AIQ Opening Bell® Monthly

IN THIS ISSUE VOL. 7 ISSUE 12 DECEMBER 1998

Feature

Sections

The *Opening Bell Monthly* is a publication of
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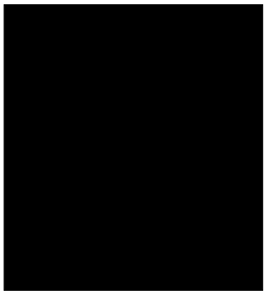
SHORT SELLING

DEVELOPING AN EFFECTIVE SCREENING TECHNIQUE FOR SHORT SELLING

By David Vomund



DAVID VOMUND

Most technical research is performed on the long side of the market. Nearly all our research for articles in the *Opening Bell* focuses on which indicators or trading systems work well for picking stocks that will increase in value.

Yet, money can be made on the short side of the market and technical trading systems can be highly effective for selecting short sale candidates. In this article, we'll develop an effective screening technique for shorting stocks.

> ***"....one of the most effective techniques for trading securities long is to buy a strong trending security on a pullback. Conversely, one of the most effective methods of selecting stocks to short is to look for stocks that are in overall downtrends but have recently rallied."***

An old adage on Wall Street is to "buy low and sell high." For short sales, the saying might be reworded as "sell high and buy low." Short sales are accomplished by borrowing stock certificates for use in the initial trade, then repaying the loan with certificates obtained in a later trade. Within a few days after a short sale has been made, the short-seller's broker must borrow and deliver the appropriate securities to the purchaser. In most cases, these borrowed securities come from the inventory of securities held in street name by the brokerage firm.

Let's clarify this with an example. At the start of the day, Mr. Williams owns 100 shares of IBM which are being held in street name at AG Edwards. Later in the day, a Ms. Hanna places an order with her broker, AG Edwards, to sell 100 shares of IBM short (Mr. Williams believes IBM's stocks will move higher while Ms.

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SHORT SELLING *continued* . . .

Hanna believes IBM will fall). In this case, AG Edwards takes the 100 shares of IBM that they are holding in street name for Mr. Williams and sells them for Ms. Hanna to some other investor, Mr. Jones. If Ms. Hanna is right and the price of IBM falls, she can buy her position back at a profit. Mr. Jones would have a paper loss since he is long the stock.

What if IBM pays a cash dividend during the short sale? IBM sends the dividend to Mr. Jones, the holder of the securities. However, since Mr. Williams still owns the IBM stock, he also expects a dividend check. In this case, the short seller, Ms. Hanna, pays the dividend amount to AG Edwards who in turn sends a dividend check to Mr. Williams.

There are risks to short selling. Stocks that are bought long cannot drop below zero and, therefore, do not involve a loss greater than the total investment. But a stock sold short could, theoretically, produce an unlimited loss since there is no ceiling on a stock's appreciation potential. Those who shorted internet stocks can appreciate this fact!

Since a short sale involves a loan, there is a risk to the brokerage firm that the loan will not be repaid. To protect the broker, the short seller does not have access to the money

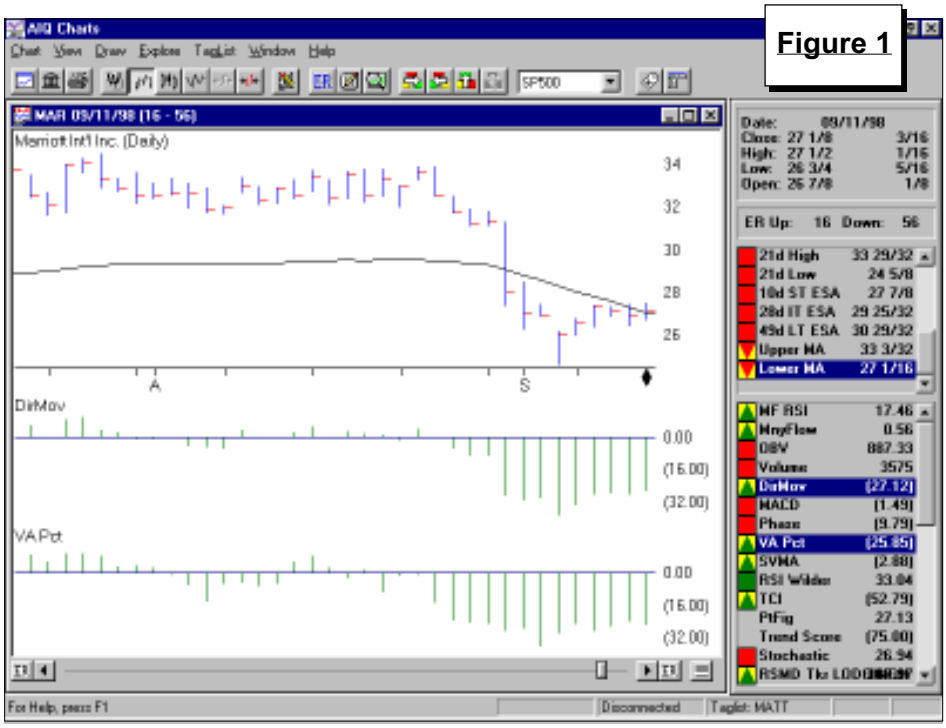

Figure 1

received from the initial sale of securities and a margin requirement must be met.

