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Feature

Sections

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AIQ Systems
David Vomund, Chief Analyst
P.O. Box 7530
Incline Village, Nevada 89452

MARKET TIMING BACKTESTING

AIQ MARKET TIMING FOR 2000 — NOT PERFECT BUT BETTER THAN S&P 500

DAVID VOMUND

By David Vomund

Year 2000 was a great year to incorporate market timing. In fact, a good market timer would have been out of the market for a good part of the year! Throughout the year, the S&P 500 fell 10% and the only time the overall market was strong was at the start of the year. The AIQ timing model outperformed the market in 2000 but it was far from perfect.

> ***"The 2000 return (for AIQ model) was negative 5.14%. That compares to an S&P 500 buy-and-hold return of negative 10%"***

A historical backtest of the market timing model reveals that the highest returns come from simply using the market timing model without confirmation. That is, you buy when an upside signal of 95 or greater is registered and you sell when a downside signal of 95 or greater is registered, using ticker DJIA. The reason people use confirmation is that it helps to avoid some of the bad signals.

The confirmation technique that most people use utilizes the Price Phase indicator. With this technique, a buy signal is not acted on until the Phase indicator increases. Conversely, a sell signal is not considered a sell until the Phase indicator decreases.

As is the case with all bad signals, the slower the confirmation indicator the better the results. The problem with too slow a confirmation technique, however, is that most of the Expert Rating signals are good. By applying too slow of a confirmation, you buy/sell too late after a good signal and overall returns are lower.

An example of this is found in **Figure 1**. On January 5, a 99 buy signal was registered but the signal was not initially confirmed as the

Market Timing Backtesting continued on page 2

MARKET TIMING BACKTESTING *continued* . . .

Phase indicator was decreasing. The market rallied immediately after the signal and confirmation came two days later when the Phase indicator increased. Missing a two day rally isn't bad but when that happens several times in a year it can make a difference.

The 2000 buy and sell signals are listed in **Table 1**. The results assume that you buy the S&P 500 on the day a buy signal of 95 or greater is registered, and you sell on the day a 95 or greater sell signal is registered. The 2000 return was negative 5.14%. That compares to an S&P 500 buy-and-hold return of negative 10%. If you apply a Phase indicator confirmation to the market timing signals, the return becomes negative 13.57%.

Nasdaq 100 Timing Model

In the May 1999 issue of the *Opening Bell*, we introduced the concept of using AIQ's regular market timing model on the Nasdaq 100 index. In review, AIQ's market timing system needs price, breadth, and volume in its Expert System. The Nasdaq Composite has all of these but Nasdaq breadth isn't representative because it is calculated from too many small-cap issues that have no influence on the Composite. To demonstrate this problem, the Nasdaq Composite rose 85% in 1999 but the Nasdaq's Advance/Decline Line hit new lows that whole year. By relying on the Advance/Decline Line, a trader would have missed the largest one-year gain in the Nasdaq's history. We solved this problem by using the Nasdaq 100 index instead of the Nasdaq Composite. The Nasdaq 100 index (NDX) contains the large capitalization stocks that move the Nasdaq Composite. Since the Nasdaq 100 index has no breadth or volume, TradingExpert is used to calculate breadth and volume.

Using AIQ's Market Breadth Builder to create a Nasdaq 100 market, we plot the actual Nasdaq

