

*Feature*

System Testing - Part II  
The short side ..... 4

*Sections*

Market Analysis ..... 1  
Data Maintenance ..... 3  
Market Review ..... 3  
Group of the Month ..... 6  
Tools of the Trade ..... 7

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

**MARKET ANALYSIS**

## DETERMINING MARKET CONDITIONS

By David Vomund

**A**re you bullish or bearish? This is probably the most asked question when investors get together. It is addressed each hour by various investment professionals on CNBC. While the answer is important, investors need to know more about the condition of the market than simply whether it is bullish or bearish. If the market is bullish, what type of stocks will increase the fastest? What type of stock picking strategies will provide the best results? These important questions are answered with the use of AIQ software.

Let's begin with our original question of bullish or bearish. Certainly the last market Expert Rating plays a major factor in answering this question. If the last signal is confirmed, confidence is increased. Many AIQ users turned from bearish to bullish at the end of November. Three months and three hundred Dow points later we are still without another signal. Should we still

be bullish? Determining bullish or bearish is easy when the buy or sell signal is registered, but periods without Expert Ratings become more subjective.

Between signals, it is helpful to look at the percentage of unconfirmed stocks

giving buy and sell signals. This score is found on the top left part of the Market Log labeled US (refer to the *Opening Bell Monthly*, November 1994). The Dow rallied

about 300 points from November to the beginning of March, yet on March 10 a high percentage of stocks were still giving buy signals. In my database, about 80% of the stocks giving unconfirmed signals were on the buy side. It is rare that the market Expert Rating would give a sell signal when such a high percentage of stocks were giving buy signals. On the other hand, when a high percentage of stocks are giving unconfirmed sell signals it is likely that the market advance will



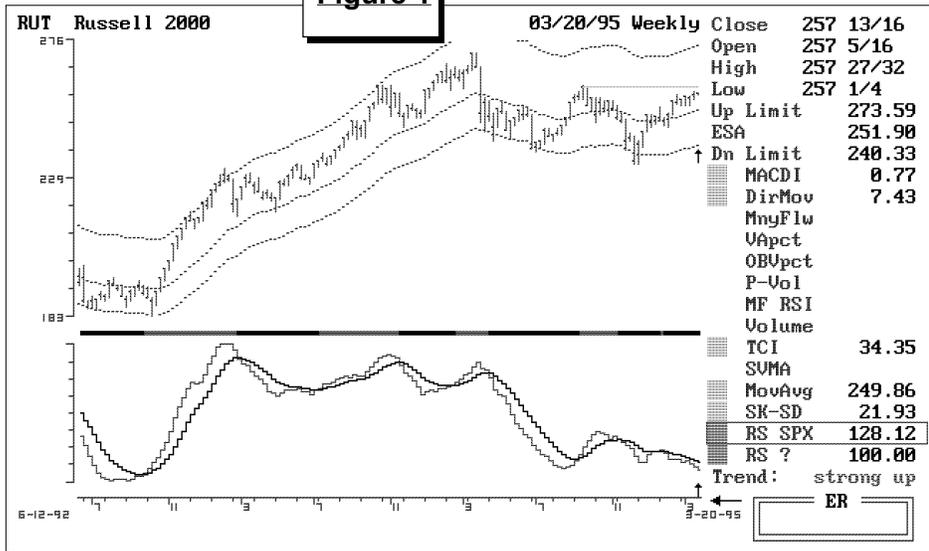
DAVID VOMUND

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*"Determining bullish or bearish is easy when the buy or sell signal is registered, but periods without Expert Ratings become more subjective."*

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**Figure 1**



lose some steam and a market Expert Rating sell signal will soon occur.

The market Expert Rating and the percentage of stocks giving unconfirmed signals is helpful in determining bullishness or bearishness but we would like to know what type of stocks, large or small companies, will move the most. People often think AIQ's market Expert Rating is a buy or sell signal for just the Dow. Not so. The buy and sell signals are for the "market." That means large and small

company stocks alike. During market advances, one type of stock classification will outperform the other but it is rare for large company stocks to have a significant rally while small company stocks fall. The key is to know whether large or small company stocks will outperform. The Relative Strength indicator is a nice tool to help in this regard.

