categories: those that work in trending markets and those that work in non-trending markets. Unless

adjustments are made to an indicator's interpretation, you can get into trouble using the wrong type of indicator in a given market environment.

An indicator that works well in a trading market will constantly give signals opposite the trend for a strong trending security. When a security is in a nice uptrend, ignore overbought

TOOLS OF THE TRADE *continued . . .*

Figure 7

MIR 12/29/95 (13 - 72)

Mirage Resort Inc (Daily)

Figure 8

MIR 12/29/95 (43 - 21)

Mirage Resort Inc (Weekly)

Stochastic

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sell signals. Conversely, if you applied an indicator that works well in trend-ing situations to a non-trending security, you would trade often but you would end up selling at about the same level as the purchase price.

It is best to apply non-trending type indicators to securities that are in a trading range and to apply trending type indicators to securities that are in a trend. When using non-trending type indicators, it is always best to follow the signals that are in the direction of the security's long-term trend. ∎

In addition to managed accounts, David Vomund publishes two advisories for stock and sector fund investing. For information, phone 702-831-1544.

MARKET ANALYSIS

AIQ's New Market Breadth Builder

By David Vomund

Two of the most valuable features in TradingExpert are the market timing buy and sells signals and the industry group capabilities. With the new Market Breadth Builder available in version 3.0, we can now derive even more from these features by applying AIQ's market timing model to industry groups and sectors.

The most accurate timing signals AIQ offers are the Expert Ratings for the overall market. These are more accurate than the stock timing signals because more data is used in the generation of market timing signals. Data available for markets includes advancing and declining figures, up and down volume figures, and the number of issues hitting new highs and new lows.

These figures can be downloaded for NYSE, AMEX, NASDAQ, and Toronto exchanges. Our standard market timing model uses the Dow Jones Industrials (DJIA) with NYSE breadth and volume but the same model can be applied to the NASDAQ or AMEX (see OBM, January 1996).

With the Market Breadth Builder, TradingExpert can calculate the additional data needed for our market timing model for any group of stocks such as an industry group, sector, or even a user created list. In other words, you can use the Market Breadth Builder to calculate the advancing, declining issues, up volume, down volume, and new highs and lows for a group of stocks. We can then compute indicators such as the Advance Decline Oscillator, TRIN, Advance Decline Line, Hi/Low, and Summation Index for groups, sectors, and user created lists.

The procedures for creating a new market are found in the TradingExpert Version 3.0 User Manual (page 3). In
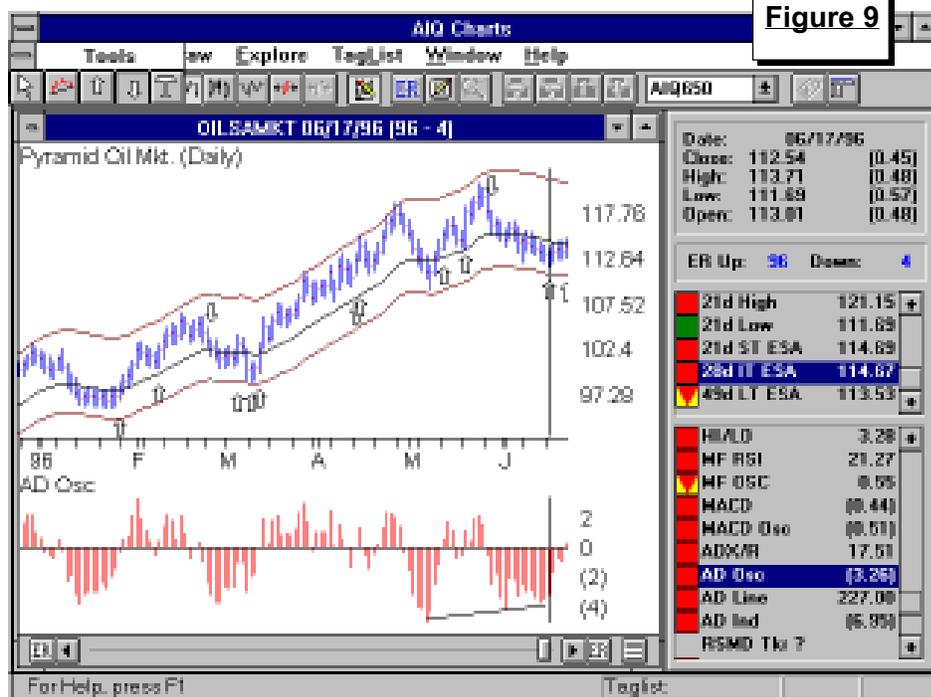

Figure 9

this article, we will discuss our recent analysis and show some examples.

We began by creating markets for the sectors in the AIQ Pyramid. TradingExpert's new Market Breadth Builder then calculated breadth and volume data for all the stocks within the different sectors. We chose sectors instead of groups because there are more stocks within a sector than there are within a group. The AIQ Pyramid groups typically are comprised of only four stocks so an Advance Decline Line isn't as representative as it is for a sector containing fifty stocks.

