PERFORMANCE REVIEW 2000: WHICH STRATEGIES DID BEST

By John Bajkowski

The Graham Defensive Investor (Utility Sector) Screen was the best performing strategy last year, with a gain of 44%, while the Michael Murphy Technology screen lost the most, down 47.7%. The results were almost a mirror image of 1999.

The Stock Screens segment of the AAII Web site has grown into a popular stopping point for association members. Over the last three years we have presented and discussed a new screen every month, while also updating and tracking the success of past screens. The screens cover a full spectrum of investment approaches ranging from value investing in utilities to momentum investing of small-cap growth firms. Some of the approaches attempt to capture the investment philosophy of famous investors, while other screens explain and implement basic investing approaches.

We track the performance of the screens to help gain an understanding of their success and performance characteristics. Each month on our Web site we report the current companies passing about 50 separate screens using AAII's *Stock Investor Pro* software program and construct hypothetical portfolios for each screen. Each month new stocks are added to the portfolio if they qualify, and a stock is "sold" if it no longer meets the initial criteria.

Even with over three years of performance tracking under our belt, it is too early to determine if any approach has special characteristics that will make it a top performer over the long haul. But, we have had the opportunity to observe the reaction of the screens during at least some overall market and sector ups and downs. Determining long-term success requires testing over several market cycles at a minimum. Furthermore, these stock screens are only a first step in developing a real investment portfolio. These portfolios are merely computer-generated lists with no further individual company fundamental analysis. The other thing to keep in mind is that some of these screens were developed to examine and test the potential investment value of a specific investment factor, such as short interest, and resulting test portfolios are not balanced and diversified portfolios.

STYLE IS A KEY FACTOR

As 2000 is drawing to a close, the S&P 500 may show its first calendar year loss since 1990, breaking its five-year streak of double-digit gains with a resounding thud. As revealed in Table 1, most of the indexes show negative returns. Only the S&P/Barra Large Cap Value and S&P MidCap index show positive rates of return through December 8, virtually a complete reversal from last year when growth, large-cap stocks, and technology were the strongest-performing segments. The technology-heavy Nasdaq 100 lost almost a third of its value in 2000 after more than doubling in value in 1999.

"Cap" refers to market capitalization, which is determined by multiplying the number of shares outstanding by market price. The S&P 500 is a popular benchmark for stock market performance, but it only covers the largest companies traded on U.S. exchanges. The S&P MidCap 400 measures mid-sized firms while the S&P SmallCap 600 tracks small-cap companies.

The other matrix that is normally used to segment stocks is the growth versus value style. Value approaches seek stocks that are priced cheaply relative to tangible variables such as earnings, book value, sales, or cash flow.

