

Wenzel Analytics
Inc

## Screen Count Forecasts Return

November 12, 2012

This is a brief report of a serendipitous finding that the number of stocks selected by a specific screen anticipates returns for the next year. Since almost every screen or set of criteria that one might construct will also correlate with market returns, this has some interesting implications.

The screen is for stocks that have declined significantly and consistently over the past three years but still have cash relative to the price of the stock. This is a volatile but promising screen.

As shown in the first table below, the screen was tested on 107 months for returns one year later. Because exceptionally high and low returns distort the averages, and because such exceptional or outlier returns are statistically unreliable, the returns in the 450,000 or so records were capped at the five and ninety-five percentile levels.

When the screen produced 33 or fewer stocks, the average percent change the next year was a negative $-23.5 \%$. Returns were mixed when the counts were between 34 and 149, averaging $7.9 \%$. For the $29 \%$ of the months when the counts selected were 150 or more, all of the returns for the next twelve months were positive, averaging 63\%.
The current count is 64 , which is about midway in the $40 \%$ of the time that we have mixed returns.

| Total months | 107 |  | Counts | Count | Count \% | \% Change | RUA \% Chg |
| :--- | ---: | :--- | :--- | ---: | ---: | ---: | ---: |
| Average monthly percent change | 14.2 |  | $<34$ | 33 | $31 \%$ | -23.5 | $0.2 \%$ |
| Average monthly market \% change | 0.5 |  | $34-149$ | 43 | $40 \%$ | 7.9 | $-0.3 \%$ |
| Count as of 11/9/12 | 64 |  | $>149$ | 31 | $29 \%$ | 63.0 | $1.9 \%$ |

In the data tables below showing each of the 107 months, the columns on the left are sorted chronologically, and the ones on the right are sorted by the count of records matching the screen criteria. RUA is the symbol for the Russell 3000, a common market benchmark.

Note that the returns from the screen are much more extreme than market returns, which combined with the fact that these are rolling returns for twelve months into the future, probably explains the fact that returns show much more consistent positive or negative trends than do market returns. The effect of a spike in either direction carries for several months.

Of course in the implementation of such a screen, I would not buy all the positions matching the screen criteria, but would evaluate each position on traditional technical criteria plus the use of a fractal dimension indicator. I would also want to diversify by industry, as well as balance such a high-risk portfolio with other portfolio allocations.

Comments are welcome.

## An alternative to mutual funds.

C:\Users $\backslash e e \backslash D e s k t o p \backslash W A \backslash$ Studies $\backslash$ Counts Forecast Returns.docx, 11/12/2012

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Monthly Screen Results Sorted by Date and Count

