Investment and Portfolio Strategy

Factor Analysis:
What Drives Performance?

Financial factor models were developed in an attempt to answer the question: "What really drives performance?" Based on the Arbitrage Pricing Theory, factor models are designed to capture the sensitivity of asset returns as a function of one or more factors. Commonly used factors include fundamental or quantitative factors of the underlying asset, quantitative factors of the financial markets, or macro-economic factors. For example, the first financial multifactor model, developed by Eugene Fama and Kenneth French,[1] used

- excess return over a broad market portfolio;
- excess return of a portfolio with high book-to-market stocks over a portfolio with low book-to-market stocks; and
- excess return of a portfolio with small market capitalization stocks over one with large market capitalization stocks.

Active portfolio managers often rely on such factor models in making investing decisions. In addition, smart beta strategies can use such factors as the foundation to build systematic investment strategies. For example, our recent smart beta strategy, PNC Systematic Tactical Asset Rotation (STAR), is constructed based on proprietary trend and momentum factors.[2] In our study, we tested different groups of factors and found 58 of them helpful in explaining asset returns. We have long been monitoring these factors and produced our own factor analysis for three quarters. This paper provides our thoughts and results and serves as a guide to our future published results. We plan to publish our factor analysis on a monthly basis. Please see Appendix B on page 9 for a sample report.

General Information about Factor Models

What Is a Factor?

A factor used in financial factor models is a quantifiable signal that has shown a certain level of correlation with the returns of an asset. Good factors typically show consistent relationships with the asset and have a fundamental intuition for doing so. For example, financial ratios such as price to book and return on equity are commonly used factors. They are tightly linked to companies' financial well-being and thus exhibit some levels of correlation with companies' stock returns.

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[1] Eugene F. Fama and Kenneth R. French, "The Cross-Section of Expected Stock Returns," *The Journal of Finance* XLVII, no. 2 (June 1992).

[2] Please see the September 2013 white paper, *PNC STAR: PNC Systematic Tactical Asset Rotation,* for more information.

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Factor Decomposition Analysis versus Fundamental Investing

All in all, factor analysis is not fundamentally different from traditional fundamental investing. The majority of the information used in factor-based models is also often used by fundamental investors, such as financial ratios as mentioned above. But factor analysis provides managers with different ways of utilizing the same information. With it, managers can pull various quantifiable signals onto similar scoring scales, adjust their values for risk, and then use the factor scores in systematical investing strategies.

PNC Factor Database

Objective

The purpose of our factor analysis is to trace the connection between fund and manager performance and their underlying stocks' periodical factor characteristics. We want to decompose the factors behind stocks' performance, distinguishing the ones that helped stocks to outperform from these that hurt stocks' performance during a certain period. For instance, in the fourth quarter of 2013, we found stocks that exhibit high value characteristics tend to outperform. Those with low price-to-sales ratios, low price-to-earnings ratios, and high earnings before interest, taxes, depreciation, and amortization (EBITDA)/enterprise value ratios are found to be top performers.