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TABLE 1. PERFORMANCE OF STOCK SCREENS ON AAII'S WEB SITE

Strategy	Total Gain (%)*			Monthly Variability (%)***			Monthly Holdings	
Value	**2000****	**1999**	**1998**	**Std. Dev.**	**High**	**Low**	**Avg.**	**% Holdover**
Cash Rich Firms	39.7	37.1	–3.8	7.5	17.6	–20.7	38	72.3
Dogs of the Dow	–0.7	5.7	9.8	6.1	16.1	–13.1	10	91.7
Dogs of the Dow (Low Priced Five)	–1.4	–2.0	24.6	7.2	19.1	–14.0	5	81.1
David Dreman	28.5	–3.0	–1.5	5.7	12.6	–15.4	21	66.8
David Dreman Revised	33.0	10.7	1.9	7.9	15.0	–23.3	20	61.8
David Dreman with Est. Revisions	37.1	6.7	10.7	5.9	11.4	–15.7	8	23.7
Low Price–to–Free–Cash–Flow	16.1	10.0	2.6	5.2	13.7	–13.4	30	76.8
Fundamental Rule of Thumb	30.8	11.7	na	6.6	14.9	–11.0	50	73.5
Graham—Defensive Investor (Non–Utility)	9.3	3.6	9.6	6.0	15.7	–11.3	25	84.9
Graham—Enterprising Investor	13.0	–5.0	–7.3	6.4	23.4	–18.7	9	71.8
John Neff	22.3	17.4	na	5.2	15.8	–6.3	20	65.1
O'Shaughnessy—Value	13.2	–3.9	7.2	6.5	15.5	–14.0	50	78.3
P/E Relative	17.8	–6.0	na	4.9	13.3	–6.4	38	22.4
Geraldine Weiss Blue Chip Div. Yield	20.5	3.9	3.3	5.8	12.8	–11.5	13	76.4
Growth & Value								
Buffettology—EPS Growth	7.3	17.7	4.0	6.3	10.7	–20.4	36	87.1
Buffettology—Sustainable Growth	5.4	14.6	7.4	6.3	9.7	–17.5	22	84.8
Philip Fisher	–11.6	5.4	2.6	9.3	23.9	–26.7	47	72.0
Peter Lynch	8.4	8.9	1.3	4.7	10.5	–17.4	26	76.6
O'Shaughnessy—Growth	6.9	19.5	19.4	6.9	13.9	–17.9	50	60.8
T. Rowe Price	35.4	–4.5	1.8	6.5	13.2	–18.0	59	72.9
Stock Market Winners	11.9	–9.7	10.2	5.1	9.4	–8.4	10	34.7
Value on the Move (PEG with Est. Grth.)	19.5	11.0	2.1	7.2	15.7	–23.1	55	48.2
Value on the Move (PEG With Hist. Grth.)	14.6	18.0	1.5	5.9	12.7	–19.1	121	60.8
Ralph Wanger	–14.2	3.5	–18.5	6.2	10.3	–18.7	21	69.3
Growth								
Richard Driehaus	–13.1	107.4	na	15.2	51.3	–23.4	11	28.7
Investware Quality Growth	13.1	–3.0	14.5	6.9	18.2	–22.0	34	90.8
William O'Neil's CANSLIM	30.2	36.6	28.2	9.0	23.6	–23.1	12	42.7
Sector/Specialty								
Graham—Defensive Investor (Utility)	44.0	–8.4	14.6	4.9	12.0	–6.6	18	80.8
Est Rev Down	–9.0	21.9	–15.0	7.0	12.3	–23.3	202	22.3
Est Rev Down 5%	–8.4	27.8	–3.9	7.4	13.6	–23.2	56	10.0
Est Rev Up	6.0	38.2	29.9	7.2	12.2	–18.6	174	18.5
Est Rev Up 5%	5.5	107.1	43.3	11.8	30.8	–21.7	44	7.6
Insider Net Purchases	–30.0	7.5	na	9.6	16.6	–19.0	25	64.6
Michael Murphy Technology	–47.7	139.7	29.7	13.2	43.3	–20.8	18	79.2
Short % Outstanding	–10.9	–26.9	na	12.7	27.6	–24.1	12	78.1
Short Interest Change	–45.2	111.1	na	16.4	34.1	–27.4	25	80.0
Short Ratio	–36.4	2.2	na	7.1	15.8	–14.8	25	23.4
Indexes								
All Exchange Listed Stocks	–9.4	35.1	5.9	6.9	12.7	–20.2		
Dow Jones 30	–9.4	25.2	16.1	5.2	10.2	–15.1		
S&P 500	–10.5	19.5	26.7	5.2	9.7	–14.6		
S&P/Barra Large Cap Growth****	–18.5	28.3	42.1	6.1	9.2	–13.0		
S&P/Barra Large Cap Value****	0.9	12.7	14.7	5.1	10.4	–16.1		
S&P MidCap 400	8.0	13.3	17.7	6.3	12.0	–18.7		
S&P SmallCap	–1.1	11.5	–2.1	6.4	13.3	–19.4		
Nasdaq 100	–32.4	102.0	85.5	11.4	25.0	–23.6		

**Cumulative price appreciation; figures do not include dividends or transactions costs.*
***Cumulative price appreciation figures for 2000 through 12/8/2000.*
****The highest and lowest monthly gain or loss over the last three years; figures do not include dividends or transaction costs.*
*****Total return includes reinvestment of dividends; 2000 return figures through 11/30/2000.*

Growth approaches seek stocks with rapidly expanding sales and earnings, with little regard to the stock price. As is normal during periods of market turmoil, value approaches generally held up better than growth approaches. The S&P 500/Barra Large Cap Value index had a total return of 0.9% compared to a 18.5% loss by the S&P 500/Barra Large Cap Growth index. Value outpaced growth among mid-cap and small-cap stocks as well.

The performance of these segments is reflected in the performance of the stock screens presented on AAII.com. The screening approaches listed in Table 1 are grouped based on their growth versus value approach. The table shows the price change from January 1, 2000, through December 8, 2000, along with the gains or losses during 1999 and 1998. The Total Gain columns do not include dividends. Higher yield large-cap value strategies such as the Dogs of the Dow, and O'Shaughnessy—Value would be affected the most by dividend exclusion.

The Graham—Defensive Investor (Utility Sector) screen was the best performing strategy in 2000 with a

gain of 44.0%. The Michael Murphy Technology screen lost the most: –47.7% in 2000 after posting exceptional gains of 139.7% and 29.7% in 1999 and 1998, respectively. The reversal in the performance of the technology sector highlights the dangers of investing in best-performing market sectors without first appraising the sector's potential to continue its strong performance. So far, the growth-oriented screen following the O'Neil's CANSLIM approach has shown some of the most consistently strong performance gains: 30.2%, 36.6%, and 28.2% over the last three years.