**Figure 1** is a chart of the Russell 2000, which is an index of small company stocks. The displayed indicator is the Relative Strength of the Russell 2000 versus the Standard & Poor's 500 index. During periods when

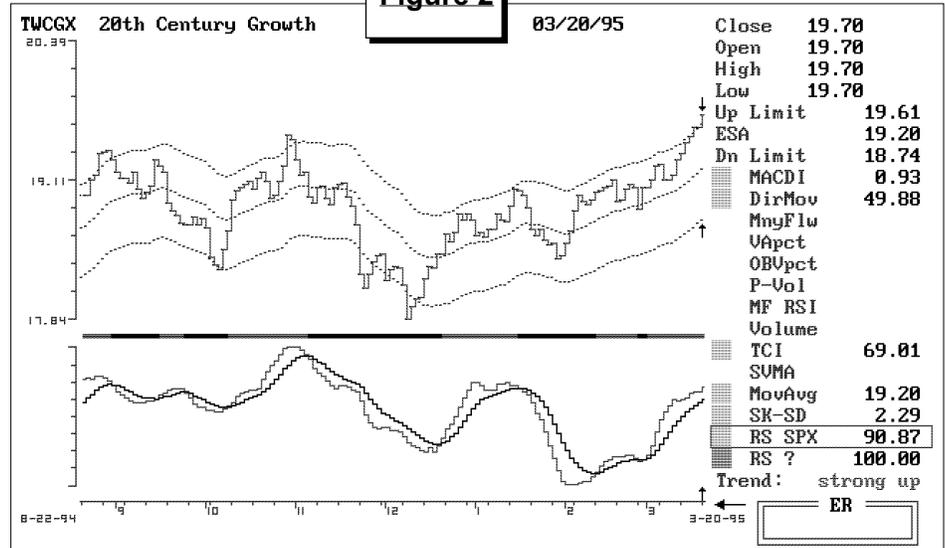
the fast line is rising and is above its signal line, the Russell 2000 index is outperforming the S&P 500 (i.e. small company stocks are outperforming large company stocks). We see that the Relative Strength of the Russell 2000 versus the S&P 500 is currently falling and has been for most of this year. This year's action has been mostly in the large-cap arena.

The Relative Strength graph in **Figure 1** is in the weekly format, which gives a longer term picture and fewer whipsaws. Shorter term traders will want to use the daily chart format.

Our last question in determining market conditions is what style of investing is in favor. We'll classify stock picking strategies into two categories—growth investing and value investing. Growth investors typically buy stocks with strong earnings growth. These stocks are typically in strong uptrends and are closer to their highs than to their lows. Value investors purchase stocks that have been beaten up but still have good fundamentals. In technical terms, this means that value investors usually try to buy stocks that are near their lows and are oversold.

To see which type of strategy is in favor, we once again use the Relative Strength indicator. **Figure 2** is a chart of the Twentieth Century Growth

**Figure 2**



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

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MARKET ANALYSIS *continued* . . .

mutual fund, a fund synonymous with the growth stock investing strategy. The Relative Strength indicator is once again being compared to the S&P 500 index. We see that recently the growth stock investing strategy has been in favor as the Relative Strength line is rising. Determining when growth investing is in favor is new to my trading process. It is likely that there will be refinements to this analysis but it appears to be a good method of determining when a growth model is most appropriate.

Most people are content with knowing if the market is bullish or bearish. We now see that it is important to explore the market conditions in greater detail. In 1994, there were

bullish and bearish time periods but large company stocks were in favor for much of the year. That hasn't changed in 1995, although growth investing has recently become the method of stock selection with the greatest profit potential. This knowledge allows us to tailor our investment approach to fit the conditions of the market. ■

*David Vomund is publisher of two advisories for stock and sector fund investing available by mail or fax. For a free sample of the advisories, phone 702-831-1544.*

## MARKET REVIEW

By David Vomund

The market rally continues as the Dow, S&P 500, NY Composite and NASDAQ Composite all moved to new highs near the end of March. Most of the advance is in large company stocks with the exception of small-cap technology issues. Through March 23, the S&P 500 has gained 8% while the Russell 2000, a fair proxy for the small-stock universe, improved less than 3%. The average domestic stock fund is trailing the S&P 500 by nearly three percentage points.

