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Feature

Sections

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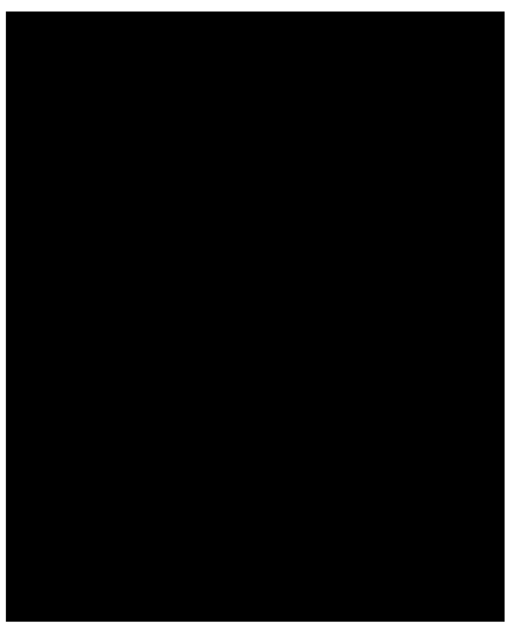
INTERVIEW

TECHNICAL INSIGHTS FROM ANALYST JOHN MURPHY

By David Vomund

John Murphy (CMT) was the technical analyst for CNBC-TV for seven years and has been applying technical analysis for three decades. He has authored three best-selling books including "Technical Analysis of the Futures Markets" and "Intermarket Technical Analysis." His third book, "The Visual Investor," applies technical work to market sectors and mutual funds. In 1996, Mr. Murphy founded MURPHYMORRIS Inc., along with software developer Greg Morris, to produce interactive educational products and online analysis for investors.



John Murphy, CMT

DV: *When and why did you start practicing technical analysis?*

JM: I began this work in the late 1960s simply because I wanted to work on Wall Street. After interviewing for various jobs, I was offered an interim position to do charts and was told that once I learned how to do charts then I could move on to fundamental analysis. I became intrigued with charting, took a couple of courses on technical analysis, and read many books. Three years later, we entered a nasty bear market and I switched jobs and began working with commodities instead of stocks. I continued working with commodities for about ten years. Now I'm once again working more with stocks than with commodities.

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INTERVIEW *continued . . .*

DV: *It sounds like you never made it to that fundamental position.*

JM: They told me it would take about six months to master the charts and now, 30 years later, I still haven't mastered them. I must be a slow learner!

DV: *In 30 years, I'm sure you have seen a lot of changes in technical analysis. What are the most significant changes that have taken place?*

JM: The real change has occurred in the market rather than in the analysis. There was a time when the stock market was totally insulated from commodities and bonds. These areas were very much segregated. Now there are futures contracts on bonds and stock indexes and there are options on sectors. Everything is so interrelated now.

It is now common to read a stock market news page that refers to the activity in the bonds, oil, gold, or the dollar. The markets are very interrelated today and it has affected technical analysis in that intermarket work has become more important.

DV: *The use of computers in technical analysis has obviously helped the analysis. Do you think that technical analysis programs that do automated charting, technical screenings, and backtesting have hurt the analysis in any way?*

JM: I believe that all that has happened in the computer area is very good. As you pointed out, the ability to manipulate data and perform in-depth tests quickly is a tremendous benefit. Maybe the only thing that I see in my contact with professional traders is that there is a tendency to try to become too sophisticated. They look at too many indicators, optimize them, smooth them two and three times, and then try to squeeze another piece of wisdom out of them. They can talk to you about the most sophisticated triple exponential smoothing but if you talk to them about a simple support level or a trendline, they don't know how to find it on the chart. They are missing the obvious.

"People learn the indicators and then take them too literally. You have to learn how to put it all together. Before looking at individual indicators, people need to understand the trend of the market and whether it is time to buy or sell."

DV: *Are you in favor of a mechanical "black box" trading approach or do you believe that human judgment should be a factor?*

JM: I'm an analyst so I would personally be uncomfortable with relying exclusively on a black box approach. There is a lot of value in system trading, however. In the past, I managed money in the futures area and relied on various systems that I found very useful. So I do like having a good system but I am uncomfortable with a system if I don't know what is in it. There is a lot of value in a system approach but there is a role for incorporating human judgment.