In developing our screening model for selecting short sale candidates, we will use AIQ's Expert Design Studio (EDS). EDS has hundreds of pre-built screening rules for all sorts of technical indicators.

In preparation for a speech at our October seminar, we tested all the pre-built rules for selecting securities to purchase on the long side. Since we are creating a model for shorting securities, we'll use the rules that were the least effective for going long securities.

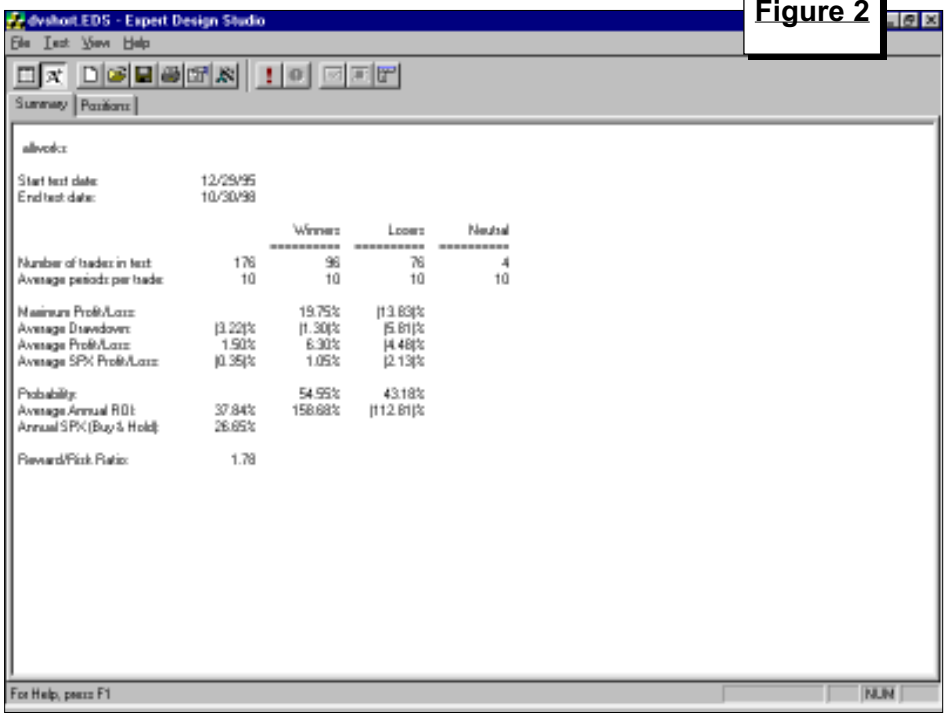

Figure 2

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SHORT SELLING *continued . . .*

Our testing showed that one of the most effective techniques for trading securities long is to buy a strong upward trending security on a pullback. Conversely, one of the most effective methods of selecting stocks to short is to look for stocks that are in overall downtrends but have recently rallied.

We'll use the Directional Movement Index (Dir Mov), developed by Welles Wilder, to measure the trend of the stock. The first EDS rule in our model requires that the Dir Mov be less than negative 25. This screen finds stocks trending lower since only downtrending stocks exhibit Dir Mov values in this region.

The second EDS rule selects stocks that have recently increased in value. To qualify, a stock must have risen above its lower trading band. The lower trading band is calculated by shifting a 20-day exponentially smoothed average lower by 10%.

By combining these two rules we'll get a list of downtrending stocks that have recently rallied.

The final rule in our EDS model uses the Volume Accumulation Percent (VA pct) indicator, developed by Marc Chaikin. This indicator looks at whether a security closes near its high or low value and then factors in volume.

This final rule states that the VA pct indicator must be less than negative 20. Stocks that pass this rule are ones that typically close in the lower half of their daily trading ranges and are under distribution.

An example of a stock that passes this three-rule screening is shown in **Figure 1**. On September 11, Marriott Int'l (MAR) was in a downtrend — its Directional Movement Index was less than negative 25. Yet the stock has recently rallied enough to rise above its Lower MA indicator. Finally, its Volume Accumulation Percent indicator was showing distribution as its reading was less than negative 20.

To evaluate the effectiveness of this short selling strategy, we backtested this approach using the S&P 500 database with a fixed 10-day holding period. Only stocks that pass the above three rules are shorted.