Figure 9 shows the AIQ Pyramid Oil sector. We've created a market out of this sector so an indicator like the Advance Decline Oscillator is now available. The Advance Decline Oscillator is calculated based on the stocks within the Oil sector. With breadth, volume, and new high/new low data calculated, we can then apply AIQ's market timing model to the Oil sector. Using another new feature in version 3.0 of TradingExpert, we've drawn arrows to show the buy and sell
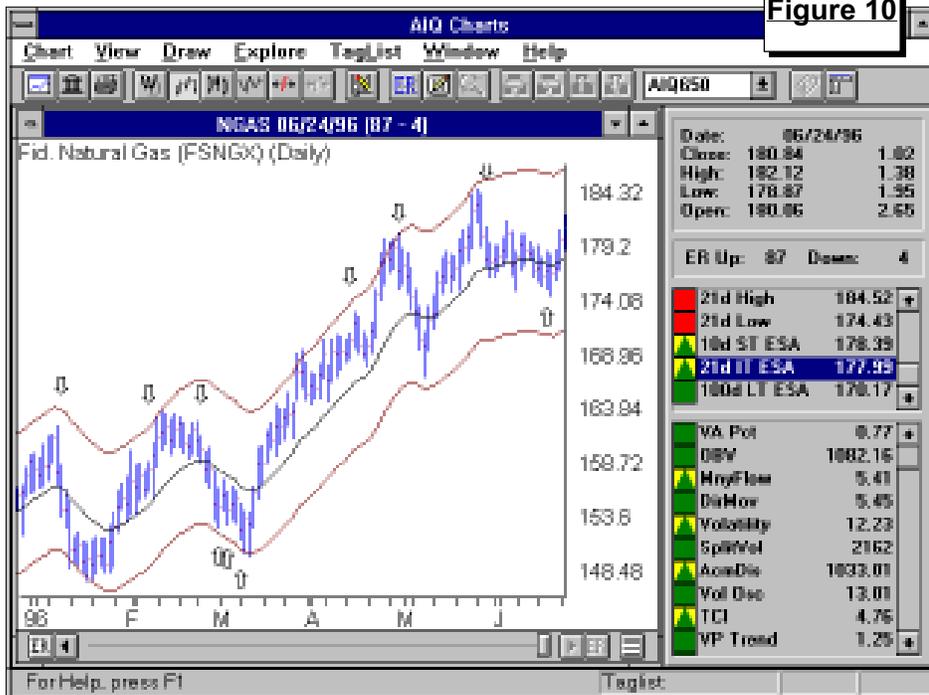
signals generated by the model.

We did the same analysis on a surrogate group that represents the Fidelity Select Natural Gas Fund. This surrogate group was comprised of 15 stocks. Again, we've drawn arrows to show when buy and sell signals occurred (see **Figure 10** next page).

I've said in the past that I don't use Expert Ratings for industry groups. With the new Market Breadth Builder, that is beginning to change. I've created a market for my surrogate groups that represent Fidelity Funds and am finding that I am beginning to look at the Expert Ratings more often.

Quantitative results on the signals are not yet available but I'm finding that the market model better identifies trends. Looking again at Figure 9, notice that no sell signals were registered during the March to May rally when the sector was hitting new highs.

The signals do not appear to be as accurate as they are when the model is applied to the DJIA and NYSE breadth,

MARKET ANALYSIS *continued* . . .

Figure 10

however. Since a group or sector is more volatile than the overall market, we are finding that the market timing model generates more signals for groups and sectors than it does for the DJIA. ■

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STOCK DATA MAINTENANCE

The following table shows past and future stock splits and large dividends:

Stock	Ticker	Split/Div.	Approx. Date	Stock	Ticker	Split/Div.	Approx. Date
Mirage Resorts	MIR	2:1	07/02/96	Chrysler Corp	C	2:1	07/16/96
Dura Pharmaceuticals	DURA	2:1	07/02/96	Hewlett Packard	HWP	2:1	07/16/96
Rainforest Cafe	RAIN	3:2	07/02/96	Computer Assoc.	CA	3:2	07/16/96
JLG Indus.	JLGI	3:1	07/02/96	Dayton Hudson	DH	3:1	07/18/96
Correction Corp Amer.	CXC	2:1	07/03/96	Systemsoft Corp	SYSF	2:1	07/18/96
Worldcom Inc.	WCOM	2:1	07/05/96	TSX Corp	TSXX	3:2	07/19/96
Shelter Components	SST	5:4	07/09/96	Petsmart Inc.	PETM	2:1	07/22/96
State Auto Financial	STFC	3:2	07/09/96	Cytec Indus.	CYT	3:1	07/24/96
Norrell Corp	MRL	2:1	07/09/96	Genzyme Corp	GENZ	2:1	07/26/96
Proxy Med	PILL	3:2	07/09/96	Wallace Comp Svcs	WCS	2:1	07/29/96
Lancer Corp	LAN	3:2	07/10/96	Technology Solutions	TSCC	3:2	07/30/96
Coastal Fin'l	CBSA	5:4	07/15/96	West Marine	WMAR	2:1	08/01/96
Coleman Co.	CLN	2:1	07/16/96	Knight Ridder	KRI	2:1	08/01/96
La Quinta Inns	LQI	3:2	07/16/96				

Trading Suspended:

Champion Parts Inc. (CREB)   Westcott Communications (WCTV)

Rea Gold (REOGF)   Bell Bancorp (Bell)

Smith Corona (SCO)