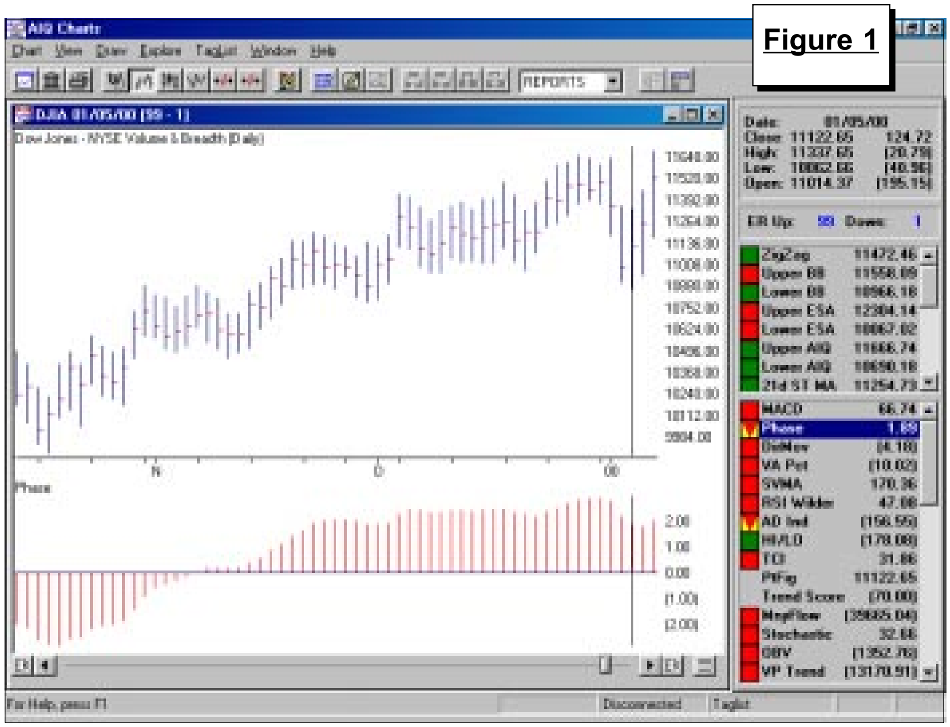

Figure 1

Table 1

Market Timing Model - No Confirmation

Entry Date	Expert Rating	Exit Date	Expert Rating	S&P500 % Change
01/05/00	99	01/24/00	100	-0.04
01/31/00	98	04/14/00	100	-2.72
04/20/00	97	05/03/00	100	-1.36
05/05/00	98	05/19/00	99	-1.79
05/26/00	98	06/16/00	98	6.27
06/30/00	97	07/24/00	95	0.67
08/01/00	95	11/10/00	100	-5.01
11/22/00	95	11/30/00	96	-0.56
12/04/00	97	12/31/00	n/a	-0.35

2000 Return = -5.14%

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G.R. Barbor, Editor
P.O. Box 7530
Incline Village, NV 89452

MARKET TIMING BACKTESTING *continued . . .*

100 Index using the NDX ticker and have TradingExpert calculate breadth and volume based on the 100 stocks that comprise the index. The Advance/Decline Line on the Nasdaq 100 market works because all the low price and low volume stocks that distort the Nasdaq Composite are excluded from the calculation.

A list of the Nasdaq 100 stocks can be found on the Nasdaq web site at *www.nasdaq.com*. An explanation of how to create a market can be found in the TradingExpert Pro User Manual, page 52.

For this market timing model, we used a list of the Nasdaq 100 stocks as of December 31 of the preceding year. Although the stocks that make up the Nasdaq 100 change over time, we kept our list the same for the remainder of the year. This model correctly called the downturn in the fall of 1988 and kept investors in the Nasdaq for the 1999 fourth quarter rally. In 2000 its winning streak continued as it correctly called most of the April selloff. Unfortunately, late in the year it frequently whipsawed and was in the market for most of the October and November selloff.

A list of the Nasdaq 100 signals is found in **Table 2**. With the increased volatility of the Nasdaq, the model was more active than normal. Following all the signals would be very frustrating. Using this trading model, the 2000 return was negative 29.47%. That's a big loss but it is better than the negative 37% loss in the Nasdaq 100 index.

Users can download the model that we will use for 2001 by visiting *www.aiq.com*. Click on *Educational Products* and then *Educational Seminars*. At the bottom of the page click on the *Tahoe 2000 Seminar Attendees*. ■

Table 2

Nasdaq 100 Model
No Confirmation

Entry Date	Expert Rating	Exit Date	Expert Rating	Nasdaq 100 %Change
12/31/99	N/A	01/12/00	97	-6.20
01/18/00	99	01/21/00	97	2.45
02/17/00	95	03/29/00	99	7.01
04/18/00	99	05/02/00	98	-2.38
05/16/00	98	05/18/00	95	-6.05
05/22/00	98	06/23/00	100	12.88
07/06/00	100	07/19/00	100	1.34
07/31/00	96	08/10/00	95	-0.39
08/15/00	95	09/06/00	100	3.09
09/19/00	100	10/25/00	99	-17.25
11/02/00	97	11/16/00	100	-11.58
11/24/00	100	11/27/00	96	-2.16
12/05/00	99	12/14/00	99	-7.50
12/22/00	100	12/29/00	97	-3.86

2000 Return = -29.47

STOCK DATA MAINTENANCE

The following table shows past and future stock splits:

