# AAII Stock Screens 2014 Review: Active Strategies Lag

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## Article Highlights

- The record highs set by the Dow and the S&P 500 were not matched by active strategies or many stocks.
- Though 36 AAII screens were up last year, just eight beat the S&P 500 as mid-cap and small-cap stocks underperformed large-cap stocks.
- The Rule #1 screen was the best-performing screen in 2014, with its passing stocks gaining 50.3%.

**Last year was decidedly a more mixed year for stocks than the headlines suggested.**

As record highs were established by the Dow Jones industrial average and the S&P 500 index, small-cap stocks and actively managed strategies lagged. We saw this differential play out in the performance of the AAII stock screens, with price gains for many of our strategies coming in below the performance achieved by the measures of large-cap stock performance.

The U.S. economic backdrop was favorable to stocks during the year. The U.S. unemployment rate fell to 5.8% in November 2014, compared to 7.0% in November 2013. The Federal Reserve's Federal Open Market Committee, now overseen by Janet Yellen, viewed economic conditions as strong enough to end its quantitative easing program (QE3). Measures of large-cap stock performance responded with a banner year in terms of performance. The Dow notched 34 record high closes as of our publication date, while the S&P 500 has recorded 49. The NASDAQ Composite index also reached 14-year highs, although it remained below its all-time high set back on March 10, 2010. Through the end of November, the S&P 500 is up 11.9% for the year.

As shown on page 7, large-cap growth stocks dominated last year. The S&P 500 Growth index experienced a total return of 16.0% through the end of November, compared to an 11.9% total return for the S&P 500 Value index. While the S&P 500 is up 11.9% through November 28, the S&P 400 Midcap index has risen 7.5% and the S&P 600 Smallcap index is up only 1.7%. Since few of the AAII screens have an explicit market-capitalization requirement, the failure of strong gains to filter across stocks of all sizes impacted the results of many of the strategies.

Valuations also provide some background color to this year's market and stock screens performance. The S&P 500 stocks tracked by AAII's *Stock Investor Pro* fundamental stock screening and research database program were trading with a median price-earnings ratio of 21.3 at the end of November, nearly equal to last year's 21.1. Over the last five years, the average median price-earnings ratio for the S&P 500 is 17.7. Based on 2015 forward earnings, the median price-earnings ratio for the S&P 500 is a more reasonable 16.8. The S&P 400 Midcap is trading at an even richer valuation. As of November 28, 2014, the median price-earnings ratio for mid-cap stocks was 22.5, compared to the five-year average median price-earnings ratio of 17.7. On a forward basis, the median price-earnings ratio is 17.2, again based on 2015 earnings. Lastly, the S&P 600 Smallcap stocks were trading with a median price-earnings ratio of 23.4 as of the end of November. The five-year average median price-earnings ratio for these small-cap companies is 18.7, while the forward price-earnings ratio based on 2015 projected earnings is 17.0.

## The Rankings

The 2014 results of AAII's stock screens provide further evidence that record highs by measures of large-cap stocks don't always reflect broad market strength. Of the 62 different screening methodologies tracked on AAII.com, 36 were up for the year through November while 26 were down. Only eight of the strategies we track have outperformed the S&P 500's