On Tuesday, March 7, you may or may not have received a sell signal depending on your data vendor. Those who use Dial/Data or Wall Street Journal data received a 94 down rating. Interactive Data and Telescan users saw a 99 down rating.

It is very rare that Interactive Data and Dial/Data users see different signals. Telescan users often get different Expert Ratings since they receive the actual daily high and low prices for the Dow whereas other vendors use the theoretical high and low values (the theoretical high value of the Dow is the value that would be seen if all the Dow 30 stocks reached their daily highs at exactly the same time).

At the time of the March 7 signal, about 80% of the stocks giving confirmed and unconfirmed signals were on the buy side, which is a very bullish reading.

Since Telescan users receive different Expert Ratings than most AIQ users, people often wonder if they are valid. The answer is yes, they are valid. Just look at 1994's results for proof of that! Over time, the effectiveness of market timing signals using Telescan versus other data vendors is about equal. ■

## STOCK DATA MAINTENANCE

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

Stock	Ticker	Split/Div.	Date
Netmanage Inc.	NETM	2:1	04/04/95
JLG Industries	JLGI	2:1	04/04/95
Esmor Correctional	ESMR	5:4	04/05/95
Hewlett Packard	HWP	2:1	04/14/95
Thermo Elect.	TMO	3:2	04/17/95
Tootsie Roll	TR	3%	04/24/95
Tennant Co	TANT	2:1	04/27/95

**Trading Suspended:**

Caesars World (CAW)  
 American Medical Holdings (AMI)  
 SCIMED Life Systems (SMLS)  
 Lockheed Corp (LK)  
 Martin Marietta Corp (ML)

**Name/Ticker Symbol Changes:**

Sonoco Products (SONO) to Sonoco Products (SON)  
 Saatchi & Saatchi (SAA) to Cordiant PLC (CDA)

## SYSTEM TESTING – PART II

Last month, we discussed how important it is to have confidence in the AIQ software - confidence that we need for our overall trading process. To help you build this confidence, we introduced a test of the system's effectiveness that used a 100% mechanical process for stock selection. The results were impressive. This month, we will expand on this study by including results from a similar analysis on the short side.

For our mechanical test, we studied the last three calendar years using a database of the 500 stocks that currently make up the S&P 500 index.

When an Expert Rating buy/sell signal of 95 or greater was registered for the overall market (confirmation was ignored) we ran the Weighted Action List report. Positions were taken in the top five stocks with buy/sell signals of 95 or greater and with a price of at least \$10. These stocks were held until the first market sell/buy signal at which time all positions were liquidated.

**Table 1** and **Table 2** show the results of each trade block for long and short positions -- Table 1 for the long side and Table 2 for the short side. The first two columns list the dates of the Expert Rating buy and sell signals. The

third column lists the percent change in the S&P 500 index for each time period. To make this figure directly comparable to the results of the top Weighted Action List stocks, we are using the opening price for the S&P 500 the day after each Expert Rating signal (this was not the case in last month's study).

The fourth column lists the average percent change of the top five buy and sell rated stocks on AIQ's Weighted Action List. We are again using the opening prices the day after the market timing buy/sell signals in our calculation. Finally, the last column lists the stocks that were held for each time period.