Stock	Ticker	Split	Approx. Date
Christopher & Banks	CHBS	3:2	02/05/01
Graco Inc.	GGG	3:2	01/07/01
Apollo Group	APOL	3;2	02/07/01
Checkpoint Software	CHKP	3:2	02/13/01
Southwest Airlines	LUV	3:2	02/16/01
MDC Holdings	MDC	10%	02/19/01
Gilead Sciences	GILD	2:1	02/22/01
EPIQ Systems	EPIQ	3:2	02/26/01
Amer. Eagle Outfitters	AEOS	3:2	02/26/01
Atlantic Coast Airlines	ACAI	2:1	02/26/01
SEI Investments	SEIC	2:1	03/01/01
Wrigley (Wm) Jr.	WWY	2:1	03/01/01

Trading Suspended:
Battle Mountain Gold (BMG), Carmike cinemas (CKE), Columbus Energy (EGY), Continental Airlines (CALA), Fog Dog Inc. (FOGD), Getty Petroleum Marketing (GPM), Golden Star Resources (GSR), J.P. Morgan & Co. (JPM), Lindberg Corp (LIND), Shaw Industries (SHX), Time Warner (TWX), Worthington Homes Inc. (WHI)

Name/Ticker Changes:
America Online Inc. (AOL) to AOL Time Warner Inc. (AOL)
Chase Manhattan Corp (CMB) to J.P. Morgan Chase & Co. (JPM)
DLJdirect (DIR) to CSFBdirect (DIR)
Inprise Corp (INPR) to Borland Software (BORL)

TESTING OUR TRADING SYSTEMS

How Are They Performing? An Update Of Previously Published Strategies

By David Vomund

At the beginning of each year, we take the opportunity to update our readers on performance figures from trading systems that were published in the *Opening Bell*. This is our way of being held accountable for our published studies.

The article on page one in this issue covered market timing. This article tests the trading systems that use TradingExpert Pro's *Reports* module to select which stocks to purchase.

Next month, we'll review *Expert Design Studio* strategies.

Weighted Action List Trading Strategy

The first trading system that we'll update is the one that we've tracked since the early 1990s. The system combines AIQ's market timing model with the Weighted Action List report. For this strategy, we run the Weighted Action List stock report every time there is an AIQ market timing buy signal (an Expert Rating of 95 or greater on ticker DJIA). Only the first market timing signal in a string of buy signals is used and no confirmation is applied to the signals.

When a market timing buy is registered, the top five stocks that appear on the Weighted Action List with Expert Rating signals greater than 95 are purchased.

These stocks are held until a market sell signal (Expert Rating of 95 down or greater) is registered, at which time all positions are moved to cash. Only Standard & Poor's 500 stocks are purchased.

To obtain percentage return figures, we make the following assumptions:

- *The buy and sell points for the stocks are the opening prices the day after the market timing Expert Rating.*
- *Commissions are factored in using a commission rate of $20 per trade.*
- *Slippage, dividends, and money market interest received are not factored in.*

Since this strategy was first published, we have continuously updated the trades so the stock purchases reflect the information that was available at the time. This is more accurate than running a backtest using today's S&P 500 stocks.

In 2000, the Weighted Action List system returned 4.94%. This low return would normally imply poor performance. Considering the S&P 500 fell 10% during the year, however, the positive return is exceptional.

Table 3 shows the individual trade dates and the securities that were purchased.

Like any strategy, this model has had outstanding years and has had bad years. Those people who kept a long-term time horizon and followed the strategy through good and bad times have seen outstanding returns. The 9-year annual rate of return for this technique is 26.06%.

Table 4 shows a yearly breakdown. For those who want to see trade-by-trade details, call your

Table 3

2000 Results -Weighted Action List

ER Buy Date	ER Sell Date	S&P 500 % Change	Stocks % Change	Portfolio Holdings (Stock Symbols)
01/05/00	01/24/00	-0.04	3.10	FDX,UCL,GDT,TX,GDT
01/31/00	04/14/00	-2.72	-3.07	ENE,FITB,ARC,FDC,BOL
04/20/00	05/03/00	-1.36	2.27	ADCT,TROW,SFA,PCS,RDC
05/05/00	05/19/00	-1.79	-7.74	SFA,TEK,KSU,NSM,OMC
05/26/00	06/16/00	6.27	11.73	VRTS,U,PCS,LLTC,CA
06/30/00	07/24/00	0.67	-2.98	ABX,TEK,K,SYY,AES
08/01/00	11/10/00	-5.01	10.35	QCOM,APA,PFE,CLX,STJ
11/22/00	11/30/00	-0.56	2.62	GDT,GLW,P,OK,SGP
12/04/00	12/31/00	-0.35	-11.00	PSFT,PALM,CHIR,QCOM,CVG

2000 Return = 4.94%

TESTING OUR TRADING SYSTEMS *continued* . . .