Analysis Process

Our analysis is performed on a monthly basis. At the end of each month, we rank the stocks based on their factor scores and then put the top 20% into a portfolio, the second best 20% into another, and so forth. We repeat the same ranking and grouping for every factor within each universe we monitor. Then we calculate the return spreads between the best quintile portfolio and the least favorable quintile portfolio for each factor. The greater the spread value, the more likely that this particular factor was able to distinguish outperforming stocks from underperforming stocks in this exact period. A negative value means the bottom quintile stocks are more favorable in the period. Chart 1 shows top bottom quintile spreads of two factors, sales to growth and low price to diluted earnings, for the period from mid-2010 to the end of 2013. We can see that the spreads change over time for both factors. In fact, in our study, no factor has been consistently exhibiting similar levels of spreads, and the changes of directions are common among the factors.
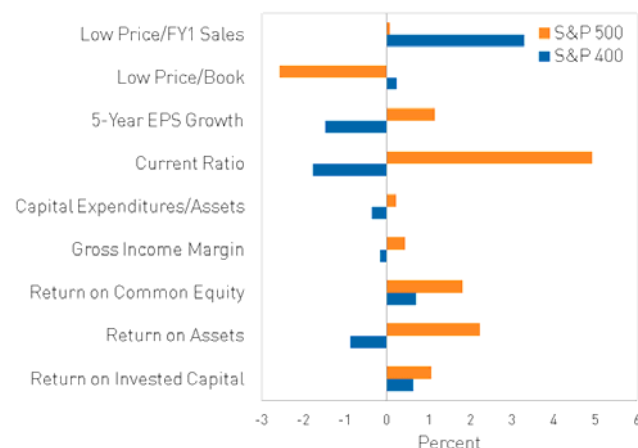
Universes Tested

We are monitoring all of our factors within seven representative universes: S&P 500®, Russell 1000®, S&P Mid Cap 400®, S&P Small Cap 600®, Russell 2000®, MSCI EAFE, and MSCI EM. We found that the factors do

Chart 1
S&P 500 Factor Quintile Spreads

Source: FactSet Research Systems, Inc.; PNC

Chart 2
Factor Spreads Across Indexes, Third-Quarter 2013

Source: FactSet Research Systems, Inc.; PNC

not behave exactly the same across these universes. Chart 2 (page 2) shows spread returns for nine factors for the third quarter of 2013 within the S&P 500 and the S&P 400. A couple of the factors, such as the current ratio factor, have shown opposite spread returns across the two universes.

Categories of Factors

We classify the factors into the following categories:

- Valuation: valuation ratios that are commonly used to measure a company's financial health, such as price to book and price to sales;

- Growth: earnings growth or sales growth of a company;

- Quality: financial leverage-related factors;

- Efficiency: capital expenditure and earnings efficiency;

- Price momentum and reversion: price returns and mean reversion factors evaluated at different lengths of intervals;

- Risk/Size: risk measurements such as downside risk and market capitalization;

- Payout: dividend payout measurements;

- Profitability: factors that focus on the return margins, such as gross income margin, return on asset, or return on equity.

Information Coefficient

In our study, we found factors show varying degrees of correlations with stock returns across time. So our goal is not to pick the most consistent factor indicators but rather to study the factors that do show strong correlations with returns in certain periods.

Ranked Information Coefficient (IC) is used in quantitative factor analysis to evaluate the effectiveness of factors. It is the correlation between factor ranking scores and the subsequent period's returns. An IC value equal to 1 indicates perfect correlation, and an IC value above 0.03 is often regarded as a sign of a good factor. As an example, Chart 3 shows ranked IC time series of three factors, price to sales, price to diluted earnings, and dividend yield. The seven-year averages of these ICs are shown in dotted lines.

Chart 3
Factor ICs, S&P 500
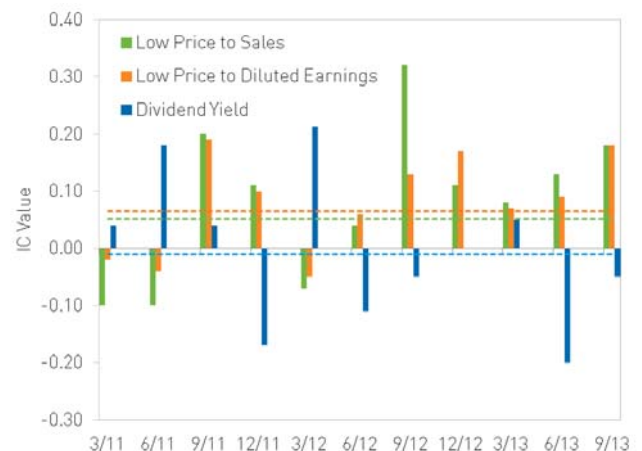
Source: FactSet Research Systems, Inc.; PNC