DV: *You have been a real ambassador for technical analysis. When you talk to people that are new to this type of analysis, do you see any common mistakes that they make?*

JM: We have a web site where I answer a lot of questions from people. Just yesterday someone said that he shorted a stock because its daily stochastic had given a sell signal. It turns out the stock was in an uptrend and you shouldn't short into an uptrend. People learn the indicators and then take them too literally. You have to learn how to put it all together. Before looking at individual indicators, people need to understand the trend of the market and whether it is time to buy or sell. There is a tendency to rely too literally on the indictors while ignoring the bigger picture.

DV: *Do non-technical factors such as instability in Asia or a bad earnings report play into your analysis?*

JM: You have to be aware of earnings because they can devastate a stock but they are not part of my analysis. What happens in Asia does affect my work because it is part of the intermarket approach that I follow. What happens in Asia impacts the U.S. We saw that late last year, when their crises led to our correction. More recently, when events in Asia stabilized, our market rallied. The intermarket work is very important. I follow the bond market because it says a lot about interest rates, and I follow the commodity market because it says a lot about inflation.

DV: *As someone who stands in front of the TV cameras, in what ways do you believe these financial channels help traders and in what ways do they hurt traders?*

JM: It is important to understand that TV networks are in the business for ratings. That is their concern so there is a strong tendency to over-dramatize everything that happens in every single day. Things

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INTERVIEW *continued . . .*

get blown out of proportion and most investors are better off ignoring this sort of coverage. On days when the market is up, they talk to the people who are very bullish. On down days, they bring in those that are very bearish. It is always after the fact.

This is one of the reasons that I decided to leave CNBC—I became concerned that there was too much emphasis on hype and not enough substance. I wasn't comfortable with my job because you can't analyze markets in sound bites. People are better off ignoring the day-to-day noise in the market.

DV: *Let's talk about your trading style. For your equity holdings, are you a short-term trader or are your holdings more for intermediate term moves?*

JM: Intermediate term work dominates my analysis. Our web site is geared to the average investor rather than the professional trader. The focus is on the next three to six months.

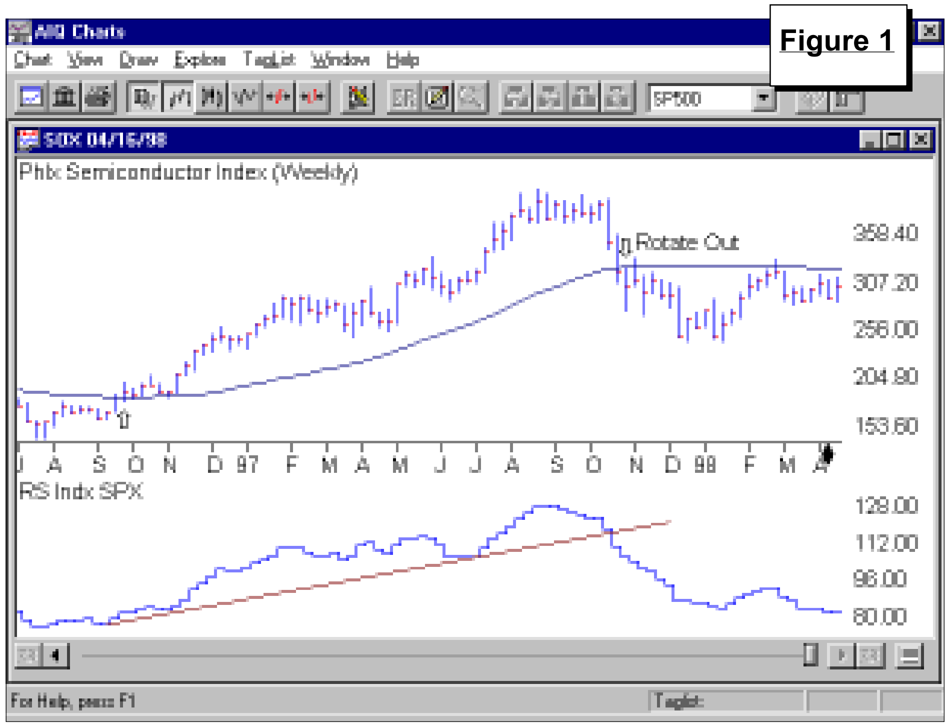
DV: *Do you typically buy into strength or weakness?*

JM: A little of both. I'll do a lot of anticipating, looking for support levels for possible entry. Breakouts are important as well, however. I'll act on good solid breakouts.