RISK

When measuring performance, the risk of the strategy should also be considered. The Monthly Variability columns report the greatest monthly gain and loss as an indication of the volatility that occurred over the last three years. For example, the most that the Cash Rich Firms screen gained in a single month was 17.6%, while the most that it lost in a single month was 20.7%. By way of comparison, the most that the S&P 500 index gained in a single month was 9.7%, while its largest single monthly loss was 14.6%.

The Monthly Variability columns also report the monthly standard deviation over the full study period. Standard deviation is a measure of total risk, expressed as a monthly change, that indicates the degree of variation in return experienced relative to the average for a strategy over the test period. The higher the standard deviation, the greater the total risk of the strategy.

TURNOVER RATES

The Monthly Holdings columns provide data on portfolio holdings over time—the average number of stocks that were in each portfolio over the last three years along with the average holdover percentage from month to month. The Dogs of the Dow: Low Priced Five approach always has five stocks in the portfolio, but the O'Neil CANSLIM approach averaged 12 passing stocks with as many as 32 stocks and as little as one stock for a given month.

The percent holdover column gives an indication of the turnover for a given strategy. The higher the percentage holdover, the more often companies stay in a portfolio from month to month. The Dogs of the Dow approach averaged 91.7% in holdovers from month to month. Since the portfolio has 10 stocks, that means an average of one stock would have been replaced, while nine were held over for a given month. The holdover percentage is slightly higher than that of the Dogs of the Dow: Low Priced Five approach, which averaged 81.1%, but significantly higher than that of the O'Neil CANSLIM approach, which averaged only 42.7% in holdovers in the last three years.

As a general rule of thumb, approaches that focus on value tend to have less portfolio turnover than the pure growth approaches, tend to be less volatile, and outperform other approaches during bear markets. However, value approaches can fall behind other approaches, particularly in the strongest portion of a bull market.

PORTFOLIO CHARACTERISTICS

Table 2 presents the characteristics of the stocks that passed the screens in each approach at the end of November.

The current price-earnings ratio (price divided by trailing 12-month earnings per share) for this group of screens ranges from 3.8 for the value-oriented Fundamental Rule of Thumb screen to 34.5 for Investware Quality Growth screen.

The Graham—Enterprising portfolio illustrates some of the pitfalls of stock screening and undiversified portfolios. With a 1.2 maximum acceptable price-to-book-value ratio, the Graham—Enterprising screen has effectively been out of the market during the past three years. The few stocks passing the screen were typically special situations that do not necessarily capture the spirit of the screen. Only 10 stocks passed the current screen, with an average price-earnings ratio of 4.8, compared to the S&P 500's 24.4. While a very strict valuation rule may prevent you from buying in overheated markets, it may also leave you with an undiversified group of holdings that have more portfolio volatility than you might have expected.

Both the historical and estimated growth rates of earnings follow the predictable script. The more growth-oriented approaches typically have higher earnings growth rates, while the value approaches tend to have lower growth rates. Screens such as the Geraldine Weiss Blue Chip Dividend Yield value consistent earnings over high earnings growth rates. This screen requires at least four years in which earnings have increased out of the last seven years but has no minimum growth requirement. In contrast, the O'Neil CANSLIM screen requires a minimum 25% annual growth in earnings from continuing operations as well as earnings increases in each of the last five years.

Market capitalization is provided as a gauge for size of firms passing each screen. Strategies such as Dogs of the Dow and O'Shaughnessy value are clearly invested in the large-cap segment. Fundamental Rule of Thumb, Graham—Enterprising, Peter Lynch, Stock Market Winners, and Ralph Wanger are at the other end of the spectrum with relatively low market caps.

The relative strength index is calculated against the performance of the S&P 500. Stocks with performance equal to the S&P 500 over the last 52 weeks have a relative strength index of zero. Negative numbers indicate underperformance relative to the S&P 500, while positive numbers indicate outperformance. Many of the growth and growth & value screens look for high relative strength, while