Figure 3

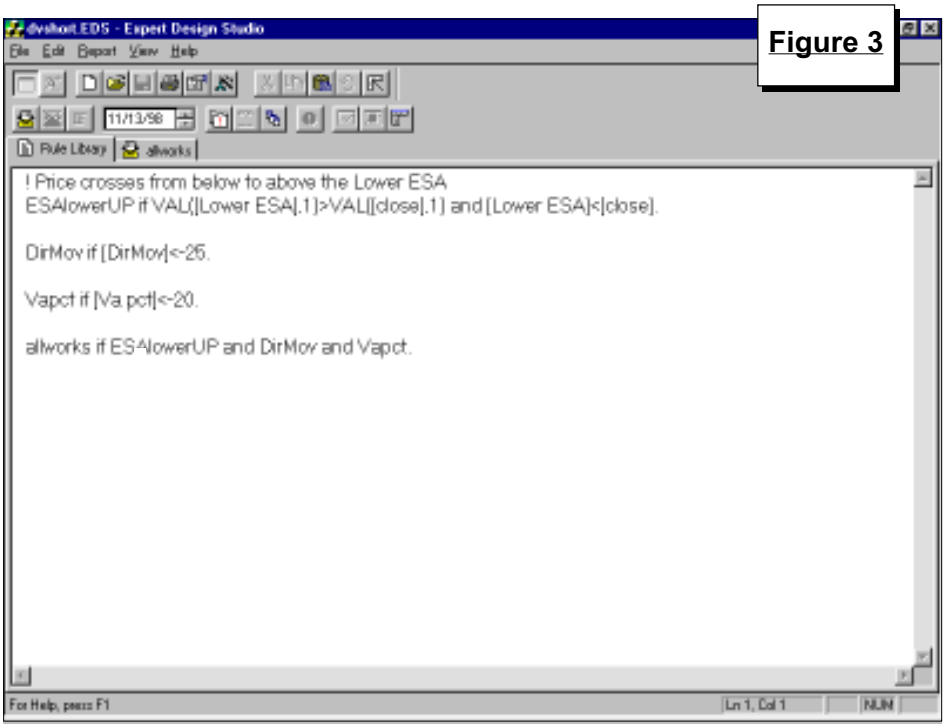


Figure 2 shows the backtesting results since 1996. The average trade using our three trading rules yields a profit of 1.5% per trade (i.e., the shorted stocks fell an average of 1.5%). In comparison, shorting the S&P 500 index instead of the selected stocks resulted in a loss of 0.35% per trade.

Amazingly, the annualized return of this model is greater than simply buying and holding the S&P 500, even though the market advanced at an average of 26% per year over the testing time period.

Those who prefer a longer holding period can use a stop that protects 90% of capital, and 90% of profits above 10%.

Actual trading returns will vary because our backtesting assumes individuals can act on every trade. Also, it is not always possible to short at the opening price the day after the signals. Nevertheless, this simple technique for selecting short sale candidates is highly effective.

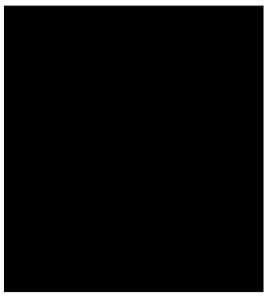
The final EDS model is found in **Figure 3**. Users can download this file from AIQ's web page at www.aiq.com. ■

David Vomund publishes VIS Alert, a weekly investment newsletter. For a sample copy go to ***www.visalert.com*** *or call (702) 831-1544.*

MARKET TIMING

It's All In The Rules Part II: Down Signals

By Dr. J.D. Smith



DR J.D. SMITH

At the end of last month's article (November 1998), we were looking at market timing charts from March 6 and the bullish rules that fired that day. The rules indicated that we should sit back, relax, and let our profits run. And so we did. That rosy outlook held for five more weeks until a down signal occurred on April 17 and another on April 21.

The chart for April 21 is shown in **Figure 4**. The chart is the Dow Jones Industrial Average and two breadth oscillators, the Up/Down Volume Oscillator and Sherman McClellan's Advance/Decline Oscillator. Both of these indicators reflect market breadth. The first measures breadth with advancing volume and declining volume, and the second measures breadth with advancing issues and declining issues.

These oscillators are the difference between the short-term and the intermediate-term exponentially smoothed averages of a breadth parameter. A positive value says that the short-term average breadth is increasing over the intermediate-term average. That is bullish. A negative value means that the short-term average breadth is lower than the intermediate-term average breadth. That is bearish.

"The rules that fire tell us the tale. We know what the market is doing and we have some idea of what to expect in the near term."