DV: *How important is overall market timing in your stock selection process?*

JM: It is not very important. Most of my work is done on market sectors. There is an enormous amount that goes on beneath the surface. On any given day, certain sectors of the market will be up sharply and other sectors will be down sharply, sometimes for the same reason. Transportation stocks can be up and the oil stocks down because they are both impacted by the price of oil. After spotting the best sectors, then I'll examine the stocks within those sectors. For example, I believe the price of oil is bottoming so we've been looking closely at oil stocks. The sector

Figure 1



analysis is more important than general market timing.

DV: *Which industry group structure do you use?*

JM: Several are used. I'll look at the *Investor's Business Daily* groups but most of my work is on the Standard & Poor's groups. There must be about 30 or 40 index options that are being traded now and can be called right up on the screen. The industry group structure is not as important as simply finding where the strength is.

Relative strength is important. We look for groups that have been out of favor and are just beginning to turn up. In a strong uptrending market, most groups will move higher as well. By doing some simple charting you can see which groups are outperforming the market and which groups are underperforming the market.

DV: *In your book "The Visual Investor" you give an easy to understand visual approach to analyzing securities. In "Technical Analysis of the Futures Market" you cover more complex technical subjects such as indicator readings and cycle analysis. In your final analysis, is the visual aspect more or less important than the more complicated analysis?*

JM: Those books are geared for two different audiences. "Technical Analysis of the Futures Market" provides a thorough look at the whole field of technical analysis and is geared more to the professional.

The "Visual Investor" was written for the average investor or the CNBC audience and shows some simple techniques like relative strength analysis. Even though the techniques are simple, they work very well. Most people don't need to know Elliot Wave Analysis or Gann Analysis to be successful. For one thing, they haven't worked very well during this bull market. At some point, these more esoteric approaches will come back in favor and maybe things will get back to normal but I typically tell people to keep it simple. Identify the trend and go with it.

DV: *What are your favorite indicators and what do you look for in these indicators?*

JM: A lot of my work is basic

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INTERVIEW *continued . . .*

chart analysis including pattern recognition and trendline analysis. Then I'll look at the indicators. Moving averages are very helpful, especially when they are combined with a relative strength indicator.

As an example, a weekly chart of the Semiconductor Index (SOX) moved above its 40-week moving average in late 1996 and stayed in an uptrend until October 1997, when it fell below its moving average (**Figure 1**). When the SOX was above its moving average, it staged an impressive rally but we didn't know if it was actually beating the market until we examined its relative strength indicator. When the SOX was rallying and above its moving average its relative strength indicator was rising as well, implying that the SOX was outperforming the S&P 500. In October 1997, the SOX fell below its moving average at the same time that its relative strength indicator broke down, giving a clear signal to rotate out of this group.

The stochastic indicator and the RSI are also good indicators, although they work best when used together. The best signals occur when the RSI and stochastic are overbought or oversold at the same time. A good example is seen in the Oil Index (XOI). In early January, both the 14-day stochastic and the 14-day RSI moved out of oversold territory. The XOI proceeded to rally until late March when both indicators moved to overbought territory (**Figure 2**).