TABLE 2. PORTFOLIO CHARACTERISTICS OF STOCK SCREENS

Strategy	P/E Ratio (X)	P/E to EPS Est. Growth (X)	Hist. EPS Growth (%)	Estimated Long-Term EPS Growth (%)	Market Cap. ($ Million)	52-Week Relative Strength (%)
Value						
Cash Rich Firms	13.1	0.65	22.5	26.9	191.5	–3.0
Dogs of the Dow	12.9	1.30	6.0	10.1	33,859.7	–15.5
Dogs of the Dow (Low Priced Five)	11.0	1.10	2.5	10.0	17,449.7	–26.0
David Dreman	9.8	0.90	14.2	11.6	3,303.6	16.5
David Dreman Revised	9.9	0.70	16.7	12.8	2,189.0	25.0
David Dreman with Est. Revisions	8.3	0.75	29.8	12.8	1,614.9	107.0
Low Price-to-Free-Cash-Flow	9.4	0.70	12.3	12.3	243.1	–21.0
Fundamental Rule of Thumb	3.8	0.30	34.3	22.3	94.6	–15.0
Graham—Defensive Investor (Non–Utility)	9.6	0.80	6.4	13.0	328.7	–14.0
Graham—Enterprising Investor	4.8	0.25	16.3	16.3	97.3	–18.5
John Neff	6.7	0.45	14.9	15.6	644.6	–27.0
O'Shaughnessy—Value	11.7	1.10	8.9	9.8	8,791.5	–17.0
P/E Relative	12.6	0.80	24.4	13.7	779.3	29.5
Geraldine Weiss Blue Chip Div. Yield	11.2	1.10	11.9	13.9	1,107.6	0.0
Growth & Value						
Buffettology—EPS Growth	13.6	0.80	30.2	20.0	685.4	31.0
Buffettology—Sustainable Growth	13.4	0.70	31.8	20.2	661.1	11.0
Philip Fisher	8.2	0.40	27.4	23.3	107.2	–34.0
Peter Lynch	6.8	0.50	27.7	14.8	22.7	–4.5
O'Shaughnessy—Growth	20.6	1.30	15.5	17.1	871.1	135.5
T. Rowe Price	11.6	0.80	36.8	15.2	397.9	17.0
Stock Market Winners	10.6	0.70	15.3	14.7	45.9	35.0
Value on the Move (PEG with Est. Grth.)	11.5	0.80	21.2	15.0	466.3	30.5
Value on the Move (PEG With Hist. Grth.)	12.3	1.00	21.5	14.8	402.6	27.0
Ralph Wanger	11.1	0.60	21.9	20.0	168.9	18.0
Growth						
Richard Driehaus	21.7	1.05	18.8	26.3	940.8	44.5
Investware Quality Growth	34.5	1.45	29.6	21.9	2,394.0	28.5
William O'Neil's CANSLIM	11.5	0.70	37.6	15.0	401.6	71.5
Sector/Specialty						
Graham—Defensive Investor (Utility)	11.5	2.70	4.9	5.3	2,041.8	16.0
Est Rev Down	12.4	1.00	11.6	15.2	1,236.6	–18.5
Est Rev Down 5%	11.3	0.70	15.2	17.5	781.4	–36.0
Est Rev Up	18.6	1.20	14.5	21.8	1,285.6	47.0
Est Rev Up 5%	26.4	1.60	12.0	23.3	1,470.4	80.0
Insider Net Purchases	8.4	0.50	1.6	20.0	167.8	–18.5
Michael Murphy Technology	8.7	0.40	32.2	25.4	424.6	–38.0
Short % Outstanding	8.0	0.65	21.5	21.5	199.0	–38.0
Short Interest Change	20.3	1.20	18.8	33.4	372.8	17.0
Short Ratio	11.5	0.90	–4.4	13.9	183.1	–32.0
All Exchange Listed Stocks	**13.4**	**1.10**	**8.4**	**18.0**	**133.9**	**–6.0**

Data as of 11/30/2000.

many of the value screens search for out-of-favor stocks, which often have low relative strength.

For details on how the screens were constructed and to follow their performance over time, go to the Stock Screens area of the AAII Web site at www.aaii.com/stkscrns/index.shtml.

CONCLUSION

As you look at the performance of the screens, do not simply follow the strategies with the highest performance. Instead, try to understand the forces that affect their performance. Here are some important questions to ask that will help you evaluate any series of screens that seek to capture an investment approach:

- How is the portfolio reacting relative to the current market environment? If it is deviating substantially, what is the cause of that deviation—is it the particular stock picks, or it is perhaps overconcentration in a particular sector that is a result of the particular set of screens you have chosen?
- Are the portfolio's characteristics more similar to a value-based or growth-based approach? That may give you a better idea of how the portfolio is likely to behave in the future.
- Are the screens actually capturing the kinds of companies you want to invest in based on your chosen investment approach? Also, are the screens producing any unintentional biases in your portfolio?
- What is the proper benchmark to measure the performance of your portfolio? It is important to look at the characteristics of your portfolio (market capitalization, industry concentration, growth vs. value) to properly select a benchmark to evaluate the performance of your holdings.
- How frequently do your screens cause your portfolio to substantially change? If trading is frequent, you need to consider developing "hold" criteria rather than selling whenever initial criteria is no longer met, which may cause you to sell winners too soon.

Most importantly, remember that screening is just a first step in investing. There are qualitative elements that cannot be captured effectively by a quantitative screening process. ❖