AIQ sales representative at 800-332-2999.

Relative Strength Report Trading Strategy

Another mechanical strategy (introduced in the April 1997 *Opening Bell*) uses the Relative Strength Report. This strategy is exactly the same as the previously described strategy except the Relative Strength Report is used instead of the Weighted Action List.

When an AIQ market timing buy signal is registered (Expert Rating of 95 or greater on ticker DJIA), the Relative Strength-Long Term report is run on a database of S&P 500 stocks.

The top five stocks are purchased and held until the AIQ market timing model registers a sell signal. Once the model moves to a sell, all stocks are sold at the opening price the following morning.

This strategy is more volatile than the Weighted Action List strategy because high relative strength stocks can fall like a rock in a bearish market. This model also tends to buy stocks in the same industry so there is less diversification.

In a year when value outperformed growth it comes as no surprise that this model fell with the market. This strategy fell -9.46% during the year, which is about equal to the S&P 500.

Table 5 gives yearly trade-by-trade results for the Relative Strength Report strategy.

Since this strategy uses the Long Term section of the Relative Strength report, technology stocks continued to be purchased until about November. If we were to use the Short Term section, the model would have rotated out of technology stocks earlier and results would likely have improved. ■

Table 4

Percentage Returns—AIQ WAL Strategy Summary Results

Year	AIQ Trading	S&P 500
92	13.53	4.46
93	17.26	7.06
94	35.75	-1.54
95	18.90	34.11
96	27.88	20.26
97	37.73	31.01
98	76.23	26.67
99	2.32	19.53
00	4.94	-10.14
Average =	26.06	14.60

Table 5

2000 Results - Relative Strength

ER Buy Date	ER Sell Date	S&P 500 % Change	Stocks % Change	Portfolio Holdings (Stock Symbols)
01/05/00	01/24/00	-0.04	3.10	"FDX,UCL,GDT,TX,GDT"
01/05/00	01/24/00	-0.04	10.58	"QCOM,ORCL,YHOO,NTAP,CTXS"
01/31/00	04/14/00	-2.72	-39.04	"QCOM,CNXT,NTAP,PEB,NSM"
04/20/00	05/03/00	-1.36	17.27	"AMD,SEBL,ORCL,MU,NTAP"
05/05/00	05/19/00	-1.79	-8.74	"AMD,SEBL,NTAP,ORCL,VRTS"
05/26/00	06/16/00	6.27	18.15	"AMD,NTAP,VRTS,MU,NGH"
06/30/00	07/24/00	0.67	-3.28	"BVSN,JDSU,SEBL,NTAP,KG"
08/01/00	11/10/00	-5.01	4.71	"NTAP,JDSU,PEB,VRTS,SEBL"
11/22/00	11/30/00	-0.56	-2.89	"HRC,DYN,PWER,FRX,PAYX"
12/04/00	12/31/00	-0.35	5.52	"DYN,HRC,PWER,EOG,PSFT"