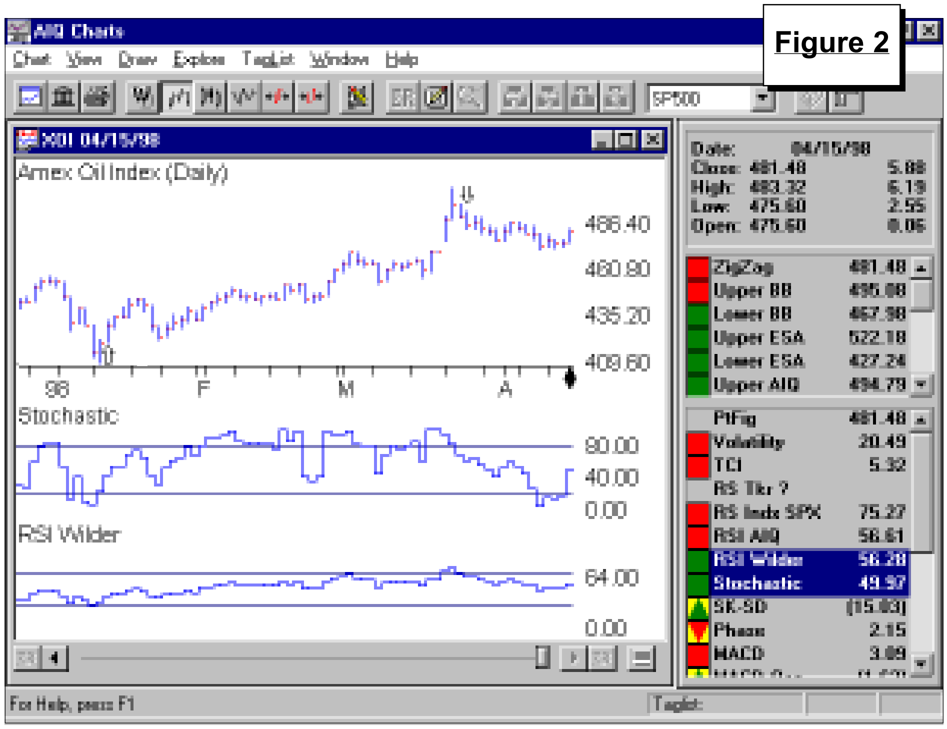


Figure 2

DV: *Can you give some stock examples and tell us why they were attractive?*

JM: The analysis on groups is really the same for stocks, so I'll give examples using other indicators that I like. One such indicator is the average directional movement line (ADX), which helps to determine whether the security is in a trend or not.

An example of how the ADX is applied to other analysis is seen in Dupont (DD). (Note: The ADX line is the fast line in AIQ's ADX/R indicator.) DD made a low in October and then retested its low again in January (**Figure 3**). A horizontal trendline was drawn from the January high price. This trendline was broken in mid-March. At the same time of the breakout, the Relative Strength indicator broke above its seven month downtrend. DD was beginning to outperform the market. The ADX indicator was also moving higher, implying that a new trend was in place.

The Moving Average Convergence Divergence indicator (MACD) and On Balance Volume (OBV) are