Results and Discussion

We started monitoring the factors in the second quarter of 2013 and have obtained three quarters of data at the time of this writing. Charts 4, 5, and 6 (page 4) together give an example of how we use the factor database. We rank the stocks with lower value factor scores as more favorable, so for example, the top quintile stocks for the price-to-sales factor have the lowest price-to-sales ratios. As shown in Chart 4, we see that the group of value factor spreads followed a V trend in the past three quarters; stocks with more favorable value scores tended to outperform their peers in the second and fourth quarters but were likely to underperform in the third quarter. In addition, we can see that the factor spreads were all positive in the second
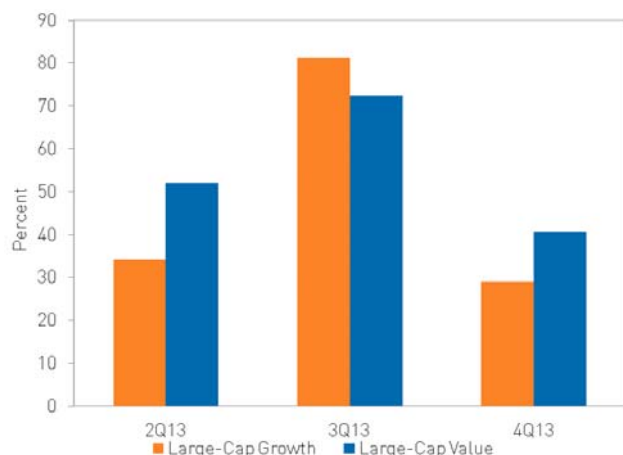
Chart 4
Value Factor Quintile Spreads, S&P 500

Source: FactSet Research Systems, Inc.; PNC

Chart 5
Growth Factor Quintile Spreads, S&P 500

Source: FactSet Research Systems, Inc.; PNC

Chart 6
Percentage of Active Managers Outperforming Benchmark

Source: Morningstar, PNC

and fourth quarters but were not really so in the third quarter. Together, Charts 4, 5, and 6 tell us that value factors were more effective in distinguishing outperforming stocks during the second and fourth quarters of 2013. On the contrary, the growth factors shown in Chart 5 followed an upside-down V trend, at least for the majority of the factors. So the growth factors seem to be more at effect in the third quarter. Comparing the two charts, we see that on an absolute basis, the strengths of the value factors spreads were more significant than those of the growth factors.

We also tested the percentages of growth/value fund managers outperforming their style benchmarks during the past three quarters. In Chart 6, we see that more value managers outperformed their benchmark in the second and fourth quarters of 2013, but growth managers exhibited a stronger performance record in third-quarter 2013. This is in line with our factor group analysis.

In conclusion, we believe that by studying financial quantitative factors, investors can gain a better understanding of why certain types of funds were able to outperform in a given period. We have been tracking eight groups of such factors and have gained valuable insights from them. Appendix A (page 6) contains the definition of the various factors. Although the factors do not show consistent correlations with the stocks in our universes, we do find great value in studying the immediate factor readings. We will continue monitoring the factors and plan to provide our results on a monthly basis. Please see Appendix B (page 9) for an example of factor spreads. On a quarterly basis we also produce an in-depth analysis of active management results focusing on our model portfolios and strategies.

For more information on factors analysis, please see:

José Menchero and Vijay Poduri, "Custom Factor Attribution," *Financial Analysts Journal* 64 (2008).

Louis K.C. Chan, Jason Karceski, and Josef Lakonishok, "The Risk and Return from Factors," *Journal of Financial and Quantitative Analysis* 33, no. 2 (1998).

Kewei Hou, G. Andrew Karolyi, and Bong-Chan Kho, "What Factors Drive Global Stock Returns?" (working paper series, Fisher College of Business, 2011).