2000 Return = -9.46%

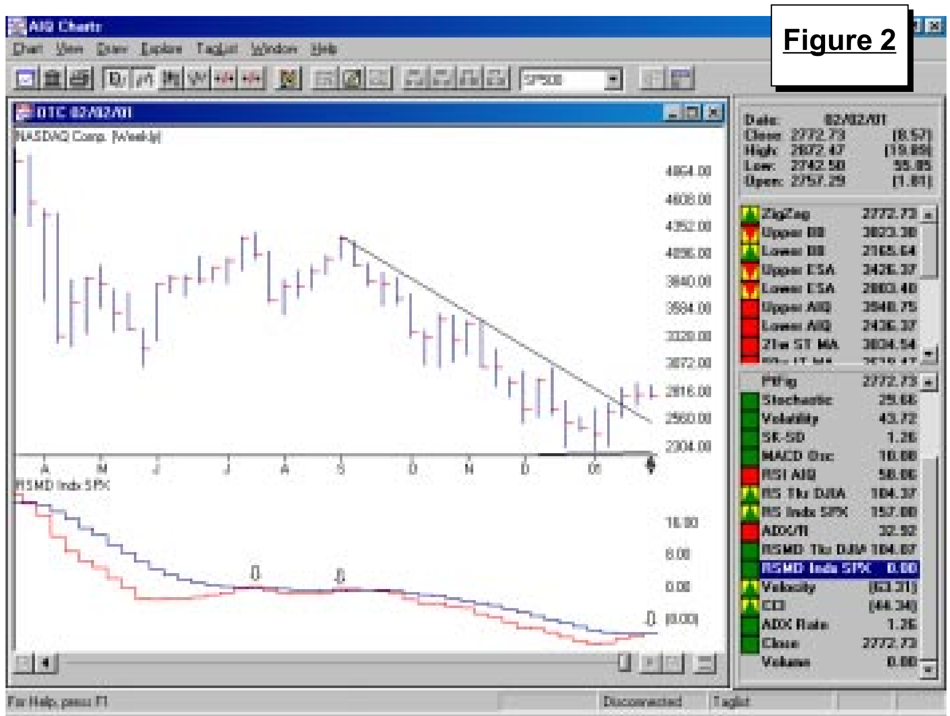
MARKET REVIEW

It Pays to Look Beyond Market Timing Signals

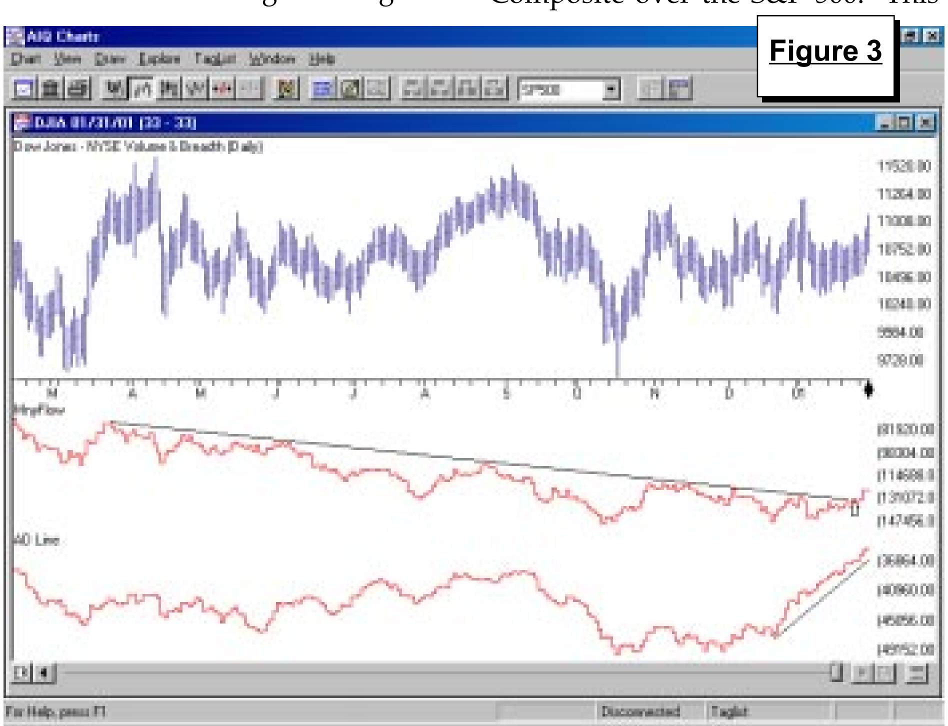
The AIQ market timing model began the month of January with a 100 sell signal on January 2 and this was the only signal given the entire month. Although the market started the month extremely weak, the Federal Reserve unexpectedly lowered interest rates on January 3 and as a result the overall market environment improved. For the month, the S&P 500 rose 3.5% and the Nasdaq Composite rose 12.2%.

Those who rely on the timing model exclusively were in cash the entire month. Although the gain in the S&P 500 was relatively small, the fact that the Nasdaq made a nice recovery while the AIQ timing model remained on a sell shows that it sometimes pays to look beyond the ER signals.