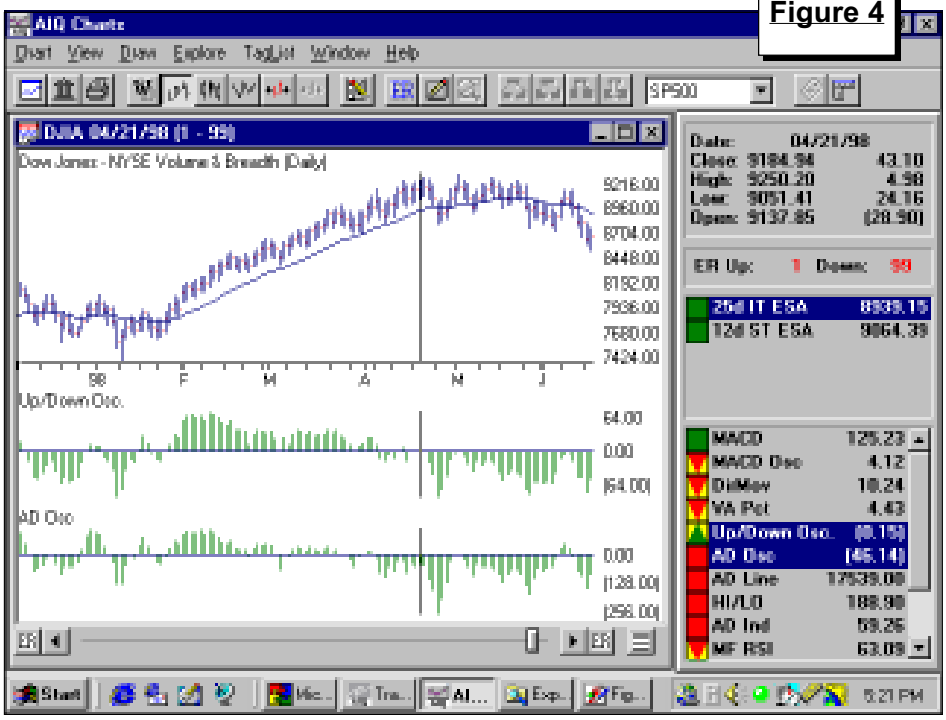
Looking now at the specific rules that fired on April 21, as shown in **Figure 5**, we see that they are nonconfirmation rules. Prices as measured by the Dow are at historic highs, but the two breadth oscillators are negative. The Dow is moving up but market breadth is eroding quickly. This appears to be a top. Market prices will not continue upward without breadth. Hence, the bearish Expert Rating.

Figure 6 illustrates a different situation. It shows the Dow Jones Industrial Average on May 5 with the same two breadth oscillators and the Advance/Decline Line. The prior day, May 4, recorded the highest intraday high in history. But the breadth indicators that day were positive. Low but positive. So the rule that appeared in Figure 2 did not fire. On May 5, a different set of bearish rules fired resulting in the downside Expert Rating.

These rules are shown in **Figure 7**. The Advance/Decline Line is heading down at the same time that the two breadth oscillators turn negative. Three breadth indicators turned bearish at the same time. Hence, the bearish Expert Rating. Without breadth, the market is just not going to continue its upward movement.

The first set of rules (Figure 5) were nonconfirmation rules, where prices were not confirmed by the breadth indicators. The same nonconfirmation structure, however, did not occur on May 4, and the next day the breadth indicators turned bearish although a price nonconfirmation has still not oc-

Figure 4



MARKET TIMING *continued* . . .

curred. A different structure, a different set of rules, but another downside Expert Rating.

The rules that fire tell us the tale. We know what the market is doing and we have some idea of what to expect in the near term.

"Where do the rules come from?"

One of the questions that I am often asked is: "Where do the rules used in the expert system come from?" The answer is twofold. The first source is the literature on technical and quantitative analysis. The second source is from some of the ideas that I developed based on my exposure to this literature.

The study of the stock market using technical analysis, quantitative methods, and rocket science, is not new and did not originate in the age of the personal computer. Richard Schabacker's book Technical Analysis and Stock Market Profits was first published in 1932. As a matter of fact, it was just republished last year and it reads today as well as it did 30 years ago when I first read it.

My role in the development of the expert system was that of knowledge engineer. I knew where I wanted to get, and when I chose the MYCIN paradigm, I knew how to get there. I had to extract knowledge from the literature and organize it into the form required by the expert system. In some cases, it was very easy.