## Table 1. Performance of Stock Screens on AAII.com

| Value | Price Gain (%) YTD | 2013 | 2012 | 2011 | 2010 | Average Annual Price Gain (%) 5 Yr | 10 Yr | Since Incep | Risk Adj | Price Gain (%) Bull Mkt* | Bear Mkt* | Monthly Variability Largest Gain | Loss | Risk Measures Risk Index (X) | Ulcer Index (%) | Holdings Avg # | Turn-over (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Graham—Enterprising Investor Revised | 34.0 | 2.1 | (4.9) | (4.1) | 32.9 | 11.5 | 24.2 | 21.9 | 15.3 | 353.0 | (49.9) | 36.4 | (22.4) | 1.75 | 14.7 | 9 | 26.0 |
| Graham—Defensive Investor (Utility) | 15.1 | 10.0 | 1.2 | 8.6 | 4.6 | 9.0 | 7.2 | 8.2 | 8.3 | 77.4 | (31.4) | 12.0 | (13.4) | 0.94 | 9.9 | 18 | 13.9 |
| Price-to-Free-Cash-Flow | 11.5 | 97.8 | 1.1 | (7.0) | 39.2 | 25.4 | 17.7 | 20.7 | 14.5 | 777.9 | (62.8) | 51.2 | (31.7) | 1.78 | 16.0 | 30 | 22.1 |
| Dogs of the Dow | 10.1 | 27.9 | 9.6 | 10.7 | 19.4 | 15.7 | 3.5 | 3.3 | 2.6 | 210.2 | (69.0) | 17.1 | (23.4) | 1.22 | 23.6 | 10 | 7.4 |
| Piotroski: High F-Score (8) | 7.5 | 137.6 | 91.7 | (36.4) | 138.8 | 33.9 | 27.0 | 30.0 | 17.8 | 1,043.2 | (53.6) | 43.1 | (42.0) | 2.07 | 14.7 | 21 | 23.6 |
| Weiss Blue Chip Div Yield | 7.4 | 21.3 | 19.2 | 7.6 | 26.9 | 16.5 | 10.1 | 11.1 | 10.3 | 203.7 | (43.1) | 16.0 | (16.8) | 1.22 | 11.8 | 12 | 24.3 |
| Dogs of the Dow: Low Priced 5 | 7.4 | 34.5 | 15.7 | 13.1 | 17.3 | 18.1 | 0.2 | 2.6 | 0.3 | 259.9 | (82.9) | 27.6 | (34.8) | 1.58 | 36.7 | 5 | 15.3 |
| Cash Rich Firms | 4.6 | 36.6 | 10.5 | (32.8) | 14.4 | 5.0 | 4.4 | 10.8 | 9.6 | 91.7 | (45.6) | 17.6 | (20.7) | 1.38 | 15.7 | 29 | 24.6 |
| O'Shaughnessy: Value | (2.0) | 29.6 | 20.3 | (11.2) | 7.4 | 8.2 | 2.2 | 5.8 | 5.5 | 149.3 | (69.1) | 22.0 | (23.8) | 1.34 | 16.5 | 50 | 21.7 |
| Graham—Defensive Investor (Non-Util) | (8.6) | 33.9 | 18.9 | 7.0 | 31.4 | 16.5 | 15.5 | 16.5 | 13.8 | 259.0 | (52.1) | 25.8 | (17.3) | 1.38 | 12.3 | 20 | 19.5 |
| Fundamental Rule of Thumb | (9.4) | 46.1 | (6.9) | (35.2) | 17.7 | 0.1 | 5.5 | 13.1 | 10.4 | 89.2 | (57.0) | 33.8 | (19.2) | 1.71 | 19.1 | 50 | 21.2 |
| Graham—Enterprising Investor | (11.7) | 9.6 | 1.1 | (1.1) | 43.5 | 6.6 | 12.6 | 15.8 | 11.8 | 126.9 | (50.3) | 33.1 | (23.4) | 1.75 | 15.8 | 4 | 43.1 |
| Magic Formula | (12.1) | 27.9 | 7.9 | (30.6) | 26.6 | 3.1 | 4.1 | 9.8 | 8.5 | 130.9 | (51.6) | 30.7 | (22.4) | 1.65 | 16.5 | 30 | 23.6 |
| Schloss | (17.4) | 16.7 | 13.1 | (35.1) | 12.5 | (3.8) | 5.5 | 9.7 | 8.2 | 18.0 | (37.6) | 27.1 | (40.4) | 1.92 | 21.7 | 12 | 54.4 |
| **Value With Price Momentum** | | | | | | | | | | | | | | | | | |
| O'Shaughnessy: Tiny Titans | 21.4 | 54.4 | 20.0 | (22.9) | 21.1 | 18.4 | 10.2 | 25.7 | 16.5 | 272.1 | (67.3) | 37.4 | (21.0) | 1.93 | 21.8 | 25 | 41.3 |
| Lakonishok | 9.2 | 26.8 | 7.5 | (0.6) | 32.7 | 16.2 | 14.2 | 14.4 | 13.1 | 219.6 | (32.5) | 16.6 | (17.9) | 1.21 | 10.0 | 31 | 90.0 |
| O'Shaughnessy: Growth | 0.9 | 38.7 | 28.8 | (7.5) | 21.3 | 17.1 | 9.6 | 16.5 | 13.1 | 195.8 | (57.2) | 18.6 | (17.9) | 1.52 | 18.3 | 50 | 37.8 |
| O'Shaughnessy: All Cap | (1.9) | 18.4 | 12.4 | (5.0) | 29.4 | 11.0 | 7.4 | 11.0 | 9.7 | 118.0 | (52.1) | 18.4 | (21.5) | 1.38 | 17.5 | 21 | 34.1 |
| O'Shaughnessy: Small Cap Gr & Val | (3.1) | 46.8 | 30.3 | (0.3) | 26.1 | 21.4 | 13.6 | 18.5 | 14.3 | 171.2 | (50.6) | 18.5 | (18.2) | 1.53 | 17.9 | 25 | 49.7 |
| O'Shaughnessy: Growth Market Leaders | (4.7) | 48.5 | 15.8 | (1.2) | 15.7 | 16.2 | 6.7 | 7.3 | 7.1 | 139.2 | (50.5) | 13.6 | (18.6) | 1.23 | 19.8 | 10 | 43.0 |
| **Growth** | | | | | | | | | | | | | | | | | |
| Inve$tWare Quality Growth | 20.9 | 30.4 | 19.7 | (9.4) | 17.3 | 16.4 | 8.9 | 8.0 | 7.7 | 203.8 | (44.7) | 18.2 | (22.0) | 1.26 | 13.3 | 20 | 11.5 |
| Dual Cash Flow | (2.6) | 48.9 | 5.1 | (21.6) | 31.0 | 10.8 | 6.7 | 14.0 | 11.4 | 182.4 | (61.0) | 34.7 | (23.6) | 1.54 | 17.0 | 67 | 31.2 |
| Return on Equity | (8.1) | 34.2 | 10.1 | (5.7) | 32.0 | 12.4 | 8.7 | 12.2 | 10.9 | 168.3 | (47.2) | 14.6 | (22.2) | 1.29 | 11.7 | 32 | 20.7 |
| **Growth With Price Momentum** | | | | | | | | | | | | | | | | | |
| O'Neil's CAN SLIM | 46.4 | 13.1 | 18.0 | (10.2) | (9.6) | 9.7 | 20.1 | 25.3 | 16.3 | 213.1 | (10.1) | 69.6 | (23.1) | 1.92 | 12.2 | 6 | 57.1 |
| O'Neil's CAN SLIM Rev 3rd Ed | 44.0 | 55.2 | 7.3 | (30.1) | 42.7 | 19.0 | 10.2 | 18.4 | 12.9 | 179.2 | (27.8) | 52.7 | (26.7) | 1.86 | 15.4 | 8 | 64.7 |
| O'Neil's CAN SLIM No Float | 2.7 | 30.8 | 8.9 | (3.9) | 20.6 | 12.1 | 8.0 | 16.0 | 13.3 | 196.6 | (61.6) | 23.5 | (35.5) | 1.40 | 18.6 | 16 | 49.3 |
| Kirkpatrick Growth | (1.9) | 18.1 | (9.8) | (11.6) | 15.3 | 2.2 | 14.5 | 15.5 | 10.7 | 97.5 | (38.7) | 64.1 | (23.1) | 2.15 | 27.7 | 12 | 61.7 |
| Driehaus | (3.3) | 47.7 | 16.7 | (14.1) | 65.7 | 20.0 | 18.8 | 13.1 | 9.4 | 401.5 | (53.4) | 51.3 | (25.7) | 2.27 | 39.3 | 14 | 63.9 |
| Foolish Small Cap 8 | (31.6) | 32.9 | 16.9 | (14.9) | 25.2 | 5.0 | 0.5 | 9.3 | 7.8 | 106.3 | (67.7) | 38.8 | (25.9) | 2.26 | 25.0 | 16 | 42.7 |
| **Growth & Value** | | | | | | | | | | | | | | | | | |
| Rule #1 Investing | 50.3 | 47.1 | 11.3 | (1.0) | 40.0 | 28.2 | 13.8 | 14.2 | 10.7 | 574.7 | (54.0) | 27.0 | (26.8) | 1.81 | 18.9 | 13 | 26.0 |
| Templeton | 9.8 | 29.4 | 31.0 | 3.2 | 22.4 | 19.7 | 11.0 | 11.1 | 10.1 | 222.3 | (40.0) | 14.5 | (23.1) | 1.26 | 13.5 | 21 | 28.3 |
| Buffett: Hagstrom | 8.5 | 35.4 | 13.0 | 8.2 | 27.7 | 19.3 | 12.5 | 14.9 | 14.0 | 227.3 | (39.8) | 13.2 | (19.0) | 1.12 | 9.5 | 30 | 19.6 |
| Dreman | 8.5 | 27.6 | 20.6 | (11.7) | 22.7 | 14.0 | 7.0 | 11.0 | 10.1 | 144.7 | (55.0) | 23.9 | (22.2) | 1.25 | 17.7 | 21 | 31.5 |
| Murphy Technology | 6.2 | 39.7 | 42.3 | (29.8) | 40.0 | 16.5 | 5.8 | (1.4) | (15.4) | 193.0 | (58.3) | 58.5 | (44.9) | 2.77 | 73.9 | 11 | 21.1 |
| Fisher (Philip) | 5.6 | 39.5 | (0.6) | (50.9) | 9.2 | (2.9) | (0.1) | 4.4 | 1.8 | 64.2 | (58.2) | 32.8 | (27.9) | 2.20 | 28.8 | 19 | 32.4 |
| T. Rowe Price | 4.4 | 28.5 | (15.0) | 117.4 | 11.9 | 23.9 | 9.3 | 10.0 | 8.6 | 349.4 | (62.5) | 33.5 | (20.0) | 1.67 | 23.2 | 8 | 45.3 |
| Buffettology: EPS Growth | 4.1 | 38.4 | 17.4 | 3.8 | 20.5 | 17.6 | 11.1 | 11.1 | 10.3 | 258.7 | (48.4) | 15.1 | (20.8) | 1.22 | 11.4 | 47 | 11.7 |
| Buffettology: Sustainable Growth | 3.9 | 35.8 | 8.8 | 0.7 | 18.4 | 14.7 | 11.0 | 11.5 | 10.4 | 226.2 | (41.9) | 16.5 | (20.4) | 1.29 | 10.2 | 33 | 13.3 |
| Kirkpatrick Bargain | 3.4 | 7.3 | 14.9 | 3.6 | 9.4 | 8.8 | 13.3 | 8.1 | 7.7 | 114.5 | (43.2) | 21.1 | (21.7) | 1.37 | 16.0 | 16 | 64.2 |
| Neff | 2.4 | 39.5 | 15.0 | (4.2) | 35.0 | 18.5 | 10.1 | 18.7 | 14.0 | 303.6 | (52.8) | 32.6 | (21.7) | 1.64 | 14.9 | 22 | 32.9 |
| Dividend (High Relative Yield) | 2.1 | 40.6 | 9.8 | 3.0 | 19.4 | 14.9 | 6.4 | 9.2 | 9.3 | 158.0 | (40.4) | 12.5 | (14.2) | 0.97 | 12.2 | 39 | 20.0 |
| Wanger (Revised) | 0.6 | 51.1 | 23.5 | (5.2) | 12.5 | 16.3 | 10.0 | 9.7 | 8.7 | 177.4 | (51.3) | 22.8 | (19.8) | 1.44 | 16.3 | 30 | 26.9 |
| Foolish Small Cap 8 Revised | (2.1) | 0.4 | 41.8 | (49.2) | 15.4 | (1.2) | 5.5 | 14.2 | 10.1 | 100.9 | (64.0) | 28.1 | (31.1) | 2.14 | 22.8 | 5 | 39.7 |
| Lynch | (3.7) | 24.3 | 0.7 | (27.9) | 24.9 | 4.4 | 6.1 | 11.7 | 10.7 | 111.1 | (47.5) | 18.9 | (21.3) | 1.24 | 14.7 | 25 | 21.1 |
| Price-to-Sales | (5.2) | 36.3 | 11.3 | (2.6) | 29.6 | 14.6 | 9.1 | 15.0 | 12.9 | 204.3 | (55.1) | 18.3 | (20.6) | 1.33 | 13.3 | 54 | 38.9 |
| Zweig | (13.7) | 26.2 | 6.4 | (18.3) | 12.8 | 3.9 | 2.2 | 17.5 | 12.3 | 33.4 | (54.4) | 32.7 | (24.2) | 1.89 | 25.6 | 11 | 41.8 |
| Kirkpatrick Value | (17.0) | 21.9 | 19.4 | (15.1) | (25.5) | (5.2) | 7.8 | 10.0 | 8.1 | (19.6) | (23.3) | 49.0 | (25.3) | 2.22 | 27.0 | 3 | 73.9 |