For people who incorporate their own analysis, there were positive developments during the month. Both the S&P 500 and the Nasdaq Composite rose above their resistance trendlines, the trendlines connecting the August and November highs (**Figure 2**). This was the first time in five months that the Nasdaq was able to rise above resistance. Another positive was that the weekly RSMD began to favor the Nasdaq Composite over the S&P 500. This is seen in Figure 2 where the indicator rises in value. During the 2000 Nasdaq bear market, each rally lost steam when the RSMD SPX's fast line was about to move above the slow line. At the end of January, the indicator was threatening a crossover which, should it occur, will indicate a change in market environment.



Some of the indicators turned bullish as well. Money Flow broke above a 10-month downtrend near the end of January (**Figure 3**). This implies that there are finally some signs of accumulation. Also, the Advance Decline Line moved sharply higher, meaning that many stocks advanced during the month.



The best performing group in January was Retail-Electronics, increasing 55%. Telecommunication stocks increased 45%. Plenty of groups lost money as well. Oil-Exploration lost 17% and Health-Managed Care, a star performer last year, fell 15% in January. ■

QUOTES FROM THE OPENING BELL

THE BEST OF 2000 — THESE 'WORDS OF WISDOM' ARE IMPORTANT TO REMEMBER

We've published the *Opening Bell* newsletter since 1992. During this period, we've interviewed dozens of AIQ users and well-known analysts. The trading perspective they provide is invaluable. Some of our best interviews were published in 2000. Here are some of our favorite quotes with additional comments. These "words of wisdom" are valuable insights for both the novice as well as veteran trader.

Roy Blumberg – February 2000

"It is best to be a multiple position investor rather than all or nothing. When I see the extremes then I'll take positions, but usually in two or three steps. At a market extreme I'll put part of my reserves to work. More funds are moved when the market starts to stabilize and then a large part is invested when the market actually turns up. That way, if I'm wrong and the market extreme turns out to not be the low, I still have a lot of reserves to come back at another point. … No indicator is 100% accurate so it is better to try to be generally right rather than perfectly right. Trying to be perfectly right opens up the possibility of being perfectly wrong."

In 2000 it was very easy to be perfectly wrong. Most people expected that the Nasdaq weakness was near bottom by the fall. Little did they know that the worst was yet to come. When you buy or sell big positions in stocks, risk is lowered by legging into/out of the trade rather than using an "all or nothing" mentality.

"It is best to be a multiple position investor rather than all or nothing. When I see the extremes then I'll take positions, but usually in two or three steps. That way, if I'm wrong and the market extreme turns out to not be the low, I still have a lot of reserves to come back at another point." — Roy Blumberg

Blumberg Feb. 2000 Cont'd

"Optimization looks great if you look in the mirror but if you constantly have to keep changing and re-optimizing a model, then it isn't a winning model."

"If you are going to buy a stock at $80 and then five to ten weeks later the stock is at $100, much of [a bad fill] is forgotten. Paying an extra quarter for a stock that is going to run $100-$200 is completely meaningless." — Daniel Zanger

In 1999 the Nasdaq made its largest advance ever. In 2000 it saw its largest yearly loss ever. Neither year is a good representation of what one should expect in the market. Systems that were optimized using 1999 were crushed in 2000. Along the same lines, systems that are optimized in 2000 will likely struggle moving forward as the market recovers. When building a system, one should test over the entire cycle.

Daniel Zanger – June 2000

"If you are going to buy a stock at $80 and then five to ten weeks later the stock is at $100, much of [a bad fill] is forgotten. Paying an extra quarter for a stock that is going to run $100-$200 is completely meaningless."

Not long after our interview, Mr. Zanger was featured in *Fortune* magazine for his remarkable one-year trading return. One of his keys to success is to focus on big moves rather than wasting time worrying about good fills. It takes a lot of saved sixteenths to offset having a stock run away from you because of a limit order. If you want to own a stock, then buy it.

Jay Kaeppel – July 2000

"I just follow the system. I realized a long time ago that I'm a lousy "gut" trader. In the long run this has worked to my benefit. I try to do my best thinking "up front" and build that into a system. Once I develop a system that I have confidence in, then I have no problem just following the signals."

Having confidence in a system is extremely important because all systems go through good and bad periods. How a trader reacts to

Quotes continued on page 8

QUOTES FROM THE OPENING BELL *continued* . . .

the bad periods depends on his confidence level in the system. If he leaves the system and tries another, then there is no confidence. If the system is constantly overridden with emotional decisions, then there is no confidence. Following a trading system without confidence rarely leads to good returns.