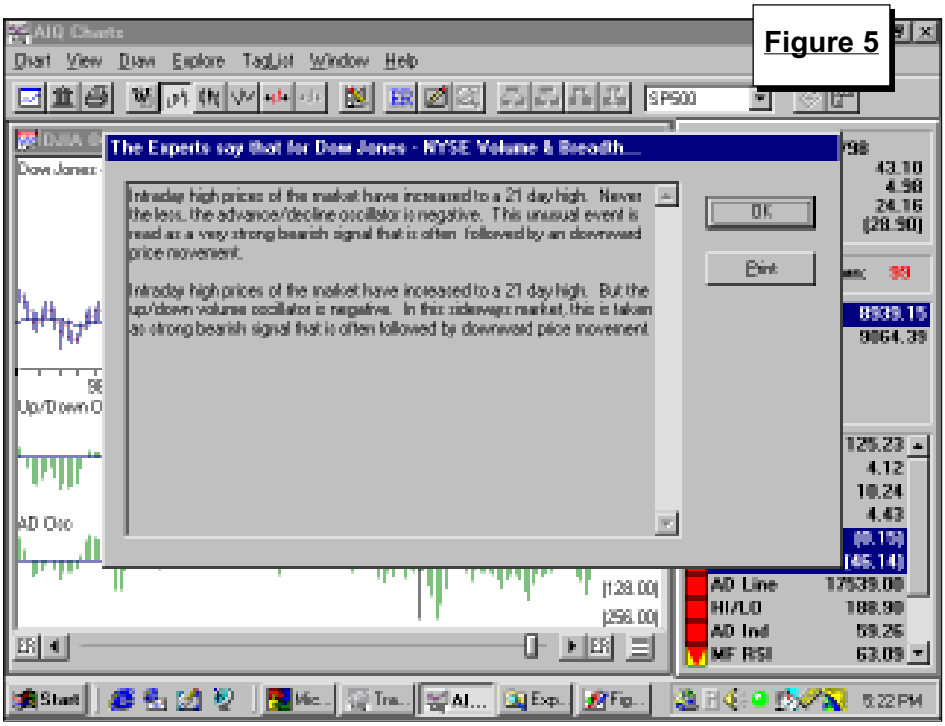


Figure 5

One example comes from Joe Granville's book New Strategy of Daily Stock Market Timing for Maximum Profit. Early in the book, there is a section labeled "Rules on the Advance/Decline Line." The No. 2 Rule in the list says: "When the Dow Jones Industrial Average advances in the face of a declining Advance/Decline Line, the market is going to go down."

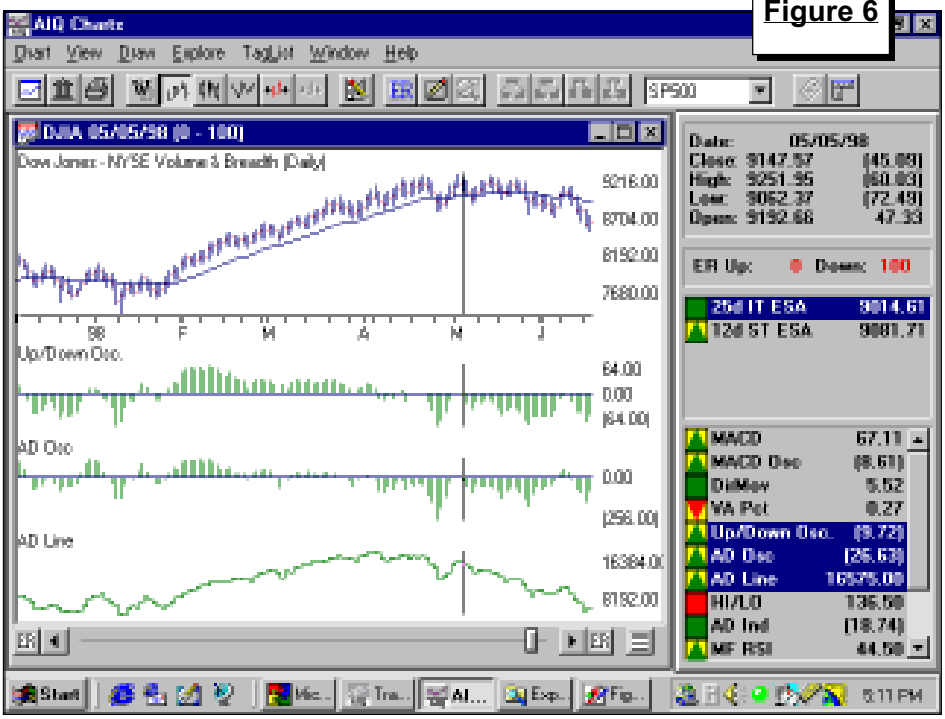


Figure 6

As you can see, being a knowledge engineer is sometimes not too difficult . In other cases, though, I designed rules based on relationships that I observed from the charts. An example is the first rule in Figure 7. You can consider this a trend following rule. The rule says that when the Advance/Decline Line turns down and the Advance/Decline Oscillator and the Up/Down Volume Oscillator are both negative, that constitutes a bearish rule. This is not the kind of rule you find in a text on technical analysis. On the other hand, in 1985 we had the capability of very powerful desktop computers and could easily evaluate this type of rule.