**(Continued on next page)**

## Table 1. Performance of Stock Screens on AAII.com (Cont.)

| Growth & Value | Price Gain (%) YTD | 2013 | 2012 | 2011 | 2010 | Average Annual Price Gain (%) 5 Yr | 10 Yr | Since Incep | Risk Adj | Price Gain (%) Bull Mkt* | Bear Mkt* | Monthly Variability Largest Gain | Loss | Risk Measures Risk Index (X) | Ulcer Index (%) | Holdings Avg # | Turn-over (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ADR Screen | 31.8 | 33.2 | 1.4 | (25.9) | 18.8 | 9.9 | 7.7 | 9.3 | 8.4 | 172.5 | (68.7) | 31.1 | (29.7) | 1.48 | 27.4 | 24 | 43.7 |
| Value on the Move—PEG With Est Gr | 10.0 | 59.5 | 9.0 | (0.3) | 29.7 | 21.3 | 14.4 | 19.8 | 16.4 | 256.5 | (50.2) | 15.7 | (23.1) | 1.34 | 13.6 | 39 | 44.2 |
| Stock Market Winners | 8.0 | 34.8 | 13.6 | 21.2 | 124.6 | 35.1 | 13.8 | 20.5 | 16.0 | 411.7 | (51.3) | 22.0 | (23.4) | 1.46 | 16.8 | 11 | 59.1 |
| Value on the Move—PEG With Hist Gr | 3.4 | 49.2 | 4.3 | 1.0 | 31.7 | 18.1 | 10.1 | 14.5 | 14.0 | 199.7 | (50.1) | 12.7 | (19.1) | 1.06 | 13.4 | 78 | 35.9 |
| Oberweis Octagon | (6.1) | 38.9 | 32.6 | (14.7) | 78.4 | 21.7 | 7.2 | 13.4 | 10.1 | 219.2 | (70.6) | 24.6 | (23.2) | 1.92 | 26.6 | 16 | 41.8 |
| MAGNET Complex | (11.4) | 32.9 | (19.6) | 6.9 | (20.4) | (4.3) | (6.8) | 11.6 | 8.4 | (32.0) | (55.9) | 63.0 | (28.2) | 2.71 | 42.5 | 2 | 73.5 |
| MAGNET Simple | (14.4) | (31.1) | (12.4) | 19.5 | 56.1 | (0.7) | 13.1 | 15.5 | 9.5 | 276.3 | (75.9) | 52.1 | (34.0) | 2.99 | 27.7 | 3 | 68.5 |
| Muhlenkamp | (49.1) | (14.3) | (3.0) | (45.9) | 2.7 | (24.0) | (12.7) | (0.4) | (4.5) | (60.9) | (49.0) | 21.0 | (26.2) | 1.58 | 26.9 | 18 | 23.8 |
| **Earnings Estimates** | | | | | | | | | | | | | | | | | |
| Dreman With Est Revisions | 9.7 | 35.8 | 13.0 | 21.6 | 26.5 | 22.4 | 15.4 | 16.3 | 13.7 | 288.7 | (39.9) | 21.4 | (26.2) | 1.36 | 14.9 | 13 | 83.2 |
| P/E Relative | 6.6 | 29.5 | 14.3 | (1.9) | 29.6 | 16.6 | 14.4 | 16.5 | 15.3 | 199.0 | (27.6) | 18.4 | (18.3) | 1.13 | 8.0 | 32 | 76.8 |
| Est Rev: Top 30 Up | 6.5 | 42.1 | 21.9 | (2.3) | 47.6 | 24.0 | 23.5 | 25.5 | 16.9 | 421.9 | (37.8) | 36.4 | (26.7) | 1.84 | 20.2 | 179 | 81.1 |
| Est Rev: Up 5% | 3.8 | 27.7 | 28.8 | 6.1 | 35.9 | 21.6 | 23.3 | 27.1 | 18.2 | 322.4 | (23.4) | 30.8 | (21.7) | 1.76 | 15.6 | 41 | 92.6 |
| Est Rev: Down 5% | (16.5) | 28.2 | 9.2 | (31.1) | 30.3 | 2.6 | 0.0 | 0.0 | (6.1) | 110.1 | (63.8) | 33.5 | (30.5) | 1.96 | 32.8 | 75 | 89.2 |
| Est Rev: Lowest 30 Down | (24.1) | 29.7 | 9.3 | (34.1) | 37.8 | 1.1 | (2.1) | (0.5) | (9.9) | 122.8 | (71.0) | 43.0 | (29.9) | 2.34 | 34.1 | 219 | 79.5 |
| **Specialty** | | | | | | | | | | | | | | | | | |
| Insider Net Purchases | (17.0) | 21.5 | 11.5 | (31.4) | 7.4 | (3.0) | (6.0) | (1.3) | (8.2) | 62.8 | (65.5) | 27.8 | (27.2) | 1.87 | 36.0 | 29 | 30.0 |