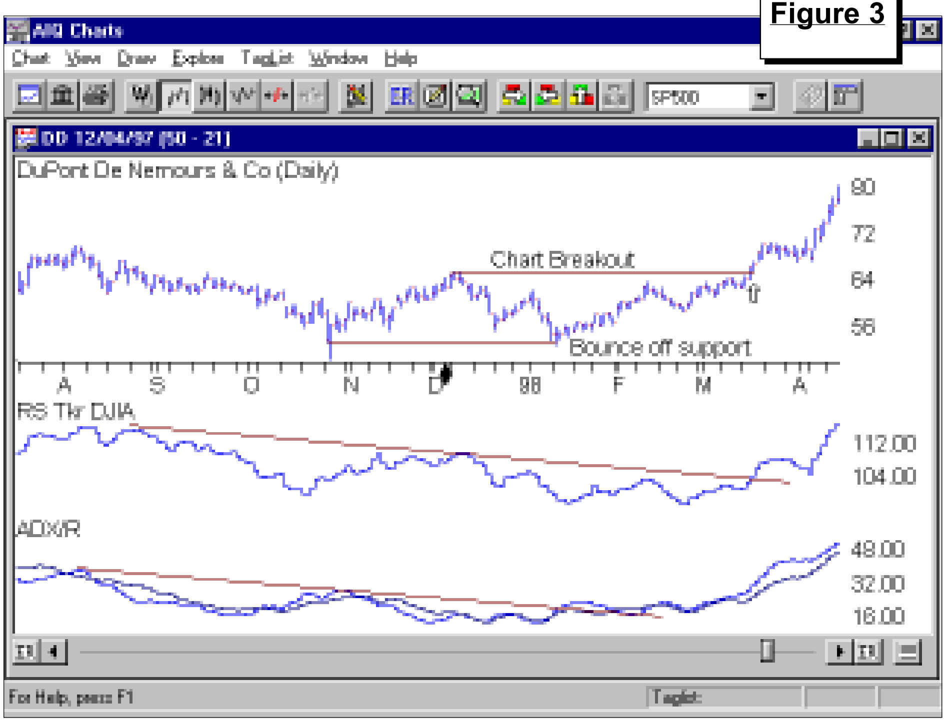


Figure 3

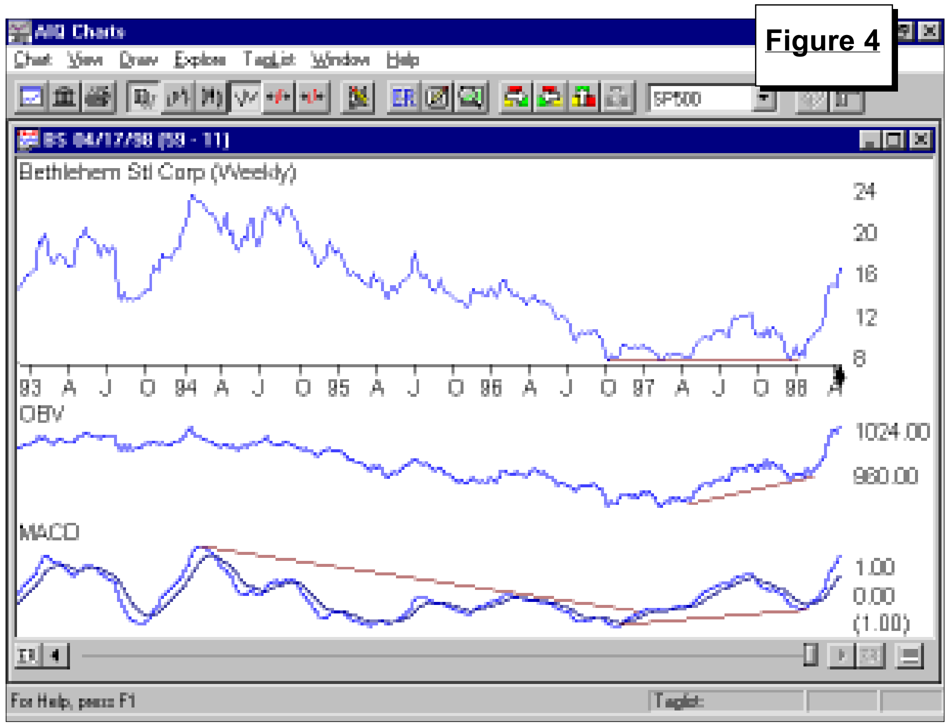
INTERVIEW *continued . . .*

also very useful. OBV is one of the simpler volume indicators but it is very useful in tracking the flow of volume. In **Figure 4** we see a multi-year chart of Bethlehem Steel (BS) using weekly data. There is a very strong support level just below $8 which was tested on three occasions (10/96, 2/97, and 12/97). At the same time that BS fell right to its support level in late 1997, both its OBV and MACD indicators were well off their lows. These positive divergences signaled the ensuing rally.

DV: *Thank you for the interview and for sharing your analysis with us.*■

John Murphy's web site is www.murphymorris.com. His books, an educational multimedia CD-ROM, or his market commentary can be found at that site.

Figure 4



STOCK DATA MAINTENANCE

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

Stock	Ticker	Split/Div.	Approx. Date
Silicon Valley Bancshare	SIVB	2:1	05/04/98
Family Golf Centers	FGCI	3:2	05/05/98
Gencor Inds.	GX	2:1	05/05/98
Andover Bancorp.	ANDB	5:4	05/05/98
CommNet Cellular	CELS	5:1	05/08/98
Ruby Tuesday	RI	2:1	05/11/98
Total Systems Svs.	TSS	3:2	05/11/98
K-Tel Int'l	KTEL	2:1	05/11/98
Warren Bancorp	WRNB	2:1	05/13/98
Werner Enterprise	WERN	5:4	05/14/98
General Cable	GCN	3:2	05/15/98
ASV Inc.	ASVI	3:2	05/15/98
Cincinn. Financial	CINF	3:1	05/18/98
Williams Sonoma	WSGC	2:1	05/18/98
BancorpSouth Inc.	BXS	2:1	05/18/98
Stanley Furniture	STLY	2:1	05/18/98
BMC Software	BMCS	2:1	05/18/98
Valley Nat'l Bancorp	VLY	5:4	05/19/98

Stock	Ticker	Split/Div.	Approx. Date
Veritas Software	VRTS	3:2	05/21/98
Charter One Financial	COFI	2:1	05/21/98
Doral Financial	DORL	2:1	05/21/98
Wyant Corp	WYNT	4:3	05/22/98
Shorewood Packaging	SHOR	3:2	05/22/98
Sylvan Learning Ctrs	SLVN	3:2	05/25/98
FNB Corp	FBAN	5%	05/25/98
Paychex Inc.	PAYX	3:2	05/25/98
Universal Foods	UFC	2:1	05/25/98
Consolidated Papers	CDP	2:1	05/25/98
Vitesse Semiconductor	VTSS	2:1	05/26/98
Fulton Financial	FULT	5:4	05/28/98
Mueller Industries	MLI	2:1	05/28/98
Abbott Labs	ABT	2:1	06/01/98
Danaher Corp	DHR	2:1	06/01/98
Fiserv Inc.	FISV	3:2	06/01/98
Wicor Inc.	WIC	2:1	06/01/98