Because of the expert system structure, I could make this type of

Market Timing continued on page 6

MARKET TIMING *continued* . . .

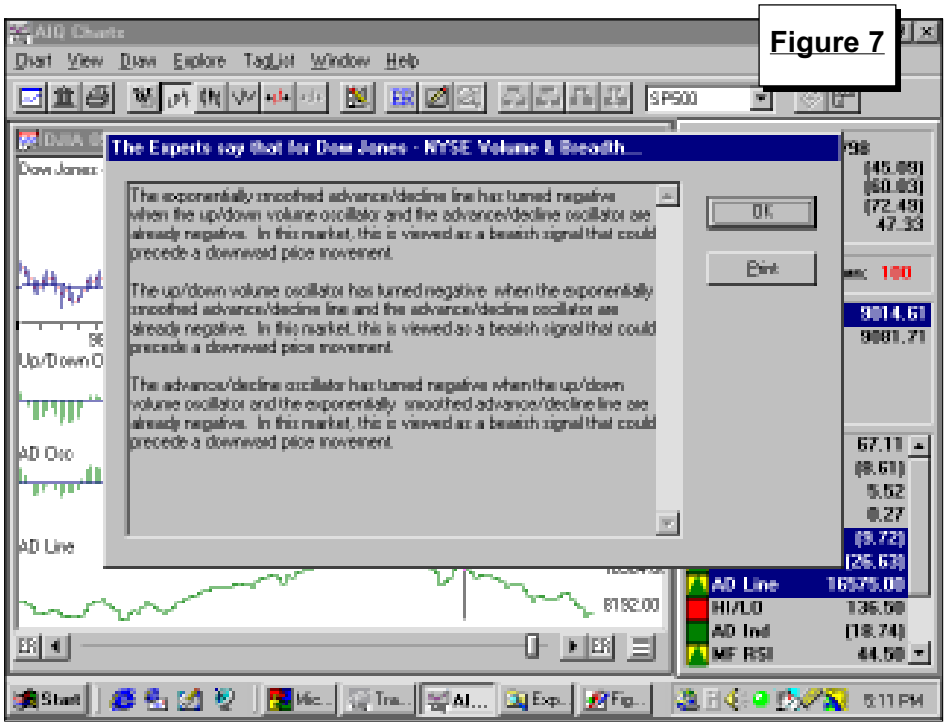
concept into a rule. The question then was the weight to apply when the rule fired. That involved backtesting the rule with historical data. I have market data back to 1970, which has plenty of bullish and bearish periods.

I also tested the rules in five types of trends — strong up, weak up, sideways, weak down, and strong down. The reliability of each rule was determined for each type of trend. That became the rule weight. The individual rule was then combined with the rest of the rule base and the entire system backtested over the full history.

"If it ain't broke, don't fix it."

Another question I get concerns whether I will develop a new and improved market timing expert system. My answer is: "Why?"

I am of the "if it ain't broke, don't fix it" school. If the expert system continues to perform as it did in 1998, it means the structure of the market has not changed since 1987. What matters today is what mattered then.



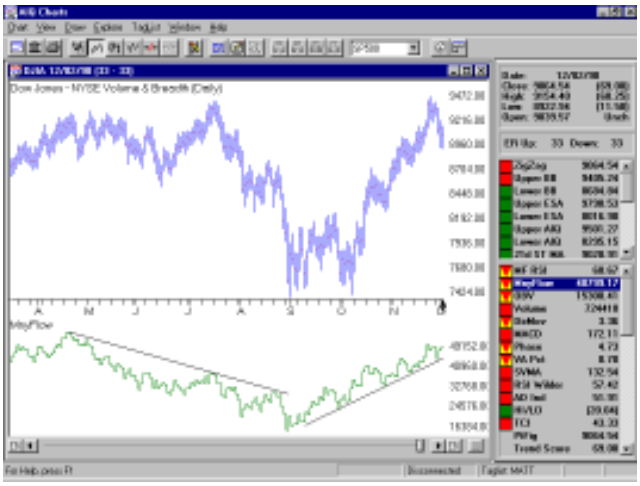
Namely, trend direction, trend strength, price momentum, volume, and breadth. What was true in 1987 is still true today and the rules of the expert system reflect those factors.

I am not alone in this belief. Ralph Edwards in the forward to the first edition of Technical Analysis of Stock Trends written in 1948 by himself and John Magee said: "The stock market goes right on repeating the same old movements in much the same old routine." That says it all. ■

MARKET REVIEW

Confidence in the system we use is a critical component of our trading success. Every trading system experiences time periods when it fails to work. Those who have confidence in their system stick with it. Those who don't, stop following the system. Those who never become confident continually change systems. They abandon each system at its low point, always being one step out of sync.