We see that the average holding period for the long positions is 37 calendar days while the average holding period for the short positions is

**Table 1**

### AIQ Performance Study 1992 through 1994 Long Side

Buy Signal Date	Sell Signal Date	S&P 500 % Change	Stocks % Change	Stock Holdings (Ticker Symbols)
12/31/91	02/24/92	-1.16	6.13	SHN, PRD, NT, SVU, VO
04/10/92	05/15/92	1.44	-1.70	NEC, BKB, KBH, OCF, ONE
05/29/92	06/05/92	-0.45	0.35	PBY, GD, VAT, DNF, CEN
06/22/92	07/20/92	2.57	4.74	MER, WHR, DJ, CMCSK, MD
07/27/92	08/06/92	2.20	5.09	BDK, KBH, VAT, DD, ROAD
08/14/92	09/08/92	-1.30	-1.36	MEL, IAD, PH, USBC, ROAD
09/10/92	09/22/92	-0.67	1.02	NSM, MEL, FLT, OM, I
09/28/92	12/14/92	3.89	8.86	ENE, STI, IAD, TA, ONE
12/18/92	01/07/93	-2.39	0.96	SFA, TA, U, MDR, JCP
01/12/93	02/16/93	0.67	3.86	CEN, I, MER, CL, PNC
07/06/93	10/22/93	4.95	12.38	PET, CMCSK, CHA, NSI, GAS
12/17/93	02/04/94	0.74	8.09	AMD, UIS, FG, NSM, TWX
02/28/94	03/24/94	-0.61	5.8	SFA, TEK, CMZ, AHM, MII
03/28/94	06/20/94	-0.99	2.45	ML, ASN, KRB, NSC, PEL
06/27/94	08/05/94	2.17	9.06	MU, TCOMA, TWX, CBS, PH
08/23/94	09/19/94	1.36	14.78	HM, PDG, FRM, MIL, CNF
09/26/94	09/29/94	0.31	0.59	TDM, KR, MD, BDK, MAR
10/10/94	10/20/94	1.67	4.03	MYG, SFA, AL, MD, CSC
11/07/94	12/30/94	-0.82	-2.63	CCB, BYM, DGN, GWF, KBH
	Average=	0.72	4.34	

Average holding period=37 days  
Average outperformance per period=3.63%

STOCK ANALYSIS *continued* . . .

22 days. The average percentage change in the S&P 500 for all buy signals is .72%. For sell signals, the S&P 500 fell on average 0.19%.

In comparison, purchasing the top five stocks on the Weighted Action List returned an average for all trades of 4.34% for the 37 day time period. Shorting the top five stocks during the bearish time periods returned a per trade average of 1.04% for each 22 day time period. These returns ignore commissions and slippage.

To measure the effectiveness of the individual stock Expert Ratings, we need to compare how the five stock holdings performed relative to the S&P 500 index. We see that, on the long side, the stock holdings outperformed the S&P 500 by an average of 3.63% (4.34% vs. 0.72%) for the bullish time

periods. The short positions outperformed the S&P 500 by an average of 0.85% (1.04% vs. 0.19%).

As explained last month, the current knowledge base for StockExpert and TradingExpert was released before the start of the time period for this test. Obviously, system backfitting could not have impacted results.

The time period under study was an unusually slow one for the market. The degree of outperformance using AIQ's Expert Ratings becomes even more significant considering the S&P 500 (excluding dividends) rose only a little over 10% during this three year time period. In the same period, a purely mechanical process combining AIQ market timing with AIQ stock timing would have returned over 80%

before commissions but without compounding (i.e., investments are not increased as portfolio increases in value).

It's also impressive to know that the system outperformed on both the long and short side. However, performance results were best on the long side as the average stock rose 4.34% in only a 37 day time period.

Our confidence in AIQ's ability to call market and stock movements is reinforced. ■ D.V.

**CORRECTION:**

In the March, 1995 issue, Table 1 incorrectly listed the percent change for the S&P 500 between 01/12/93 and 02/16/93. The correct figure is 0.67%.