Name/Ticker Changes:
Bankers Trust New York Corp. (BT) to Bankers Trust Corp. (BT)
Beckman Instruments Inc. (BEC) to Beckman Coulter (BEC)

Trading Suspended:
ACC Corp (ACCC), Arbor Drugs (ARBR), Bally's Grand Inc. (BGLV), Grist Mill Co. (GRST), Marvel Entertainment Group (MRV), Wheelabrator Technologies Inc. (WTI)

ADVANCED OEX ANALYSIS - 2

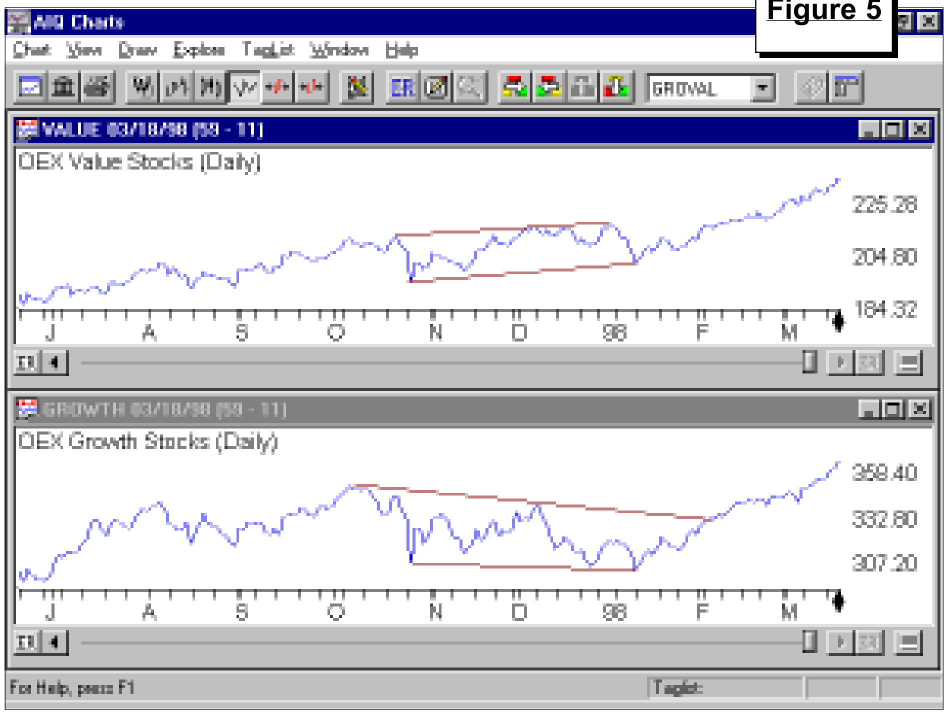
Analyzing Growth and Value Industry Groups Based on the OEX

By David Vomund

In last month's article, we created a market of OEX stocks in order to time the OEX index. We then created a growth group and a value group based on OEX stocks to help us determine whether Wall Street is in an aggressive mode (growth stocks outperforming) or a defensive mode (value stocks outperforming). This month, we will analyze our newly created growth and value industry groups.

The two industry groups appear in **Figure 5**. We can see that the two group indexes tend to move together but there are times when one index clearly performs better than the other. Specifically, in the correction in the fourth quarter last year, value stocks were the better performers. Looking at the trendlines drawn on our growth and value groups in Figure 5, we see that the value stocks did correct in October but recovered and were at a new high in early December. During the market's fourth quarter weakness, our value group made a pattern of higher lows and higher highs (upward sloping trendlines).