| Sort Field |  |  |  | Sort Field |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Count | Avg \% chg 52w | RUA |  | Count | Average | 52w | RUA |
| 12/31/02 | 115 | 104.1 | -1.8\% | 9/30/05 | 5 | -28.8 |  | 3.6\% |
| 1/31/03 | 194 | 136.5 | 0.9\% | 10/31/05 | 8 | -5.4 |  | 0.0\% |
| 2/28/03 | 212 | 137.6 | 8.0\% | 2/28/06 | 8 | 4.0 |  | 1.0\% |
| 3/31/03 | 200 | 135.2 | 5.9\% | 8/31/05 | 10 | -9.2 |  | -2.0\% |
| 4/30/03 | 187 | 73.4 | 1.2\% | 11/30/05 | 10 | 5.9 |  | 3.2\% |
| 5/31/03 | 152 | 50.4 | 2.2\% | 1/31/06 | 12 | 3.8 |  | 1.6\% |
| 6/30/03 | 160 | 46.7 | 2.1\% | 12/31/05 | 13 | 14.8 |  | 0.0\% |
| 7/31/03 | 184 | 27.8 | -1.2\% | 4/30/06 | 13 | 9.9 |  | 0.0\% |
| 8/31/03 | 163 | 4.6 | 5.9\% | 3/31/06 | 14 | -6.3 |  | -3.4\% |
| 9/30/03 | 161 | 8.9 | 1.2\% | 7/31/05 | 15 | -6.8 | ¢ | 0.8\% |
| 10/31/03 | 127 | 9.8 | 4.4\% | 6/30/06 | 17 | 0.1 | $\stackrel{7}{0}$ | 2.2\% |
| 11/30/03 | 95 | 36.4 | 2.0\% | 5/31/06 | 20 | -7.8 | $\stackrel{1}{0}$ | -0.2\% |
| 12/31/03 | 81 | 12.6 | 1.2\% | 6/30/05 | 22 | 10.6 | $\geq$ | -1.1\% |
| 1/31/04 | 87 | -3.4 | -1.3\% | 9/30/06 | 22 | -11.2 | \% | 1.9\% |
| 2/28/04 | 84 | -9.1 | -2.2\% | 9/30/07 | 22 | -44.1 | Q | -4.7\% |
| 3/31/04 | 64 | -11.2 | 1.3\% | 10/31/07 | 22 | -48.3 | $\bigcirc$ | -0.8\% |
| 4/30/04 | 98 | -15.7 | 1.8\% | 7/31/07 | 23 | -40.6 | ミ | 3.5\% |
| 5/31/04 | 88 | -6.6 | -3.9\% | 10/31/06 | 24 | -2.3 | ¢ | 1.1\% |
| 6/30/04 | 91 | -4.1 | 0.2\% | 8/31/07 | 24 | -19.5 | $\stackrel{\square}{0}$ | 1.7\% |
| 7/31/04 | 91 | 22.2 | 1.4\% | 5/31/08 | 24 | -29.7 | ${ }^{\circ}$ | -0.9\% |
| 8/31/04 | 79 | 27.3 | 1.5\% | 5/31/07 | 25 | -47.9 | \% | -3.4\% |
| 9/30/04 | 41 | 13.9 | 4.5\% | 8/31/06 | 26 | -7.0 | ¢ | 3.5\% |
| 10/31/04 | 54 | 10.3 | 3.4\% | 1/31/08 | 27 | -54.0 | 入 | -0.8\% |
| 11/30/04 | 43 | 14.1 | -2.8\% | 4/30/07 | 28 | -54.5 | $\bigcirc$ | -2.0\% |
| 12/31/04 | 49 | -0.9 | 2.0\% | 7/31/06 | 29 | 2.6 |  | 2.1\% |
| 1/31/05 | 68 | 24.0 | -1.8\% | 6/30/07 | 29 | -54.3 |  | 1.1\% |
| 2/28/05 | 53 | 28.6 | -2.3\% | 11/30/06 | 30 | -34.6 |  | 1.8\% |
| 3/31/05 | 60 | 48.6 | 3.6\% | 1/31/07 | 30 | -47.8 |  | 0.9\% |
| 4/30/05 | 60 | 56.9 | 0.5\% | 3/31/07 | 30 | -41.0 |  | 3.4\% |
| 5/31/05 | 34 | 26.1 | 4.0\% | 12/31/06 | 31 | -43.2 |  | -1.8\% |
| 6/30/05 | 22 | 10.6 | -1.1\% | 11/30/07 | 31 | -63.3 |  | -6.2\% |
| 7/31/05 | 15 | -6.8 | 0.8\% | 12/31/07 | 32 | -57.0 |  | -3.3\% |
| 8/31/05 | 10 | -9.2 | -2.0\% | 2/29/08 | 33 | -62.6 |  | 4.9\% |
| 9/30/05 | 5 | -28.8 | 3.6\% | 5/31/05 | 34 | 26.1 |  | 4.0\% |
| 10/31/05 | 8 | -5.4 | 0.0\% | 2/28/07 | 35 | -43.2 |  | 3.9\% |
| 11/30/05 | 10 | 5.9 | 3.2\% | 6/30/08 | 35 | 2.4 |  | 1.4\% |
| 12/31/05 | 13 | 14.8 | 0.0\% | 4/30/08 | 40 | -68.1 |  | -8.4\% |
| 1/31/06 | 12 | 3.8 | 1.6\% | 9/30/04 | 41 | 13.9 |  | 4.5\% |
| 2/28/06 | 8 | 4.0 | 1.0\% | 3/31/08 | 41 | -40.2 |  | 1.8\% |
| 3/31/06 | 14 | -6.3 | -3.4\% | 11/30/04 | 43 | 14.1 |  | -2.8\% |
| 4/30/06 | 13 | 9.9 | 0.0\% | 8/31/08 | 45 | 1.8 |  | -17.8\% |
| 5/31/06 | 20 | -7.8 | -0.2\% | 10/31/11 | 47 | 60.2 | $\frac{1}{5}$ | 0.7\% |
| 6/30/06 | 17 | 0.1 | 2.2\% | 7/31/08 | 48 | 4.8 | 0 | -9.7\% |
| 7/31/06 | 29 | 2.6 | 2.1\% | 12/31/04 | 49 | -0.9 | $\Upsilon$ | 2.0\% |
| 8/31/06 | 26 | -7.0 | 3.5\% | 2/28/05 | 53 | 28.6 | 8 | -2.3\% |
| 9/30/06 | 22 | -11.2 | 1.9\% | 10/31/04 | 54 | 10.3 | $\stackrel{\text { - }}{ }$ | 3.4\% |
| 10/31/06 | 24 | -2.3 | 1.1\% | 3/31/11 | 57 | -12.1 |  | -1.3\% |
| 11/30/06 | 30 | -34.6 | 1.8\% | 2/28/11 | 58 | -17.1 |  | 2.9\% |
| 12/31/06 | 31 | -43.2 | -1.8\% | 3/31/05 | 60 | 48.6 |  | 3.6\% |
| 1/31/07 | 30 | -47.8 | 0.9\% | 4/30/05 | 60 | 56.9 |  | 0.5\% |
| 2/28/07 | 35 | -43.2 | 3.9\% | 3/31/04 | 64 | -11.2 |  | 1.3\% |
| 3/31/07 | 30 | -41.0 | 3.4\% | 4/30/11 | 65 | -20.2 |  | -2.0\% |
| 4/30/07 | 28 | -54.5 | -2.0\% | 6/30/11 | 66 | -7.7 |  | -6.2\% |
| 5/31/07 | 25 | -47.9 | -3.4\% | 7/29/11 | 66 | 3.9 |  | -7.9\% |