**Table 2**

### AIQ Performance Study 1992 through 1994 Short Side

Sell Signal Date	Buy Signal Date	S&P 500 % Change	Stocks % Change	Stock Holdings (Ticker Symbols)
02/24/92	04/10/92	-1.94	-9.90	NSM, PDG, ROK, MCIC, U
05/15/92	05/29/92	1.27	2.14	GWF, ORX, I, TWX, CMCSK
06/05/92	06/22/92	-2.44	-1.57	ORX, PRD, FFB, MCD, LLX
07/20/92	07/27/92	-0.53	-1.21	BKB, JH, AXP, TWX, GWF
08/06/92	08/14/92	-0.17	-3.20	CYM, SB, GWF, HP, UK
09/08/92	09/10/92	1.33	1.46	PRD, ROK, TX, LLX, TKR
09/22/92	09/28/92	-0.13	-1.49	CPQ, ORX, AXP, ROK, AA
12/14/92	12/18/92	1.95	3.36	DGN, SNC, FLT, CPQ, CNF
01/07/93	01/12/93	0.07	0.64	DIGI, HP, AXP, UCL, MCIC
02/16/93	07/06/93	1.72	4.77	N, ITT, LLX, TA, CI
10/22/93	12/17/93	0.67	-4.97	DGN, E, SLB, FWC, APD
02/04/94	02/28/94	-0.56	-3.02	JR, INGR, N, RLM, TEK
03/24/94	03/28/94	-0.93	-2.71	TDM, AZA, NSM, AMD, NBD
06/20/94	06/27/94	-1.78	-2.94	TDM, AZA, BDK, SFA, OXY
08/05/94	08/23/94	1.63	-0.09	PZS, GWF, FBO, NBD, OG
09/19/94	09/26/94	-2.13	0.80	BHI, K, HNZ, WTHG, BA
09/29/94	10/10/94	-0.70	-1.05	STO, BMET, LLY, MRO, PZS
10/20/94	11/07/94	-0.77	0.32	BHI, NOC, LLX, DGN, HOU
	Average=	-0.19	-1.04	

Average holding period=22 days

Average outperformance per period=0.85%

GROUP OF THE MONTH

# GROUP 3674A SEMICONDUCTORS & RELATED

By David Vomund

One of the strongest groups this year is Semiconductors. We featured this group back in 1993, but the components have changed so it's time for an update. The AIQ Pyramid industry group structure contains groups whose stocks are highly correlated to their industry group indexes. We began with the Dow Jones Semiconductors & Related group and used AIQ's MatchMaker to test the correlations of the stocks within the industry group, keeping those stocks that are highly correlated to the industry group index. When all the stocks within the group show a high correlation to the group index, the index then becomes a better representation of the activity of the underlying issues.

AIQ's MatchMaker also found stocks that were highly correlated to the index but that were not a part of the Dow Jones industry group structure. As a result, Texas Instruments and Micron Technology were added to the Semiconductor group. The final group has eight stocks, all with coefficient readings greater than 500 (1000 is

perfect correlation).

**Table 3** lists the stocks in the group along with each stock's coefficient reading.

In the Group of the Month article in September 1994, we discussed how to use the Group/Sector report to find groups that are in or are near a bottoming phase. This time, we'll gear our analysis to people who like to buy into

strength, hoping to ride the stock higher. For the trend follower, buying at or near the low is not important. This person will make heavy use of AIQ's weekly charting capabilities, searching for groups that are in nice uptrends but are not overextended.

People who like to buy into strength were tipped off to the attractive Semiconductor group by two methods---chart analysis and use of the Daily Group Report.

One can use AIQ's Explore feature to quickly examine the chart patterns on sectors and industry groups. The method we prefer, however, is to use the Daily Group Report and then simply examine those groups that are near the top of the report. This saves time because the groups near the bottom of the report can be ignored.

**Figure 3** shows the Daily Group Report for February 14. A person interested in buying into a trend will start at the top of the report and look for attractive situations. Most of the chart analysis is done on the weekly

Table 3

**Group 3674A**  
AIQ MatchMaker Weekly Analysis  
03/17/94 - 03/17/95

Coef	Tic.	Stock
852	TXN	Texas Instruments
823	MU	Micron Technology
811	AMAT	Applied Materials
703	NSM	National Semiconductor
672	INTC	Intel Corp.
634	AMD	Advanced Micro Devices
511	MOT	Motorola
508	ADI	Analog Devices