| Indexes | Price Gain (%) YTD | 2013 | 2012 | 2011 | 2010 | Average Annual Price Gain (%) 5 Yr | 10 Yr | Since Incep | Risk Adj | Price Gain (%) Bull Mkt* | Bear Mkt* | Monthly Variability Largest Gain | Loss | Risk Measures Risk Index (X) | Ulcer Index (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S&P 500 | 11.9 | 29.6 | 13.4 | (0.0) | 12.8 | 13.5 | 5.8 | 4.6 | 4.6 | 159.1 | (52.6) | 10.8 | (16.8) | 1.00 | 21.9 |
| S&P 500 Growth (w/divs) | 16.0 | 35.5 | 14.6 | 4.7 | 15.0 | 16.8 | 8.9 | 6.5 | 6.5 | 198.0 | (44.4) | 10.8 | (16.5) | 1.10 | 31.4 |
| S&P 500 Value (w/divs) | 11.9 | 33.7 | 17.7 | (0.5) | 15.1 | 15.2 | 7.4 | 6.1 | 6.1 | 187.6 | (56.0) | 11.3 | (17.1) | 1.00 | 17.4 |
| S&P MidCap 400 | 7.5 | 31.6 | 16.1 | (3.1) | 24.9 | 16.1 | 8.5 | 9.0 | 8.6 | 195.0 | (50.5) | 14.8 | (21.8) | 1.20 | 13.5 |
| S&P MidCap 400 Growth (w/divs) | 7.3 | 32.8 | 15.8 | (0.9) | 30.6 | 18.6 | 10.7 | 12.1 | 10.8 | 219.4 | (47.7) | 19.0 | (22.2) | 1.31 | 13.8 |
| S&P MidCap 400 Value (w/divs) | 10.5 | 34.3 | 20.1 | (2.4) | 22.8 | 18.0 | 9.9 | 8.9 | 8.7 | 224.8 | (49.4) | 15.7 | (21.8) | 1.12 | 13.1 |
| S&P SmallCap 600 | 1.7 | 39.7 | 14.8 | (0.2) | 25.0 | 17.2 | 7.7 | 8.1 | 7.8 | 204.3 | (52.2) | 17.3 | (20.2) | 1.28 | 14.9 |
| S&P SmallCap 600 Growth (w/divs) | 0.8 | 42.6 | 14.9 | 4.1 | 28.0 | 19.2 | 9.6 | 9.5 | 8.8 | 238.0 | (51.1) | 17.0 | (21.7) | 1.32 | 13.8 |
| S&P SmallCap 600 Value (w/divs) | 4.7 | 35.6 | 17.8 | (1.2) | 24.7 | 17.4 | 8.2 | 8.7 | 8.3 | 206.1 | (51.0) | 18.4 | (19.6) | 1.23 | 15.1 |
| Dow Jones 30 | 7.6 | 26.5 | 7.3 | 5.5 | 11.0 | 11.5 | 5.5 | 4.9 | 5.0 | 134.3 | (49.3) | 11.8 | (15.1) | 0.97 | 15.9 |
| NASDAQ 100 | 20.8 | 35.0 | 16.8 | 2.7 | 19.2 | 19.7 | 10.7 | 9.1 | 8.0 | 250.7 | (50.1) | 25.0 | (27.5) | 1.81 | 53.7 |
| All Exchange-Listed Stocks | 4.7 | 38.1 | 14.8 | (12.3) | 26.2 | 14.2 | 7.3 | 10.6 | 9.5 | 219.5 | (58.6) | 23.9 | (22.1) | 1.38 | 16.7 |

**Bull market period is March 1, 2009, through November 28, 2014. Bear market period is November 1, 2007, through February 28, 2009.*
*Unless otherwise stated, figures do not include dividends or transaction costs.*
*Source: AAII's* Stock Investor Pro*/Thomson Reuters. Data as of 11/28/2014.*

***See the AAII Stock Screens area on AAII.com for details on each approach.***

11.9% year-to-date price gain through November 28. The median return of all the AAII stock screens, again through November 28, was 3.1%. In 2014, none of the screens turned in their best annual returns.

Table 1 provides summary performance, risk and volatility statistics for the stock screening strategies we track at AAII.com. The strategies represent our quantitative interpretations of a wide array of investment approaches. (See the box "The AAII Stock Screens" on page 14 for more information about them.)

All of these screens have been created and backtested using *Stock Investor Pro* and all but two—the Dogs of the Dow and Dogs of the Dow—Low-Priced 5 screens—are prebuilt into the software. The table presents the price change performance (excluding dividends and transactions costs, such as commissions, bid-ask spreads, time and price slippage, etc.) over various time periods for each stock screening strategy.

The screens are grouped in Table 1 by style to identify their underlying premise. These style groupings are: value, value with price momentum, growth, growth with price momentum, growth & value, growth & value with price momentum, earnings estimates and specialty. Within each group, the screens are ranked in descending order by year-to-date price performance through November 28, 2014. The end of the table shows performance data for several market indexes and stock groups.

*(continued on page 10)*

# What It Takes: Fundamental Characteristics of the 2014 Winners

Table 2 presents the current characteristics of the top- and bottom-performing screening strategies for 2014, as well as the risk-adjusted winners and losers since the start of 1998.

Compared to last year, this was a relatively quiet year. Whereas all but two of the screens we tracked last year ended the year with a gain, 36 of the 62 screens are up year-to-date for this year. The average gain for the screening methodologies we track is 2.2% year-to-date, while the median is 3.1%. By comparison, the S&P 500 large-cap index is up 11.9% through November 28, 2014.

None of the methodologies achieved an all-time high single-year gain this year and only 10 outperformed their historical average annual returns.

Note that no companies currently pass the year-to-date top-performing strategy, the Rule #1 screen.

## Market Capitalization

The median market capitalization (share price times number of shares outstanding) of the stocks that make up the major S&P indexes are:

- S&P 500 index, $18.5 billion;
- S&P MidCap 400 index, $3.8 billion; and
- S&P SmallCap 600 index: $1.1 billion.