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| Sort Field |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Count | Avg \% chg 52w | RUA |
| 6/30/07 | 29 | -54.3 | 1.1\% |
| 7/31/07 | 23 | -40.6 | 3.5\% |
| 8/31/07 | 24 | -19.5 | 1.7\% |
| 9/30/07 | 22 | -44.1 | -4.7\% |
| 10/31/07 | 22 | -48.3 | -0.8\% |
| 11/30/07 | 31 | -63.3 | -6.2\% |
| 12/31/07 | 32 | -57.0 | -3.3\% |
| 1/31/08 | 27 | -54.0 | -0.8\% |
| 2/29/08 | 33 | -62.6 | 4.9\% |
| 3/31/08 | 41 | -40.2 | 1.8\% |
| 4/30/08 | 40 | -68.1 | -8.4\% |
| 5/31/08 | 24 | -29.7 | -0.9\% |
| 6/30/08 | 35 | 2.4 | 1.4\% |
| 7/31/08 | 48 | 4.8 | -9.7\% |
| 8/31/08 | 45 | 1.8 | -17.8\% |
| 9/30/08 | 67 | 23.0 | -8.2\% |
| 10/31/08 | 109 | 75.4 | 1.6\% |
| 11/30/08 | 161 | 119.9 | -8.5\% |
| 12/31/08 | 167 | 125.2 | -10.8\% |
| 1/31/09 | 189 | 130.1 | 8.5\% |
| 2/28/09 | 239 | 195.0 | 10.4\% |
| 3/31/09 | 264 | 200.0 | 5.1\% |
| 4/30/09 | 259 | 127.5 | 0.2\% |
| 5/31/09 | 242 | 80.5 | 7.6\% |
| 6/30/09 | 232 | 51.6 | 3.3\% |
| 7/31/09 | 185 | 13.4 | 4.0\% |
| 8/31/09 | 182 | 13.3 | -2.7\% |
| 9/30/09 | 162 | 13.2 | 5.4\% |
| 10/30/09 | 212 | 24.6 | 2.7\% |
| 11/30/09 | 207 | 29.0 | -3.7\% |
| 12/31/09 | 183 | 35.3 | 3.2\% |
| 1/31/10 | 207 | 32.7 | 6.1\% |
| 2/28/10 | 192 | 33.1 | 2.1\% |
| 3/31/10 | 183 | 19.8 | -8.1\% |
| 4/30/10 | 162 | 4.5 | -5.9\% |
| 5/31/10 | 213 | 23.2 | 6.8\% |
| 6/30/10 | 254 | 33.9 | -4.9\% |
| 7/31/10 | 159 | 11.2 | 9.3\% |
| 8/31/10 | 219 | 13.6 | 3.8\% |
| 9/30/10 | 149 | -17.2 | 0.4\% |
| 10/31/10 | 149 | -8.1 | 6.6\% |
| 11/30/10 | 125 | -10.8 | 2.1\% |
| 12/31/10 | 87 | -18.6 | 3.4\% |
| 1/31/11 | 78 | -12.8 | 0.3\% |
| 2/28/11 | 58 | -17.1 | 2.9\% |
| 3/31/11 | 57 | -12.1 | -1.3\% |
| 4/30/11 | 65 | -20.2 | -2.0\% |
| 5/31/11 | 68 | -19.1 | -2.4\% |
| 6/30/11 | 66 | -7.7 | -6.2\% |
| 7/29/11 | 66 | 3.9 | -7.9\% |
| 8/31/11 | 94 | 23.2 | 11.4\% |
| 9/30/11 | 95 | 54.1 | -0.5\% |
| 10/31/11 | 47 | 60.2 | 0.7\% |