Recently, the market has tested the confidence of TradingExpert owners. TradingExpert's market timing model got investors out of the market right after the July top but then signaled a buy too early. Right at the low on October 8, the system gave a buy signal, which was confirmed by the Phase the next day. Those who continued to follow the system fully participated in the market's recovery to new highs. Others were left behind in disbelief. In the end, the timing model performed better than a buy-and-hold strategy.



After the October 8 buy signal, the S&P 500 has rallied 23% and the Nadsaq Composite has rallied 40%. A continuation buy signal was registered on November 19.

One of the best market timing indicators this year is Money Flow. This indicator topped out in April and proceeded to head lower even as the Dow made a new high in July. Money Flow also gave an indication that the market was forming a bottom. Its low came on August 31 and then it continually moved higher. When the market tested its lows in early October, Money Flow was well off its lows. ■

MARKET ANALYSIS

S&P 500 and Nasdaq Trading Strategy Using RSMD Indicator

By David Vomund

In last month's issue, we discussed how the RSMD indicator could be used to help determine when it is best to hold large company stocks and when it is best to hold Nasdaq stocks. This month, we'll use this indicator again to create a model that trades the largest S&P 500 stocks and the largest Nasdaq stocks.

To quickly review how the RSMD indicator works, let's look at a chart of the Nasdaq Composite. In **Figure 8** we have plotted the Nasdaq Composite along with its RSMD SPX indicator.

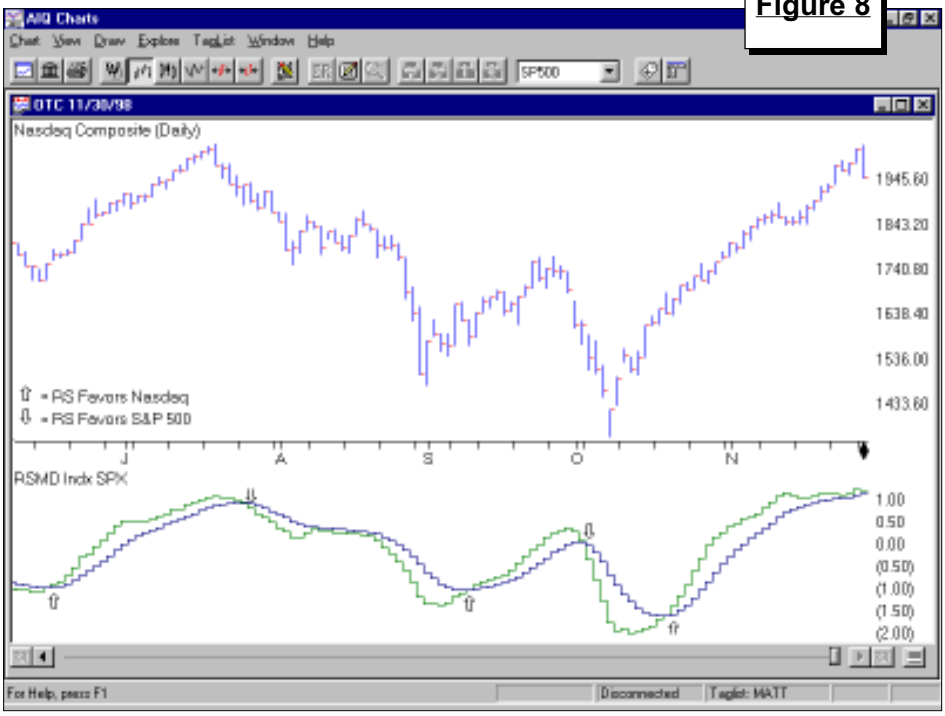
When the RSMD indicator is rising and above its signal line, then Relative Strength favors the Nasdaq stocks. When the RSMD indicator is falling and is below its signal line, then Relative Strength favors the S&P 500 stocks. We have drawn arrows which represent the points at which Relative Strength changes direction.

By using the RSMD indicator, we can develop an effective equity trading system which trades either S&P 500 stocks or Nasdaq stocks. In our model, there is no market timing element so we'll always remain fully invested.

When the RSMD indicator points toward strength in the S&P 500 then we limit our purchases to the stocks that are in the S&P 500. When the indicator changes direction and points toward strength in the Nasdaq, we'll limit selections to only Nasdaq stocks.

Both the S&P 500 and the Nasdaq Composite are capitalization weighted indexes. That means that the largest companies have a great influence on the indexes while the smaller companies have very little influence.

Figure 8



As an example, the 50 largest stocks in the S&P 500 influence 50% of the price movement in the index. If we are going to trade stocks based on the readings of the S&P 500 and Nasdaq Composite indexes, then we want to limit our stock selections only to those that greatly influence the index.