Figure 3

AIQ TradingExpert														
Daily Group Analysis Report for 02/14/95														
Symbol	T	Name	ER	GE	90	Score	91+	9-	Delta	33+	66-	Ave Delta		
			10 Days since Expert Rating							22+	9-			
			TS	DTS	num	er	up%	dn%	mdo	dmi	mfo			
7000A	G	Lodging	100	3	3	59	11	33	66	100	66	66		
5092A	G	Recreation, Toys	100	0	2	59	11	50	50	100	100	100		
3221A	G	Containers & Packaging	100	0	2	59	11	100	0	100	50	100		
3674A	G	Semiconductor & Related	100	0	8	59	11	37	62	100	75	50		
4511A	G	Airlines	100	3	4	59	11	25	25	100	75	50		
7810A	G	Recreation, Entertainment	100	0	2	59	11	0	50	0	0	100		
3711A	G	Automobile, Manufacturing	99	33	3	77	4	66	0	100	100	100		
8050A	G	Medical & Biotechnology	99	(1)	4	7	67	25	75	25	0	100		
3630A	G	Home Furnishings & Appliance	99	(1)	3	59	11	0	66	0	33	66		
2710A	G	Media, Publishing	99	0	5	59	11	60	20	80	80	40		
4830A	G	Media-Broadcasting	99	(1)	4	59	11	0	100	75	75	25		
6021A	G	Banks, Money Center	99	0	6	59	11	16	16	0	16	16		
3571A	G	Computers & Information	99	20	6	76	5	50	0	83	100	66		
2600A	G	Paper & Forest Products	99	10	11	87	4	18	18	81	72	54		
2844A	G	Cosmetics & Personal Care	99	0	2	7	67	0	100	0	50	50		
7399A	G	Industrial & Commercial Sus	98	1	4	50	21	25	25	50	50	75		
3721A	G	Aerospace & Defense	98	0	4	59	11	25	50	25	25	75		

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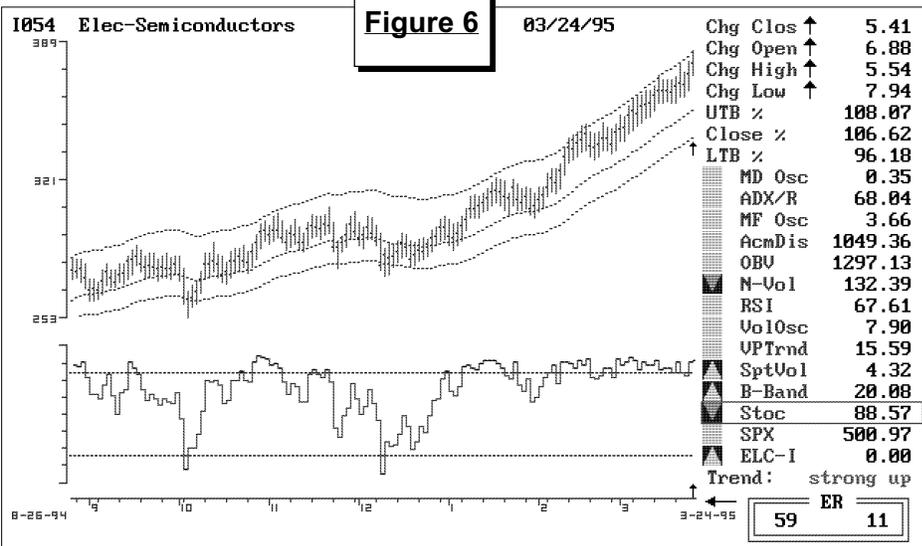
Group of the Month continued on page 7

## TOOLS OF THE TRADE

## MULTIPLE INDICATOR ANALYSIS

In the Tools of the Trade section of this newsletter, we pick an indicator and give insights as to its interpretation. We often discuss the type of market environment, trending or non-trending, under which the indicator works best. While our focus each month is primarily on one indicator, several indicators should be used to increase the reliability of each indicator's buy and sell signals.