Richard Ehlers – September 2000

"The older I get the fewer stocks I can track. So my discipline has gone from holding 10 issues to only six. One problem I have is that it is sometimes difficult to follow all my trading rules."

Holding just a few stocks makes a portfolio more volatile but with so few stocks it is easier to track the stocks and know how they are performing. Most people should follow several types of strategies in their overall portfolios. But you may try holding very concentrated portfolios with each strategy.

David Vomund – August 2000

"Comparing the Nasdaq Composite to the S&P 500 using the RSMD SPX indicator has become an important part of my analysis. First, it serves as a good market timing tool. When the Nasdaq is outperforming, it indicates that traders are willing to take aggressive positions and are seeking maximum profit. Generally, these are bullish time periods. When the S&P 500 takes leadership over the Nasdaq, then it implies people are moving to more conservative stocks and are seeking safety. The market rarely has a strong rally when the RSMD SPX favors the S&P 500."

This use of the RSMD SPX indicator as a market timing tool was one of the most important topics covered in the newsletters last year. Here is how it works:

Chart the Nasdaq Composite (OTC) and click on the weekly RSMD SPX indicator (**Figure 4**). When this indicator increases for two straight weeks, then the Nasdaq is outperforming the S&P 500. When the indicator decreases for two straight weeks, then the S&P 500 is outperforming. You'll find that the overall market environment is much more favorable when this indicator is increasing.

This technique worked beautifully over the last two years. The indicator seems to be gaining accuracy with time because movements in the S&P 500 and in the Nasdaq Composite are becoming more independent. ■

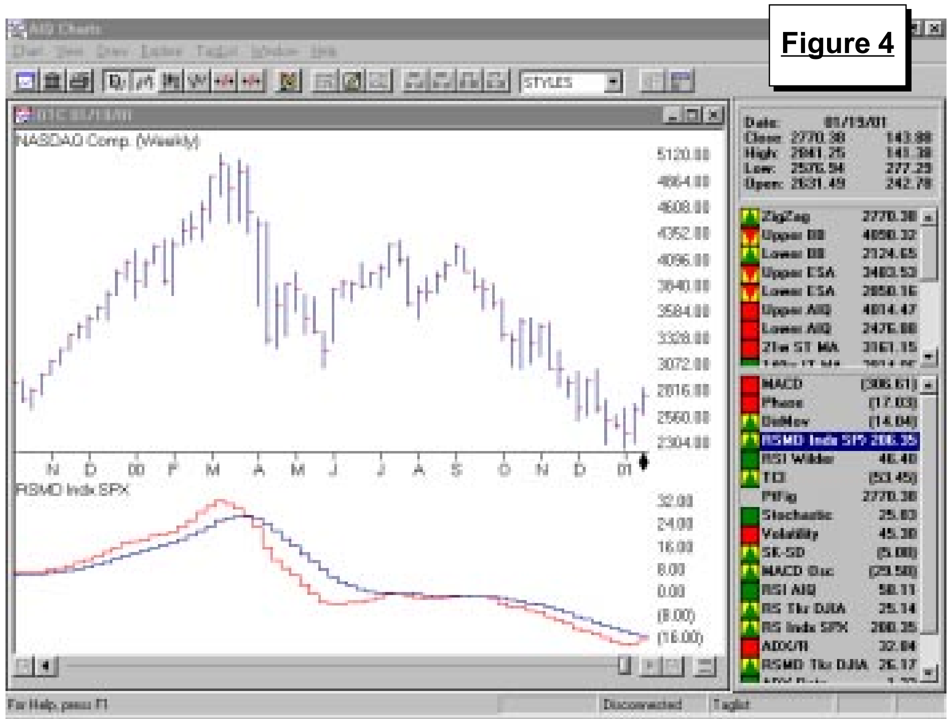


Figure 4

"Comparing the Nasdaq Composite to the S&P 500 using the RSMD SPX indicator has become an important part of my analysis...it serves as a good market timing tool." — David Vomund

Please Note

The information in this newsletter is believed to be reliable but accuracy cannot be guaranteed. Past performance does not guarantee future results.

S&P 500 Changes

No changes this month.

Year-End Index of 2000 Articles

Opening Bell subscribers may obtain a free Index of 2000 Opening Bell articles by calling AIQ at 1-800-332-2999.