Figure 5

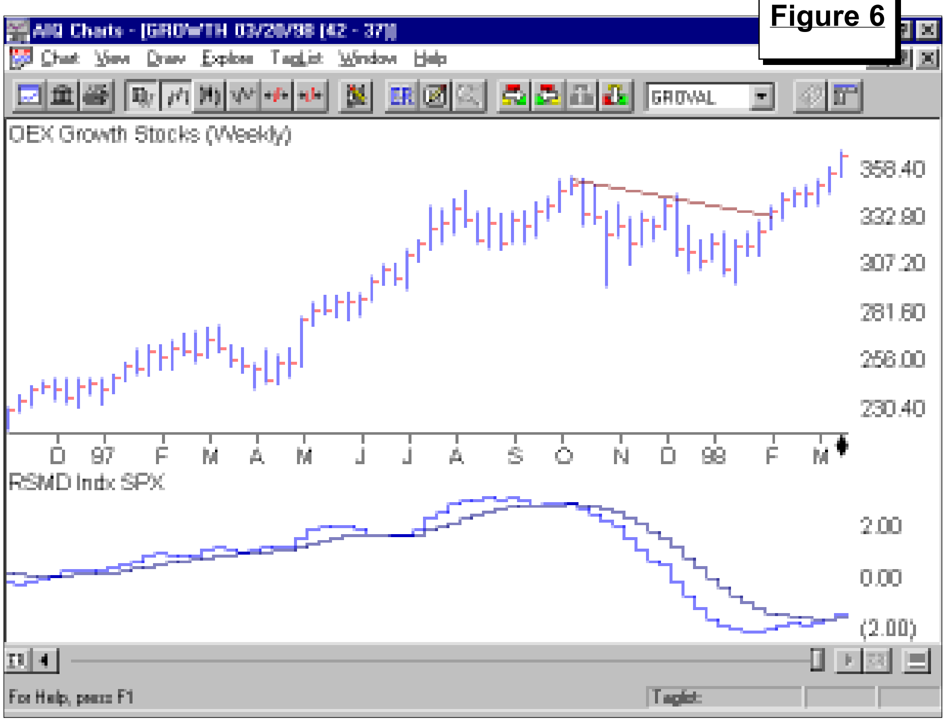


The growth group, however, was much weaker. It corrected in October but only partially recovered in early December. By late December, our growth group hit a new correction low.

Looking at the price charts is one method of identifying which group is stronger. Another method is to employ the relative strength indicators. One such indicator is the RSMD SPX. This indicator takes relative strength and plugs it into the MACD formula. The interpretation is simple — when the RSMD SPX is rising then the security you are plotting is outperforming the S&P 500. When the RSMD is falling, then the security is underperforming.

Figure 6 displays a weekly chart of the growth group along with the RSMD SPX indicator. We see that the growth group was outperforming the S&P 500 for most of the first half of 1997 until late September when the RSMD indicator began to fall and closed below its Signal Line. Growth stocks were not the place to be.

Figure 6



ADVANCED OEX ANALYSIS - 2 *continued . . .*

More recently, growth stocks have taken the leadership role once again.

In Figure 6, the weekly chart gives an intermediate term view. To get shorter term signals, simply switch to a daily chart. Also, since we want to compare the growth group versus the value group, we could set the RSMD indicator to use the value group instead of the SPX. Simply go to *Data Manager* and double click the growth group to bring up the *Edit Ticker* dialog box. In the *Relative Strength Symbols* section, enter the ticker symbol for the value group in the *Ticker* text box. Click *OK*.

A more traditional relative strength indicator is the RS Indx SPX. Unlike the RSMD indicator, the RS Indx SPX indicator does not use moving averages to smooth its price movement. There is no lagging element. A chart of the growth group is found in **Figure 7**, along with the RS Indx SPX. Once again, we see the indicator fell through the fourth quarter of 1997 and has since stabilized and is beginning to rise.

Performing a growth versus value analysis is not only useful for asset allocation but it is helpful in market timing as well. The high yielding value stocks are typically defensive plays and hold up better in poor market environments than the more aggressive growth stocks. Anytime we see the value stocks take leadership, as they did early last October, we know that people are switching to a more defensive strategy.

Figure 7

Summary

In this and last month's articles, we have performed many advanced features in the *Data Manager* application. Anyone who can create a market and his own industry group structure has mastered this part of the program!

We have created a market of OEX stocks which aid in timing the OEX index. We then created a growth group and a value group based on the OEX stocks. This not only helps identify leadership within the OEX index but also helps to determine whether Wall Street is in an aggressive mode (growth stocks outperforming) or a defensive mode (value stocks outperforming).

The information covered in these articles is explained in detail in AIQ's Advance Group Analysis video tape. Anyone who wants to perform this type of analysis and wants to see how to perform the *Data Manager* routines should consider purchasing this video tape. For more information on AIQ's video tapes, call AIQ sales, 1-800-332-2999. ■

MARKET REVIEW

After nearly three months of being bullish, the AIQ timing model registered two sell signals in April. The first came on April 17, confirmed by the Price Phase indicator the next day. Another sell signal was registered on April 21. One reason for the sell signals was a deterioration in the Advance/Decline Line which was moving lower in April at the same time that the Dow was making new highs.

The market outlook during these signals was a mixed bag. On one hand, two signals were registered. On the other hand, at the time of the market sell signals, nearly 80% of the stocks in the S&P 500 that were giving unconfirmed signals were on the buy side.