Before we discuss multiple indicator analysis, let's briefly review one of the indicators we will focus on—the stochastic. Overbought/oversold indicators, such as the stochastic and RSI, work best in non-trending market environments. They can also be used in trending markets but are only reliable when the signal is in the



direction of the trend. To clarify this, let's look at **Figure 6**, which is a chart of the Electronic-Semiconductors industry

group from a 1700 stock database. This group staged a nice advance even

*Tools of the Trade continued on page 8*

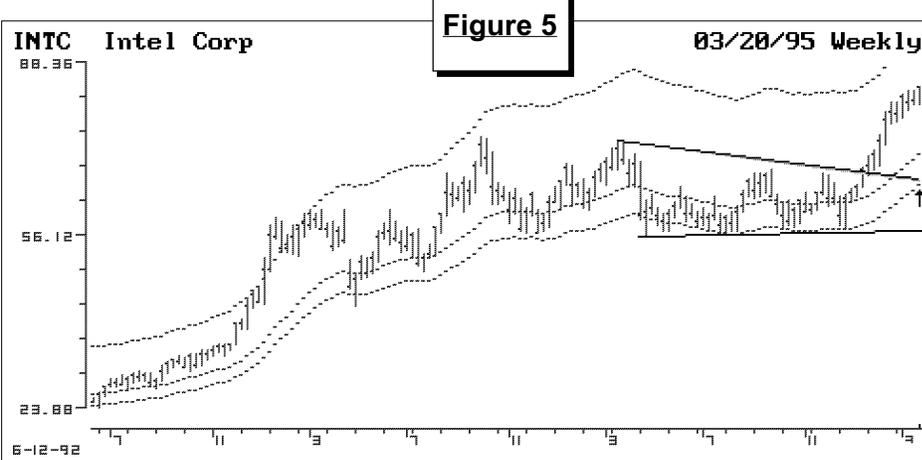
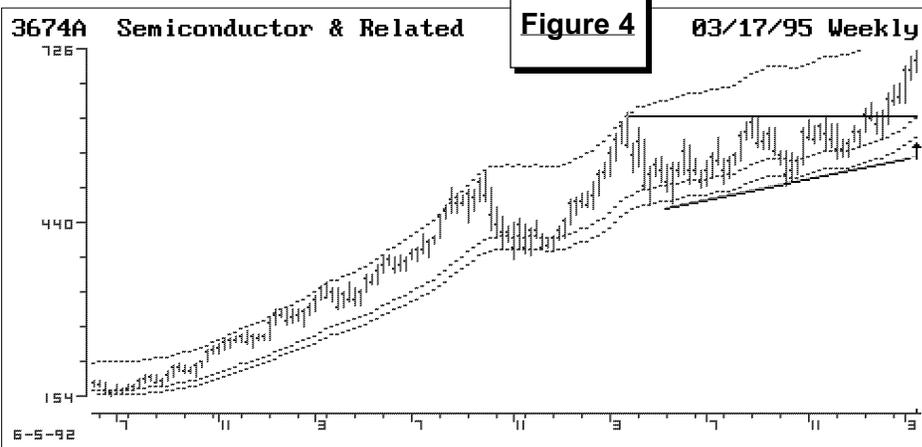
charts, which give a clearer picture of the overall trend. Out of all the groups, the Semiconductor group was fourth from the top.

Examining the weekly chart of the Semiconductor group (**Figure 4**), we can see why it was the most attractive. The Semiconductors & Related group had just broken above a right triangle formation (this formation was described in the December 1994 *Opening Bell*). The group was in a nice uptrend and had just broken resistance.

At that time, one could have used the dart throwing method of picking Semiconductor stocks and have done well. The stock that we found the most attractive was Intel Corp (INTC).

**Figure 5** shows that Intel also has an attractive weekly chart pattern, in that it had just broken above its resistance trendline.