Darrin Erickson, "Interpreting Performance Attribution." CFA Institute (May 2011).

Appendix A: Factor Definitions

Valuation Factor	Description
Low Price/Sales	Closing price divided by sales per share as of the end of the fiscal period
Low Price/FY1 Sales	Closing price divided by forward 1-year forecast of sales per share
Low Price/FY2 Sales	Closing price divided by forward 2-year forecast of sales per share
Low Price/Diluted Earnings	Closing price divided by diluted trailing four quarters earnings per share (EPS) of fiscal period
Low Price/Earnings	Closing price divided by trailing four quarters EPS of fiscal period
Low Price/FY1 EPS	Closing price divided by forward 1-year forecast EPS of fiscal period
Low Price/FY2 EPS	Closing price divided by forward 2-year forecast EPS of fiscal period
Low Price/Free Cash Flow	Closing price divided by trailing four quarters free cash flow
Low Price/Operating Cash Flow	Closing price divided by trailing four quarters operating cash flow
Low Price/Book	Closing price divided by book value of fiscal period
Cash Flow/Total Assets	Trailing four quarters operating cash flow divided by total assets
Low EV/Free Cash Flow	Enterprise value (EV) divided by trailing four quarters free cash flow
Dividend Yield	Dividend per share divided by closing price of fiscal period
Low EV/EBITDA	EV divided by earnings before interest, taxes, depreciation, and amortization (EBITDA)
EBITDA Yield LTM	Trailing four quarters EBITDA divided by closing price of fiscal period

Growth Factor	Description
3MSales Growth	3-month growth of trailing four quarters net sales
1Y Sales Growth	1-year growth of trailing four quarters net sales as of fiscal period
3Y Sales Growth	3-year growth of trailing four quarters net sales as of fiscal period
1Y EPS Growth	Year-to-year growth rate of trailing four quarters EPS
5Y EPS Growth	5-year growth rate of trailing four quarters EPS
Earnings Growth FY1/FY2	Forward 1-year earnings estimate divided by forward 2-year estimate

Quality Factor	Description
Asset Turnover	Net sales divided by the two fiscal period average of total assets
3M Asset Growth	3-month growth rate of total assets
Current Ratio	Total current assets divided by total current liabilities
Asset/Equity	Total assets divided by common equity
Interest Coverage	Earnings before interest and taxes (EBIT) divided by the sum of interest expense and interest capitalized
Low Total Debt/Total Assets	Total debt divided by total assets
Low Total Debt/Common Equity	Total debt divided by common equity
Low 3M Net Debt Growth	3-month growth rate of net debt, which equals to total debt minus cash
Low Working Capital/Assets	Trailing four quarters working capital (current assets - current liabilities) divided by last quarter's assets
Low Working Capital/Sales	Trailing four quarters working capital (current assets - current liabilities) divided by trailing four quarters sales

Efficiency Factor   **Description**
Capex/Assets   Capital expenditures divided by last quarter's assets
Capex/Cash Flow   Capital expenditures divided by trailing four quarters
                                         cash flow
Capex/Sales   Capital expenditures divided by trailing four quarters
                                         total sales
EBIT/Assets   EBIT divided by total assets
Opting Cash Flow/Assets   Operating cash flow divided by total assets
Retained Earnings/Assets   Retained earnings divided by total assets

Price Momentum Factor   **Description**
1M Price Momentum   1-month price rate of change
3M Price Momentum   3-month price rate of change
6M Price Momentum   6-month price rate of change
12M Price Momentum   12-month price rate of change
1M Mean Reversion   1-month returns minus 12-month average of monthly returns,
                                         divided by standard deviation of 12-month monthly returns
3M Mean Reversion   3-month returns minus 3-year average of 3-month returns, divided
                                         by standard deviation of 3-year 3-month returns
12M Mean Reversion   Annual returns minus 6-year average of annual returns, divided by
                                         standard deviation of 6-year of annual returns