Among the top 2014 performers, two currently have

**Table 2. Characteristics of Winning and Losing Stock Screens**

| | Price Change (%) | | P/E Ratio (X) | Price-to-Book-Value Ratio (X) | Div Yield (%) | P/E to EPS Grth (PEG) (%) | 5-Yr Hist EPS Grth (%) | Market Cap ($ Mil) | 52-Wk Rel Str Index (%) |
|---|---|---|---|---|---|---|---|---|---|
| | YTD | Ann'l Risk-Adj | | | | | | | |
| **Top Performers: 2014** | | | | | | | | | |
| Rule #1 Investing (Growth & Value) | 50.3 | 10.7 | *No companies currently passing this screen.* | | | | | | |
| O'Neil's CAN SLIM (Gr w/Price Momentum) | 46.4 | 16.3 | 15.0 | 3.20 | 0.00 | 1.2 | 40.9 | 639.3 | 14.9 |
| O'Neil's CAN SLIM Rev 3rd Ed (Gr w/Price Mom) | 44.0 | 12.9 | 32.8 | 5.91 | 0.45 | 1.4 | (0.5) | 1,304.6 | 18.1 |
| Graham—Enterprising Investor Revised (Value) | 34.0 | 15.3 | 11.5 | 1.08 | 2.80 | 0.7 | 10.2 | 535.0 | (22.8) |
| ADR Screen (Gr & Val With Price Mom) | 31.8 | 8.4 | 16.5 | 2.64 | 2.45 | 1.2 | 29.6 | 14,282.4 | (8.4) |
| **Bottom Performers: 2014** | | | | | | | | | |
| Muhlenkamp (Gr & Val With Price Mom) | (49.1) | (4.5) | 5.0 | 1.38 | 1.35 | 0.3 | 40.1 | 363.0 | (10.7) |
| Foolish Small Cap 8 (Gr With Price Mom) | (31.6) | 7.8 | 9.5 | 2.03 | 0.90 | 0.5 | (6.4) | 392.0 | 61.2 |
| Est Rev: Lowest 30 Down (Earnings Est) | (24.1) | (9.9) | 30.8 | 1.43 | 0.00 | 1.5 | 11.0 | 518.1 | (34.9) |
| Schloss (Value) | (17.4) | 8.2 | 24.9 | 0.64 | 0.00 | na | 18.9 | 32.6 | (49.7) |
| Kirkpatrick Value (Gr & Value) | (17.0) | 8.1 | 19.8 | 1.96 | 0.80 | 0.5 | 15.3 | 6,088.3 | 3.6 |
| **Top Performers: Total History, Risk-Adjusted** | | | | | | | | | |
| Est Rev: Up 5% (Earnings Estimates) | 3.8 | 18.2 | 44.8 | 4.23 | 0.00 | 1.8 | 11.1 | 1,155.3 | (4.2) |
| Piotroski: High F-Score (8) (Value) | 7.5 | 17.8 | 20.5 | 0.81 | 0.00 | 1.1 | (10.9) | 70.1 | (22.7) |
| Est Rev: Top 30 Up (Earnings Estimates) | 6.5 | 16.9 | 35.1 | 4.03 | 0.00 | 1.7 | 11.1 | 1,120.3 | (7.2) |
| O'Shaughnessy: Tiny Titans (Val w/Price Mom) | 21.4 | 16.5 | 19.3 | 2.31 | 0.00 | 2.7 | 10.5 | 64.9 | 51.5 |
| Value on Move—PEG w/Est Gr (Gr & Val w/Pr Mom) | 10.0 | 16.4 | 20.7 | 3.75 | 0.00 | 0.8 | 27.3 | 3,802.5 | 22.5 |
| **Bottom Performers: Total History, Risk-Adjusted** | | | | | | | | | |
| Murphy Technology (Growth & Value) | 6.2 | (15.4) | 7.7 | 1.07 | 1.30 | 0.7 | (32.9) | 571.7 | (9.6) |
| Est Rev: Lowest 30 Down (Earnings Est) | (24.1) | (9.9) | 30.8 | 1.43 | 0.00 | 1.5 | 11.0 | 518.1 | (34.9) |
| Insider Net Purchases (Specialty) | (17.0) | (8.2) | 62.0 | 3.76 | 0.00 | 4.9 | 11.0 | 355.6 | (12.7) |
| Est Rev: Down 5% (Earnings Estimates) | (16.5) | (6.1) | 22.2 | 1.83 | 0.00 | 1.3 | 13.0 | 708.7 | (28.4) |
| Muhlenkamp (Gr & Val w/Price Mom) | (49.1) | (4.5) | | | | | | | |
| **Indexes** | | | | | | | | | |
| S&P 500 | 11.9 | 4.6 | 21.3 | 3.25 | 1.70 | 1.7 | 10.5 | 18,538.0 | 0.0 |
| All Exchange-Listed Stocks | 4.7 | 9.5 | 20.3 | 1.95 | 0.00 | 1.6 | 12.3 | 780.3 | (12.3) |

*Performance figures do not include dividends or transaction costs.*
*Source: AAII's* Stock Investor Pro*/Thomson Reuters. Data as of November 28, 2014.*

passing companies with median market capitalizations that fall squarely into the small-cap category: O'Neil's CAN SLIM ($639.3 million) and Graham—Enterprising Value Revised ($535.0 million). These strategies defied the overall trend in the market this year where large-cap stocks outperformed mid- and small-cap stocks, as measured by the S&P market-cap indexes.

## Multiples

Looking at the price-earnings ratios (price divided by trailing 12-month earnings per share) for the stocks currently passing the top-performing screens for 2014, the current Graham—Enterprising Investor Revised stocks have a median price-earnings ratio of 11.5. This is slightly more than half that of the median value for all exchange-listed stocks currently in the *Stock Investor Pro* database (20.3). Another of this year's top performers, O'Neil's CAN SLIM, has a median price-earnings ratio (15.0) that is also well below that of the typical exchange-listed stock. The Graham screen does have an explicit value filter, but the O'Neil screen focuses on strong earnings growth, a filter you would generally not associate with relatively low valuations.

Ironically, O'Neil's CAN SLIM Revised 3rd Edition screen has the highest price-earnings ratio among the top performers of 2014; its filters are similar to but not quite as stringent as those of the original CAN SLIM screen. The fifth-best-performing screen for the year, the ADR screen, has both price momentum and valuation elements.

Only the Graham—Enterprising Investor Revised screen explicitly sets limits on the price-to-book ratio; the companies currently passing the screen have a median price-to-book ratio of 1.08, 45% lower than the median price-to-book-value ratio for the typical exchange-listed stock.

Looking at the valuations of 2014's worst-performing strategies, four have some element of value. The Muhlenkamp screen, this year's worst-performing screen, has an absolute price-earnings ceiling at 17, yet the median price-earnings ratio of the companies currently passing is only 5.0. The Schloss strategy looks for stocks trading with a price-to-book-value ratio of 1.0 or less; the companies currently passing this screen have a median price-to-book-value ratio of 0.64. The Estimate Revisions: Lowest 30 Down has the highest price-earnings ratio among the worst-performing methodologies at 30.8.

The ratio of price-earnings to earnings per share growth is called the PEG ratio and attempts to measure the trade-off between price-earnings ratios and earnings per share growth rates. Investors are willing to pay more for current earnings when there are reasonable expectations of growth and higher earnings in the future.

One way to compute the PEG ratio is to divide the trailing price-earnings ratio (price divided by earnings per share for the trailing 12 months) by the estimated earnings per share growth rate for the next three to five years. Normally, companies with PEG ratios near 1.0 are considered fairly valued. Ratios above 1.5 may indicate overvalued stocks, and ratios below 0.5 potentially indicate attractively priced (undervalued) stocks.

Looking at this year's top-performing methodologies, we see that the four screens that were generating passing companies at the end of November all have PEG ratios that are below that of the typical exchange-listed stock. Interestingly enough, the same can be said about four of the five worst-performing screens. A PEG ratio for the Schloss screen cannot be calculated because the small companies that tend to pass this screen do not have consensus earnings growth estimates.

## Relative Strength

The relative strength index in Table 2 is calculated against the performance of the iShares Core S&P 500 ETF (IVV), which is used as a proxy for the S&P 500 index. Stocks with performance equal to that of the S&P 500 over the last 52 weeks have a relative strength index of 0%. A relative strength index of 10% indicates that the stock outperformed the S&P 500 by 10%. Negative numbers indicate underperformance relative to the index, such that a relative strength index reading of –5% means the stock has underperformed the S&P 500 by 5%.

O'Neil's CAN SLIM Revised 3rd Edition has a relative strength index of 18.1% over the 52 weeks ending November 28, 2014. Both the Graham—Enterprising Investor Revised and ADR screens underperformed the S&P 500 over the last year, with relative strengths of –22.8% and –8.4%, respectively. Ironically, the second-worst-performing AAII stock screen for this year—Foolish Small Cap 8—has a relative strength of 61.2%; its single passing company at the end of November outperformed the S&P 500 by over 61% over the last year.