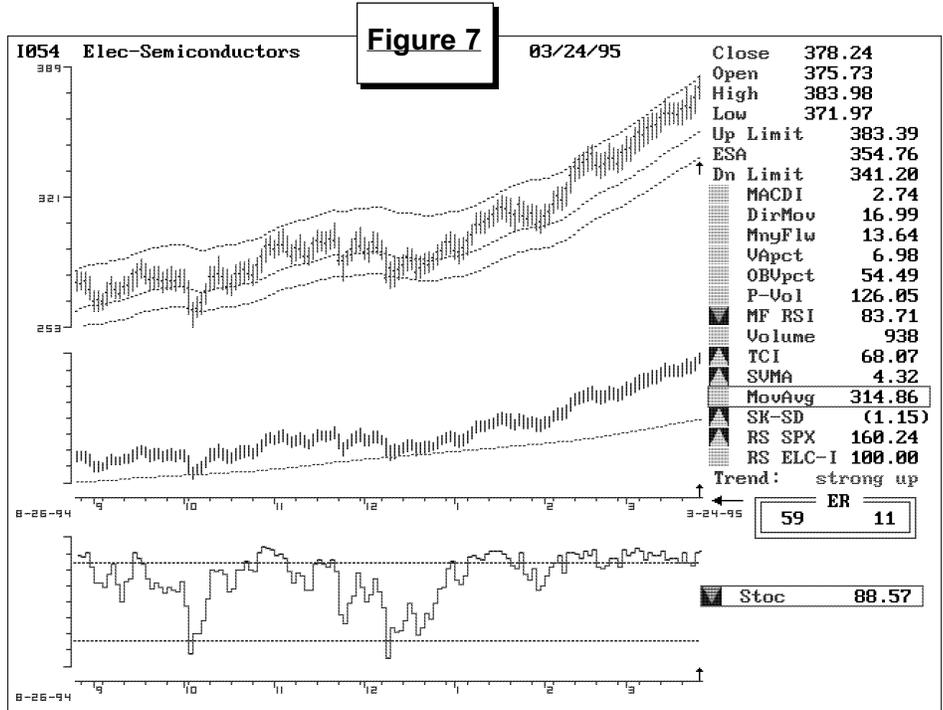
For the person interested in buying high and selling higher, a combination of the Group Analysis Report and the weekly chart readings make for a quick and easy method of stock selection. ■



when the stochastic was in overbought territory (above top horizontal line) and registering sell signals. A strong trending security will almost always show bad stochastic signals against the trend. However, signals in the direction of the trend, although rare, are usually very good. Examples are the two buy signals in October and December, which were well timed.

By introducing another indicator in our analysis, we can eliminate several of the bad stochastic signals and thereby improve the accuracy of the indicator. We'll first introduce the moving average indicator as a means of determining the overall trend of the security. Using a 100-day moving average, any security above the moving average is in an uptrend. The opposite is true for a downtrend. Since signals in the direction of the overall trend are more reliable than signals against the trend, a rule can be formed where stochastic buy signals are only valid if the security is above its 100-day moving average. The opposite is true on the sell side.

In **Figure 7**, we see that the semiconductor group was just above its 100-day moving average on a closing basis when the stochastic registered its two buy signals. All stochastic sell signals



are ignored since the security was above its moving average.

Let's introduce trading bands into the same analysis. **Figure 8** is a chart of Walgreen Company (WAG). AIQ's trading bands are designed to incorporate most of the price activity of the charted security. A volatile stock will have wide trading bands while a steady stock will have narrow bands.

WAG's lower band is near the 21-day moving average since there is very little downside volatility. The lower trading band often acts as support for the stock while the upper band acts as resistance. Since our stochastic and moving average rule allows us to enter a security near its short term low point, confidence is higher if the stock is on or just below the lower trading band.

In **Figure 8**, stochastic buy signals were registered in October, December and March. With our rule, the October signal is not valid since the stock was below its 100-day moving average. All sell signals after October are not counted since they are against the overall trend of the stock.

With this type of analysis, we see that the number of signals from the indicators is reduced but the accuracy of each signal is increased. We encourage you to experiment with this multiple indicator rule and develop rules of your own that work for the types of stocks that are of interest to you. You will find that this type of analysis increases the reliability of the indicators, especially when used in conjunction with Expert Ratings. ■