| 9/30/08 | Sort Field |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Count | Average_chg_52w |  | RUA |
|  | 67 | 23.0 |  | -8.2\% |
| 1/31/05 | 68 | 24.0 |  | -1.8\% |
| 5/31/11 | 68 | -19.1 |  | -2.4\% |
| 1/31/11 | 78 | -12.8 |  | 0.3\% |
| 8/31/04 | 79 | 27.3 |  | 1.5\% |
| 12/31/03 | 81 | 12.6 |  | 1.2\% |
| 2/28/04 | 84 | -9.1 |  | -2.2\% |
| 1/31/04 | 87 | -3.4 |  | -1.3\% |
| 12/31/10 | 87 | -18.6 |  | 3.4\% |
| 5/31/04 | 88 | -6.6 |  | -3.9\% |
| 6/30/04 | 91 | -4.1 |  | 0.2\% |
| 7/31/04 | 91 | 22.2 |  | 1.4\% |
| 8/31/11 | 94 | 23.2 |  | 11.4\% |
| 11/30/03 | 95 | 36.4 |  | 2.0\% |
| 9/30/11 | 95 | 54.1 |  | -0.5\% |
| 4/30/04 | 98 | -15.7 |  | 1.8\% |
| 10/31/08 | 109 | 75.4 |  | 1.6\% |
| 12/31/02 | 115 | 104.1 |  | -1.8\% |
| 11/30/10 | 125 | -10.8 |  | 2.1\% |
| 10/31/03 | 127 | 9.8 |  | 4.4\% |
| 9/30/10 | 149 | -17.2 |  | 0.4\% |
| 10/31/10 | 149 | -8.1 |  | 6.6\% |
| 5/31/03 | 152 | 50.4 |  | 2.2\% |
| 7/31/10 | 159 | 11.2 |  | 9.3\% |
| 6/30/03 | 160 | 46.7 |  | 2.1\% |
| 9/30/03 | 161 | 8.9 |  | 1.2\% |
| 11/30/08 | 161 | 119.9 |  | -8.5\% |
| 9/30/09 | 162 | 13.2 |  | 5.4\% |
| 4/30/10 | 162 | 4.5 |  | -5.9\% |
| 8/31/03 | 163 | 4.6 |  | 5.9\% |
| 12/31/08 | 167 | 125.2 |  | -10.8\% |
| 8/31/09 | 182 | 13.3 |  | -2.7\% |
| 12/31/09 | 183 | 35.3 | ᄃ | 3.2\% |
| 3/31/10 | 183 | 19.8 | $\stackrel{\square}{0}$ | -8.1\% |
| 7/31/03 | 184 | 27.8 | $\pm$ | -1.2\% |
| 7/31/09 | 185 | 13.4 | \% | 4.0\% |
| 4/30/03 | 187 | 73.4 | $\bigcirc$ | 1.2\% |
| 1/31/09 | 189 | 130.1 | $\bigcirc$ | 8.5\% |
| 2/28/10 | 192 | 33.1 | ¢ | 2.1\% |
| 1/31/03 | 194 | 136.5 | \% | 0.9\% |
| 3/31/03 | 200 | 135.2 | \% | 5.9\% |
| 11/30/09 | 207 | 29.0 | 듣 | -3.7\% |
| 1/31/10 | 207 | 32.7 | ¢ | 6.1\% |
| 2/28/03 | 212 | 137.6 |  | 8.0\% |
| 10/30/09 | 212 | 24.6 |  | 2.7\% |
| 5/31/10 | 213 | 23.2 |  | 6.8\% |
| 8/31/10 | 219 | 13.6 |  | 3.8\% |
| 6/30/09 | 232 | 51.6 |  | 3.3\% |
| 2/28/09 | 239 | 195.0 |  | 10.4\% |
| 5/31/09 | 242 | 80.5 |  | 7.6\% |
| 6/30/10 | 254 | 33.9 |  | -4.9\% |
| 4/30/09 | 259 | 127.5 |  | 0.2\% |
| 3/31/09 | 264 | 200.0 |  | 5.1\% |

The correlation between the screen and the Russell 3000 for results twelve months later was .218 . Visually the relationship is shown in the chart below drawn with the screen represented by the blue line drawn five times as extreme as shown on the scale to the left, as the Russell 3000 shown on the scale to the right.


If we project returns one month out instead of twelve months out, the correlation to the RUA is .200. The cumulative returns are shown in the chart below.


While the value after ten years is almost double for the screen as for the market, the screen shows dramatically the importance of an exit strategy, such as provided by using counts as a signal to exit. In actual implementation, the discretion in buying and selling individual positions is probably of more import than signals to enter or exit the entire screen.