Risk/Size Factor   **Description**
Market Value   Fiscal period-end market value of the firm
Index Beta   Beta coefficient of 60-month moving regression of price returns
                                         against index returns
Downside Risk   Standard deviation of 12-month monthly losses. Monthly losses are
                                         zero if the monthly return is positive.
VIX Beta   Beta coefficient of 60-month moving regression of price returns
                                         against VIX returns

Payout Factor   **Description**
Dividend Growth   Trailing four quarters growth rate of dividends per share as of last
                                         quarter
Dividend Payout Ratio   Trailing four quarters dividend per share divided by EPS
Dividend Payout/Assets   Trailing four quarters dividend per share divided by last quarter's
                                         total assets

Factor Analysis

Profitability Factor	Description
Gross Income Margin	Trailing four quarters gross income margin (gross profit divided by net sales)
Net Income Margin	Trailing four quarters net income margin (net income divided by net sales)
Return on Common Equity	Trailing four quarters income before extraordinary items available for common EPS divided by the two fiscal period average of common equity
Return on Total Equity	Trailing four quarters net income divided by the two fiscal period average of total shareholders' equity
Return on Total Assets	Trailing four quarters net income divided by the two fiscal period average of total assets
Return on Total Capital	Trailing four quarters net income divided by the two fiscal period average of total capital including short-term debt
Return on Invest Capital	Trailing four quarters net income divided by the two fiscal period average of total invested capital