## Winning Characteristics

When looking at those strategies that have achieved long-term success, several common factors are apparent:

- Low multiples (price-earnings, price-to-book value, etc.), on a relative rather than an absolute basis;
- An emphasis on consistency of growth in earnings, sales or dividends;
- Strong financials;
- Price momentum; and
- Upward earnings revisions.

# The Passing Companies Behind the Top Strategy of 2014

The Rule #1 screen turned in a strong performance in 2014 with a 50.3% gain year-to-date through November 28, 2014. In a year where the typical stock screen gained only 3.1%, this was especially impressive. However, when evaluating the performance of a given approach, it is useful to look beyond the simple gain/loss data and examine the individual stocks that contributed to the overall return.

First off, it is important to note that the Rule #1 screen was not fully invested throughout the entire year. In fact, the screen generated passing companies in only eight of the 12 months and for the eight months where a stock did pass, only three unique companies turned up all year. In a year where value strategies tended to lag growth-oriented approaches, being out of the market 25% of the time may have been a benefit for a screen that, among other things, looks for stocks that are trading for no more than 50% of their "fair value."

The Rule #1 screen starts by isolating companies that are generating at least 10% annual growth or returns over the last five years for:

- Return on invested capital
- Equity
- Earnings per share from continuing operations
- Sales
- Free cash flow

It then requires companies to have free cash flows

**Table 3. Stocks Passing the Rule #1 Screen During 2014**

| Company (Ticker) | Price Gain While in Port (%) | Mos in Port During 2014 | P/E Ratio (X) | Price-to-Book Ratio (X) | Div Yield (%) | P/E to EPS Est Grth (%) | 5-Yr Hist EPS Grth (%) | Market Cap ($ Mil) | 52-Wk Rel Strgth (%) |
|---|---|---|---|---|---|---|---|---|---|
| Questcor Pharmaceuticals (QCOR) | 71.9 | 8 | *Acquired by Mallinckrodt and ceased trading on 8/14/2014.* | | | | | | |
| Lululemon Athletica Inc. (LULU) | 10.1 | 1 | 28.9 | 6.21 | na | 1.98 | 45.8 | 6,908.1 | (40.1) |
| Mercadolibre Inc. (MELI) | (11.8) | 3 | 78.3 | 18.26 | 0.50 | 2.92 | 44.7 | 6,223.1 | 10.3 |

*Performance figures do not include dividends or transaction costs.*
*Source: AAII's Stock Investor Pro/Thomson Reuters. Data as of 11/28/2014.*

*(continued from page 7)*

## Impact of Dividends

The Price Gain and Average Annual Price Gain columns in Table 1 represent the annualized percentage price gain or loss realized by a hypothetical portfolio invested in the stocks passing a given screen over varying periods from January 1, 1998, through November 28, 2014.

Keep in mind, however, that these figures represent price change only, and do not include dividend payments or dividend reinvestment. Therefore, the results of screens that tend to isolate large, dividend-paying stocks—such as the Dogs of the Dow (in the value category)—do not receive a boost from dividend payments or reinvestment.

The 10 stocks passing the Dogs of the Dow screen at the end of November were yielding 3.3%; investors holding shares in these stocks, therefore, would have a higher annual return by approximately this amount for the coming year.

## The Top Performer of 2014

Following a strong 2013 where it gained 47.1%, the Rule #1 screen has gained another 50.3% year-to-date as of November 28, making it the top-performing AAII stock screen of 2014. The screen is adapted from the book "Rule #1" (Crown Business, 2007) by Phil Town, a former Green Beret and river guide turned investor. The Rule #1 approach attempts to identify "wonderful" companies trading at attractive prices. The approach is named after Warren Buffett's rules of investing: Rule #1: Don't lose money; and Rule #2: Don't forget rule #1.

Town begins by finding companies with wide, sustainable moats—barriers to entry for would-be competitors of a company. To this end he looks at the "Big Five" criteria, which should all be equal to or greater than 10% per year for at least 10 years: return on invested capital (ROIC), book value per share growth, earnings per share growth, sales growth, and free cash flow growth. The Rule #1 screen also looks for stable, predictable companies with free cash flows sufficient to pay off long-term debt in three years or less.

After finding his so-called wonderful companies, Town seeks out a sufficient margin of safety. He estimates a company's fair value by calculating a "sticker price" and then only buys those

that are sufficient to pay off their long-term debt in no more than three years. Lastly, the current stock price cannot be more than 50% of the company's "sticker price," an estimate of fair value.

Historically, the strategy has averaged 13 passing stocks per month, whereas the typical AAII stock screen has averaged slightly more than 21 passing companies a month since the start of 1998.

When following a given strategy, spreading your investment around more stocks will lower your volatility, as investing in a small number of companies makes a portfolio more susceptible to individual stock price movements. The 10 AAII stocks screens that average the lowest number of passing companies each month are at least 50% more volatile than the S&P 500 index. Having a good number of passing companies does not guarantee low volatility. The Piotroski: High F-Score screen, which averages 21 passing stocks per month, has a risk index of 2.07, meaning it is 107% more volatile than the S&P 500, placing it in 11th place among all AAII screens in terms of volatility. However, looking at its historical performance, much of that volatility has been to the upside.

Table 3 presents the three stocks that passed the Rule #1 screen in 2014, as well as their performance while they were held in the hypothetical portfolio, the number of months each stock was held this year and select current financial data.

Questcor Pharmaceuticals (QCOR) was the best-performing stock that passed the Rule #1 screen in 2014. It was held in the portfolio for eight months and gained 71.9% in that time. The drug maker derives almost all of its revenues from the multiple sclerosis drug Acthar Gel. On April 7, 2014, specialty pharmaceuticals company Mallinckrodt Plc (MNK) announced an offer to buy Questcor. At that time, its offer represented a 27% premium to the stock price. On August 14, 2014, the deal closed and Questcor ceased trading.

Mercadolibre (MELI), an Argentinian e-commerce firm, was the only of the three Rule #1 stocks to suffer a loss in 2014. Over the three months it was held in the hypothetical portfolio, the stock lost 11.8%.

The other company that passed the Rule #1 screen in 2014 was Lululemon Athletica (LULU). The maker of workout apparel made headlines last year after it had to recall defective yoga pants that were too sheer. The stock only passed the Rule #1 screen for one month but still managed to gain 10.1%.

The 2014 results for the Rule #1 screen are a departure from its average performance since the start of 1998. Its annual average price gain since the beginning of 1998—14.2%—places it 27th among all 62 AAII stock screens. On a risk-adjusted basis, it also ranks 27th with an average annual return of 10.7%.

wonderful companies whose stock price is no more than 50% of the sticker price and have sufficient trading volume. We have translated this approach into a series of screening filters, which we apply every month to identify stocks matching the investment philosophy of Phil Town.

The screen is discussed in greater detail above. As you can see, just three stocks passed the screen this year and none passed during four months of the year. This is far below the screen's monthly average of 13 passing stocks and demonstrates that it is always important to look beyond merely performance to determine what is driving the returns.

## Performance Over Time

AAII has performance history for our stock screens dating back to the start of 1998—almost 16 years now. The top two performing methodologies since inception remain the same from a year ago: Piotroski: High F-Score and Estimate Revisions Up 5% (Est Rev Up 5%). However, they have achieved their success through very distinct methodologies and with very different returns through various time periods.