The market initially cooperated, especially on April 27 when the Dow fell about 150 points. As has been the case during this bull run, buying pressure emerged after weakness and the market quickly recovered its losses. By the end of the month, the S&P 500 had rallied back to the level where it was when the first sell signal was registered.

The strongest groups in April were Precious Metals, Containers & Packaging, Clothing & Fabrics, and Trucking. All these groups rose over 10%. The weakest groups were Tobacco and Medical & Biotechnology. These groups fell about 7%. ■

EDS ANALYSIS

FOLLOW-UP: EDS DIVERGENCE MODEL

By David Vomund

When we completed April's *Opening Bell*, which covered a highly effective Expert Design Studio (EDS) screening model, we knew we had something special. *Opening Bell* readers must have agreed as we received a lot of feedback and even some kudos. In this article, we'll do a quick follow-up by further testing the model and answering some of the questions that were asked.

Further Testing

One of the most useful features in EDS is its ability to compare each stock trade to an equivalent trade in the market. If the average return per stock trade is less than an equivalent trade in the market, then the model is not effective. Instead of buying the stock, you would do better by purchasing the market.

This leads to the important question "what is the market?" AIQ uses the S&P 500 index as a measure of the market. Yet the index is comprised of only 500 stocks and because it is a capitalization weighted index, the activity of the top 50 stocks determine about half of the index's return. The S&P 500 isn't representative of the 2200 stocks that our EDS model was screened on.

When an EDS model is backtested, each stock in your database is equally likely to meet the criteria. Therefore, it makes sense to compare EDS trading with an unweighted index of the stocks that you are screening. That way, we are comparing apples with apples.

With this in mind, we created an industry group that is comprised of all the stocks in the S&P 500 plus the NASDAQ 100 stocks. We called this group SPOTC. We chose these two indexes because they have mid- and large-cap stocks with enough volume to make the indicators valid.

We took the final model which appeared in the April *Opening Bell* and ran it on the list of stocks in both the S&P 500 and NASDAQ 100 (**Figure 8**). The results were compared to our SPOTC group. The testing time period covered just over three years and produced 60 trades. The average trade using our screening technique gained 5.08%, whereas the average trade in our unweighted SPOTC group gained 3.12%. Once again, the test is successful.

Clarifications

An area of confusion that arose from our April article involved the On Balance Volume (OBV) positive divergence rule. In our EDS model, we had a remark before the OBV rule stating that the rule looked for cases where OBV was down but price was up. This was misstated. It should have read OBV up and price down.

The second area of confusion involved our using the OBV Pct indicator in our EDS model instead of simply the OBV indicator. These two indicators are obviously very similar so the results are fairly similar as well. In our test, we did find OBV Pct to be slightly more effective. Test results using the OBV indicator instead of OBV Pct are slightly lower than our earlier test.

A final comment that we heard from readers was that no stocks appear on the report when the rule is run for a single day. This is due to the fact that very few stocks are currently able to meet the screening criteria. The number of stocks that pass the screening is a function of the size of your database and the type of market we are in. The bigger your database, the more likely a stock will pass the screening. Also, in a strong bullish market (such as now) there are only a few stocks that are below their 200 day moving average (this was one of the criteria in our screening). If we get a correction, that will change and more stocks will appear.

If you still want more stocks to pass the screening, simply ease the criteria on the Money Flow RSI (MF RSI) rule to a number below 70 (note: in our EDS model we want the MF RSI to be above 70). We ran the same test as in Figure 8 but this time lowered the MF RSI criteria to a level of 65. Simply lowering the requirement from 70 to 65 more than doubled the amount of trading. If you want even more stocks, lower the MF RSI cutoff even more.

It is likely that we'll have another update to this EDS model as we find other effective screening rules to help performance. We'll also try to develop an intermediate term EDS model and one for shorting. ■

Figure 8

allworks2

Start test date:	01/03/95			
End test date:	04/27/98			
		Winners	Losers	Neutral
Number of trades in test:	60	51	9	0
Average periodss per trade:	21	22	16	0
Maximum Profit/Loss:		21.58%	(16.62)%	
Average Drawdown:	(4.10)%	(2.86)%	(11.15)%	
Average Profit/Loss:	5.08%	7.94%	(11.15)%	
Average SPOTC Profit/Loss:	3.12%	3.74%	(0.41)%	
Probability:		85.00%	15.00%	
Average Annual ROI:	60.05%	89.95%	(175.56)%	
Annual SPOTC (Buy & Hold):	42.62%			
Reward/Risk Ratio:	4.04			