Here is our strategy:

When the RSMD indicator points toward outperformance in the S&P 500 index, we run the daily Relative Strength-Short Term report on the list of the 50 largest capitalized S&P 500 stocks. The top five stocks are purchased and held until the RSMD points toward outperformance in the Nasdaq Composite.

When the indicator favors the Nasdaq Composite, then the Relative Strength report is run on a list of the Nasdaq 100 stocks. The top five are purchased and held until the indicator points toward strength in the S&P 500.

NOTE: The Nasdaq 100 contains 100 of the largest capitalized stocks in the Nasdaq. A list of the Nasdaq 100 can be found at www.nasdaq.com. Standard & Poor's publishes a list of the largest S&P 500 stocks in the *Index Focus* publication. Standard & Poor's can be reached at 800-221-5277, ext. 4098.

A review of this year's trading results are found in **Table 1**. The purchase dates and sell dates correspond to the arrows found on the RSMD indicator in Figure 8. The average percentage return of the five stocks are listed for every series of trades. Also listed are the ticker symbols of the stocks that were purchased.

The 1998 return excluding commissions and slippage was 50.5%. Buying Yahoo every time the Nasdaq outperformed didn't hurt perfor-

Market Analysis continued on page 8

MARKET ANALYSIS *continued . . .*

mance!

We only tested this strategy for the current year because the largest 50 Standard & Poor's stocks and the Nasdaq 100 stocks change over time and a backtest over several years becomes invalid. Yet, we expect this strategy will continue to perform well.

Those who run this strategy or a similar strategy can expect volatility since the model is always fully invested in high relative strength stocks. Also, it is subject to whipsaws, which can happen when the RSMD indicator moves sideways. ■

Table 1

1998 Trading Results
(through November 30)

Purchase Date	Sell Date	RS Favors	Return (%)	Stock Holdings
12/31/97	03/03/98	OTC	10.01	YHOO,TCOMA,RXSD,QWST,USAI
03/03/98	03/26/98	S&P 500	7.20	DELL,LU,MWD,WMT,MSFT
03/26/98	04/07/98	OTC	-0.65	LVLT,YHOO,AAPL,PSFT,PAYX
04/07/98	04/15/98	S&P 500	2.66	LU,TRV,F,PFE,MWD
04/15/98	05/05/98	OTC	-5.15	YHOO,LVLT,PSFT,SPOT,AAPL
05/05/98	06/17/98	S&P 500	1.73	DELL,LU,PFE,DIS,F
06/17/98	07/28/98	OTC	16.45	ASND,NOVL,YHOO,AAPL,DELL
07/28/98	09/11/98	S&P 500	-10.96	DELL,LU,WLA,MSFT,F
09/11/98	10/05/98	OTC	9.29	YHOO,DELL,AAPL,BGEN,APCC
10/05/98	10/21/98	S&P 500	-4.77	DELL,BLS,SBC,AIT,BEL
10/21/98	11/30/98	OTC	20.18	YHOO,GENZ,BGEN,MUEI,CMCSK

1998 Return with Compounding = **50.54%**

STOCK DATA MAINTENANCE

The following table shows stock splits and large dividends:

Stock	Ticker	Split/Div.	Approx. Date
Bergin Brunswig	BBC	2:1	12/02/98
Camden Nat'l	CAC	3:1	12/07/98
Schwab-Charles	SCH	3:2	12/14/98
Providian Financial	PVN	3:2	12/16/98
Cybex Computer Prod.	CBXC	3:2	12/16/98
Time Warner Inc.	TWX	2:1	12/16/98
Kennedy-Wilson Inc.	KWIC	3:2	12/16/98
Chemical Financial	CHFC	5:4	12/17/98
Captial Bancorp Ltd.	CBCL	6:5	12/21/98
Sara Lee	SLE	2:1	12/22/98
Union BanCal Corp.	UNBC	3:1	12/22/98
BellSouth Corp	BLS	2:1	12/28/98
Lone Star Ind.	LCE	2:1	12/29/98
KN Energy	KNE	3:2	01/04/98
Auto Data Proc.	AUD	2:1	01/04/98
Commericial Nat'l Fin'l	CFB	2:1	01/04/98
Amazon.com	AMZN	3:1	01/05/98

Name/Ticker Changes:
Jefferson Smurfit (JJSC) to Smurfit-Stone Container (SSCC)
Protection One (ALRM) to Protection One Inc. (POI)
Sun Co. Inc. (SUN) to Sunoco Inc (SUN)

Trading Suspended:
Allied Group (GRP), Chrysler (C), Depuy Inc. (DPU), Dravo Corp. (DRV), Galoob Toys (GAL), Giant Food (GFS.A), Just Toys Inc. (JUST), Southern New England Tele. (SNG), Star Banc Corp (STB), Stone Container (STO), Waste Mgmt. Int'l (WME), Willis Carroon Group (WCG)