The Piotroski: High F-Score screen is a pure value screen and ranks at the top among all AAII screening strategies with an average annualized return of 30% since the start of 1998. This screen looks for stocks with a very low price-to-book-value ratio and with positive financial characteristics (a high F-score). It has built its performance by doing extraordinarily well in bull markets. For purposes of calculating returns, the current bull market began on March 1, 2009, and was treated as being ongoing as of November 28, 2014. Over that period, the Piotroski screen has risen a staggering 1,043.2%, by far the best performance of any AAII screen. However, this year it only generated a 7.5% gain through the end of November, compared to last year's meteoric 137.6% gain. Value strategies did not fare very well this year, as indicated by the underperformance of the S&P 500 Value index relative to the S&P 500 Growth index, so the performance of this value screen is not overly surprising.

The Piotroski screen lost 53.6% of its value over the latest bear market, which ran from November 1, 2007, to February 28, 2009. Since the start of 1998, the Piotroski screen's best single-month gain was 43.1%, while its biggest monthly loss was 42.0%.

Alternatively, the Estimate Revisions Up 5% screen has managed to achieve its long-term returns not with extraordinary annual returns, but rather with better protection on the downside. The screen looks for upward revisions in annual earnings estimates; specifically, it identifies companies that have had their annual earnings estimates raised by at least 5% over the last month. This and our other earnings estimate revisions screens add these stocks in the month following the revisions made to earnings estimates by analysts. The Estimate Revisions Up 5% screen, with an annualized return since inception of 27.1%, has a bull market return of "only" 322.4%, which is actually lower than that of the Estimate Revisions Top 30 Up screen. Estimate Revisions Up 5% is also having a lackluster 2014, with a year-to-date gain of 3.8%. The screen has a bear market return of –23.4%.

Interestingly, two of AAII's worst-performing screens since inception are Estimate Revisions Lowest 30 Down and Estimate Revisions Down 5%, giving credence to the belief that earnings estimates play a huge factor in the subsequent short-term performance of stocks. As of the end of November, these two screens have basically been flat since the beginning of 1998.

## Risk-Adjusted Return

Table 1 also presents the risk-adjusted return for each of the screens. This calculation is a bit more technical, but essentially, it adjusts the performance of each screen using their volatility as measured through standard deviations of returns, penalizing screens with higher standard deviations (for a more detailed explanation of the risk-adjusted return calculation, see the box below). Using risk-adjusted returns, we still find the two long-term best-performing screens at the top. However, the Estimate Revisions Up 5% screen is now at the top, with a risk-adjusted return of 18.2% since inception, and the Piotroski: High F-Score screen is second with a risk-adjusted return of 17.8%.

## Bull & Bear Market Gain

There is an old adage that a rising tide lifts all boats. The majority of stocks have some positive correlation with the overall market, so when the market is going up, so do the values of many stocks. The extent of the increases vary, however, as this year's numbers show.

When investing in individual stocks, you would like to outperform the market, otherwise you are better off investing in an index fund. By tracking the performance of our stock screens over the latest bull and bear markets, we are able to see whether a strategy can outperform the market during an uptrend or limit losses during a downtrend.

As mentioned earlier, the Piotroski: High F-Score screen has turned in the best bull market performance, gaining 1,043.2% between March 1, 2009, and November 28, 2014. Three screening strategies bucked the market's overall upward momentum and have turned in negative returns during the current bull market: Muhlenkamp (–60.9%), MAGNET Complex (–32.0%) and Kirkpatrick Value (–19.6%). By way of comparison, the S&P 500 has gained 159.1% during the current bull market.

Over the last bear market, O'Neil's CAN SLIM screen had the smallest loss at –10.1% from November 1, 2007, through February 28, 2009. The screen benefited from being out of the market for much of that time, as its strict price momentum filters have few, if any, candidates during a prolonged market downturn. When no stocks pass a strategy at the beginning of a calendar month, we consider the hypothetical portfolio to be fully invested in cash and thereby out of the market. The biggest

## Calculating Risk-Adjusted Return

The formula for calculating the risk-adjusted return is as follows:

Margin Rate + (Benchmark Std Dev ÷ Portfolio Std Dev) × (Portfolio Return – Margin Rate)

Where:

- Margin Rate = margin rate (the rate at which you borrow funds); we use 6.5% for our calculations
- Benchmark Std Dev = standard deviation of the benchmark, in this case the S&P 500 index
- Portfolio Std Dev = standard deviation of the portfolio of stocks passing a given stock screen
- Portfolio Return = return of the portfolio invested in the stocks passing a given stock screen

This calculation assumes that the portfolio return for a given stock screen is higher than the margin rate. If it isn't, the risk-adjusted return calculation would be as follows:

Margin Rate + (Portfolio Std Dev ÷ Benchmark Std Dev) × (Portfolio Return – Margin Rate)

Following this methodology, we calculate the risk-adjusted returns since inception for all of the AAII stock screens.

loser over the last bear market was the Dogs of the Dow: Low Priced 5, which dropped 82.9%.

## Monthly Variability

The monthly variability columns in Table 1 show the best and worst single-month returns of each of the 62 AAII stock screens. O'Neil's CAN SLIM screen, which seeks out stocks with strong price momentum, has the highest single-month gain at 69.6%. On the other end of the spectrum, the Murphy Technology screen has the biggest one-month decline at 44.9%.

## Risk Index

The risk index compares the variability of returns, as measured by the standard deviation of return, for a given stock screening strategy to that of a benchmark. Standard deviation is a measure of return volatility computed using monthly returns since the beginning of 1998. The risk index divides the standard deviation of a strategy's return by the standard deviation of return for a benchmark, in this case the S&P 500. The risk index provides a relative measure of risk by comparing the variation in return for a screen since the beginning of 1998 to the typical variation in return for the benchmark index. The risk index of the S&P 500, therefore, is 1.00; methodologies with a risk index below 1.00 are below average in risk.

Almost all of AAII's screens have risk indexes above 1.00, which is to be expected. Stock screens, after all, typically pass anywhere from a handful of stocks to around 50, while the S&P 500 is made up of 500 very heavily traded companies. In fact, as of the end of November, only two screens have a risk index lower than 1.00: Graham Defensive Investor—Utility and Dividend—High Relative Yield. These two screens are all made up of "safer" stocks, with one focusing on utility stocks and the other seeking out dividend-paying stocks.

Ranking the 62 stock screens according to risk index, we see that the Graham Defensive Investor—Utility screen has the lowest risk index, 0.94. This means the approach is only 94% as volatile as the S&P 500 since the start of 1998. Furthermore, since its risk index is lower than 1.00, it has less price volatility than our benchmark, the S&P 500. The screen's risk-adjusted return was actually adjusted upward, going from a return of 8.2% since 1998 to a risk-adjusted return of 8.3%.

Benjamin Graham's philosophy divides investors into two groups by the amount of time they are able to devote to researching and managing a stock portfolio as well as by their level of market experience. For the defensive or passive investor, his or her analysis is geared toward avoiding serious mistakes or losses. Graham tries to establish a procedure that provides freedom from great effort and frequent decision-making. Graham feels that the defensive investor should confine his or her holdings to the shares of important companies with a long record of profitable operations and strong financial condition. By "important," he means a company of substantial size with a leading position in the industry, ranking among the first quarter or first third in size within its industry group.

The 2.07 risk index value for the Piotroski: High F-Score screen indicates that, since the beginning of 1998, the monthly variability of returns for the stocks held in this portfolio has been more than twice that of the S&P 500. This places the Piotroski: High F-Score screen as the 11th-riskiest screen among the 62 screens AAII tracks. It also has the highest risk index among all value strategies AAII tracks. Among all AAII stock screens, the median risk index value is 1.56. This indicates that the typical stock screen tracked by AAII has 56% more volatility than the S&P 500.

AAII's MAGNET Simple screen has the highest risk index (2.99) and standard deviation of returns (46.6%). Accordingly, its annualized return of 15.5% since 1998, which is above the median annualized return for all screens of 12.2%, becomes a lackluster risk-adjusted return of 9.5% since 1998 (the median risk-adjusted return for the screen universe is 10.3%).

A MAGNET stock, according to Jordan Kimmel, offers a blend of technical and fundamental characteristics. Kimmel believes the MAGNET process "encompasses the best of the momentum aspects of the market, while demanding the downside protection of a value approach and insisting on top-line revenue growth." The MAGNET acronym stands for the following:

- M—Management must be outstanding; momentum must be improving;
- A—Acceleration of earnings, revenues and margins;
- G—Growth rate must exceed valuation;
- N—New product or management may be the driver;
- E—Emerging industry or product creates opportunity; and
- T—Timing needs to be right (technically poised for large price increase).

## Ulcer Index

The Ulcer Index is a measure of downside volatility; it was named as such because downside volatility causes stress and stomach ulcers. Needless to say, a lower number is better, meaning that there is less volatility on the downside.

Stock screens with high overall volatility, as measured by standard deviation, but relatively low downside volatility, as measured by the Ulcer Index, are especially attractive. These stocks' price movements tend to be to the upside instead of to the downside. The Piotroski: High F-Score screen is a great example, with a risk index of 2.07 and an Ulcer Index of 14.7%, below the median Ulcer Index of all the screens (16.9%).

## Average Holdings & Turnover

One benefit of quantitative stock screening is the ability to winnow down a universe of stocks to a more manageable number. For stock screens to be useful, there should ideally be enough stocks passing to provide various alternatives, but not too many that investors

are overloaded with too many choices.

The rightmost columns of Table 1 present the average number of passing stocks and the turnover percentage for each of our stock screens. For many of the screens, you will notice patterns depending on the market cycle. For example, as we noted previously, the Rule #1 screen has generated, on average, 13 stocks per month, since the start of 1998. However, this year, as stock valuations increased and fewer stocks were trading at a significant discount to their "sticker price," only three stocks total passed the latest screen and none have passed each of the last four months.

The rightmost column in Table 1 shows the average monthly turnover percentage for each of the screens. The Estimate Revisions screens have some of the highest monthly turnovers of any of the screens that AAII tracks. From a conceptual standpoint, this characteristic for these screens makes perfect sense. As we stated before, the Estimate Revisions screens look for companies that have had upward or downward earnings revisions over the past month. Not many companies will continuously pass these screens, since that would suggest that analysts are continuously revising the estimates of a specific company upward or downward month after month. Also, keep in mind that as a general rule, value screens tend to have lower turnover and growth screens tend to have higher turnover.

The screen with the lowest turnover is the Dogs of the Dow screen, with an average monthly turnover of 7.4%, while the Estimate Revisions Up 5% screen has the highest average monthly turnover of 92.6%. The median average monthly turnover for AAII's screens is 36.8%.

## Conclusion

The AAII stock screens are not intended to be buy or recommended lists. Instead, they allow investors to see how different investment strategies perform over varying market conditions. Since market conditions change, it is important to be adequately diversified to weather the ups and downs of the market.

One way to achieve sufficient diversification is by using multiple stock screening methodologies to help you select stocks. However, it is not enough to simply choose those strategies that have the best long-term performance. Instead, it is useful to understand the forces influencing both the overall market and a strategy's performance, and how changing economic conditions can impact both the market and individual stocks. Examining the characteristics of an investment methodology may reveal some practical problems you can face when trying to translate quantitative stock screening in real-world portfolio building.

Something else to keep in mind is

*(continued on page 19)*

## The AAII Stock Screens

AAII has been developing, testing, and refining a wide range of screening strategies over the years. Many of the screens follow the approaches of popular investment professionals, while others are tied to basic principles of investing. These approaches run the full spectrum, from those that are value-based to those that focus primarily on growth, while most fall somewhere in the middle.

Screens following the approach of an investment professional do not represent their actual stock picks. The rules of each screen are defined by our interpretations of their respective investment approaches. The results of the screening strategies, as well as the criteria for each screen, are programmed into the *Stock Investor Pro* program and are also posted in the Stock Screens area of AAII.com.

Each month over 60 separate screens are performed using AAII's *Stock Investor Pro* and the current companies passing each individual screen are reported. *Stock Investor Pro* subscribers can run the screens themselves on a weekly basis, while AAII members can access the screening results by going to the Stock Screens area of AAII.com (www.aaii.com/stock-screens). The results are posted to AAII.com on the 15th of each month (excluding holidays and weekends) using data from the previous month's end. The AAII Stock Screens Update email will you notify you when the strategies have been updated on AAII.com and provide a more in-depth look at a featured screen each month. You can sign up for this complimentary newsletter at www.aaii.com/email/signup.

The performance of the stocks passing each screen is tracked on a monthly basis. The month-to-month closing price is used to calculate the return, with equal investments in each stock at the beginning of each month assumed. The impact of factors such as commissions, bid-ask spreads, cash dividends, time slippage (the time between the initial decision to buy a stock and the actual purchase) and taxes is not considered. This overstates the reported performance, but all approaches are subject to the same conditions and procedures. Higher turnover portfolios typically benefit more from these simplified rules.

Sell rules are the same as the buy rules: The hypothetical portfolios are completely reallocated using each subsequent month's data. Thus, a stock is sold (no longer included in the portfolio) if it ceases to meet the initial criteria, and new stocks are added if they qualify.

Stocks that no longer qualify are dropped even if the strategist behind a particular approach suggests different sell rules versus buy rules. This may shorten the holding period and increase the turnover relative to what the strategist would suggest for an actual portfolio.

Of note, Intel faces new industry challenges today as consumers move from personal computers and laptops to tablets and mobile devices, many of which are powered by Quark chips made by Intel's competitors. The firm's leaders will be tested once again in facing these issues, and investors should keep a close eye on their moves and rationales.

## Invest in Reinvention

While there's no such thing as a perfect crystal ball, smart investors can pay careful attention to a key factor to predict a firm's financial future: its ability to reinvent. Whether carried by Chuck Schwab's deep commitment to customer focus, Howard Schultz's understanding of Starbucks' departure from his original vision, or Andy Grove and his co-founders' foresight in the face of major industrial shifts, the ability of leaders to reinvent is crucial to generating value for their businesses and shareholders.

In contrast, a company's inability to reinvent often means major losses in profits and stock value, as illustrated by Kodak's story. The secondary challenge is timing an investment well: Here, too, clear signs of reinvention can be important guideposts, such as the day Schultz closed all Starbucks stores to retrain baristas. This can be a bit easier to gauge for consumer-focused businesses.

In short, learning to assess management's reinvention skills is paramount to making the right investments in the short and long term. The key is identifying those who can transform setbacks into comebacks and existential crises into unprecedented opportunities. ▲

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*(continued from page 14)*

that once you decide on which methodologies to follow, you cannot just let the quantitative screens choose your stocks.

Screening is a multi-step process. The first step is to apply the quantitative filters to the stock universe to help you arrive at a set of candidates that all share the same base set of characteristics. This does not necessarily mean they are all good investments. It is important to take your list of passing companies and, at a minimum, perform some cursory qualitative analysis to decide whether or not they are right for your stock portfolio. ▲

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