Appendix B: Factor Spreads as of December 2013

Factor		S&P 500		S&P 400		S&P 600	
		3-Month	**1-Month**	**3-Month**	**1-Month**	**3-Month**	**1-Month**
1	Low Price/Sales	5.09	-0.83	3.17	0.87	6.07	3.40
2	Low Price/FY1 Sales	1.57	-0.76	0.30	0.00	4.25	3.65
3	Low Price/FY2 Sales	1.82	-0.40	0.28	-0.20	5.11	3.34
4	Low Price/Diluted Earnings	3.14	-1.58	1.03	0.35	2.70	-0.38
5	Low Price/Earnings	1.24	-1.57	1.44	0.47	2.70	-0.41
6	Low Price/FY1 EPS	3.09	0.05	4.75	-1.15	5.34	1.16
7	Low Price/FY2 EPS	2.27	-0.12	3.58	0.28	0.63	0.53
8	Low Price/Free Cash Flow	6.37	0.86	4.21	0.41	2.55	-0.04
9	Low Price/Operating Cash Flow	-0.80	-1.06	0.06	-0.30	2.00	0.46
10	Low Price/Book Value	0.61	-0.88	-0.81	-1.15	4.26	1.65
11	Cash Flow/Total Assets	-2.51	-0.69	-0.21	0.21	-2.58	-1.12
12	Low EV/Free Cash Flow	-1.87	-0.76	-2.23	-1.38	-3.95	-1.70
13	Dividend Yield	-5.08	-2.04	-4.85	-1.68	-4.91	-2.63
14	Low EV/EBITDA	-1.56	-2.78	1.98	-1.50	1.28	0.79
15	EBITDA Yield (LTM)	-1.61	-1.21	1.10	0.51	1.12	2.27
16	3M Sales Growth	1.45	-0.20	0.61	1.13	1.17	0.92
17	1Y Sales Growth	0.37	-0.06	-1.70	0.96	-2.78	0.27
18	3Y Sales Growth	1.26	0.81	0.70	2.36	-2.99	0.14
19	1Y EPS Growth	0.25	-0.02	-1.65	1.03	1.11	-0.43
20	5Y EPS Growth	1.20	-0.57	-2.96	-0.45	-3.28	-1.68
21	Earnings Growth FY1/ FY2	-0.66	-0.78	1.13	-0.61	1.48	-0.46
22	Asset Turnover	1.31	-0.06	0.06	0.38	1.84	1.80
23	3M Asset Growth	-0.92	0.42	3.50	1.31	-2.34	-0.31
24	Current Ratio	3.61	1.24	0.34	1.25	0.12	-0.03
25	Assets/Equity	1.15	-0.33	3.96	-0.58	-1.88	-1.33
26	Interest Coverage	1.14	-0.47	-3.67	-1.28	-2.10	-2.21
27	Low Total Debt/Total Assets	3.66	0.61	0.44	0.41	1.02	-1.58
28	Low Total Debt/Common Equity	1.29	1.18	-3.27	0.77	2.01	-0.78
29	Low 3M Net Debt Growth	0.75	0.67	1.79	-0.24	0.44	-1.12
30	Low Working Capital/Assets	-3.17	-1.64	-2.41	-1.91	-1.30	-0.36
31	Low Working Capital/Sales	-4.54	-1.69	-0.62	-1.68	0.06	0.25
32	Capex/Assets	-6.65	-1.48	-5.85	-1.27	-4.37	-0.76
33	Capex/ Cash Flow	-4.36	-2.39	-3.71	-1.21	-4.78	-2.01
34	Capex/ Sales	-6.83	-1.54	-5.71	-2.12	-5.82	-1.87
35	EBIT/ Assets	-0.77	-1.01	0.39	0.45	-4.52	-2.59
36	Operating Cash Flow/Assets	-1.80	-0.16	-2.27	0.18	-2.14	-0.39
37	Retained Earnings/Assets	0.62	-0.22	0.21	0.25	-1.06	0.15
38	1M Price Momentum	0.44	0.36	-1.40	1.11	-0.48	-0.40
39	3M Price Momentum	0.68	0.59	1.21	0.82	0.06	-1.04
40	6M Price Momentum	2.14	0.00	3.11	1.80	-1.00	-0.35
41	12M Price Momentum	5.37	0.28	3.25	2.09	-0.82	-0.41
42	1M Mean Reversion	-1.31	0.57	-2.99	0.78	1.07	-0.22
43	3M Mean Reversion	1.74	1.33	1.29	1.01	3.11	1.43
44	12M Mean Reversion	7.35	2.78	1.94	1.06	2.99	0.67
45	Market Value	-0.84	-0.75	0.56	1.37	-5.56	-0.62
46	Index Beta	5.42	2.86	1.12	3.06	0.90	4.40
47	Downside Risk	-0.28	-0.49	-0.60	-1.03	-1.13	-0.16
48	VIX Beta	-5.77	-3.04	-0.70	-2.26	-1.61	-4.35

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Factor Analysis

Factor	S&P 500		S&P 400		S&P 600	
	3-Month	1-Month	3-Month	1-Month	3-Month	1-Month
49 Dividend Growth	5.29	2.24	1.27	0.63	1.05	-0.18
50 Dividend Payout Ratio	-4.74	-1.32	-5.82	-2.05	-5.37	-2.79
51 Dividend Payout/Assets	-3.40	-0.76	-3.22	-0.74	-4.55	-2.23
52 Gross Income Margin	-0.30	0.47	-0.59	-1.03	-1.80	-3.13
53 Net Income Margin	-1.65	-0.03	-3.21	-0.74	-1.20	-1.59
54 Return on Common Equity	-0.37	-0.57	0.71	0.98	-0.41	-1.34
55 Return on Total Equity	-0.37	-0.57	0.59	0.97	-0.49	-1.34
56 Return on Total Assets	-0.22	-0.23	-1.02	1.39	-2.64	-1.47
57 Return on Total Capital	1.08	-0.21	1.37	1.00	-1.81	-1.81
58 Return on Invest Capital	0.90	-0.30	1.68	1.00	-1.91	-1.81

Factor	Russell 1000		Russell 2000		MSCI EAFE		MSCI EM	
	3-Month	1-Month	3-Month	1-Month	3-Month	1-Month	3-Month	1-Month
1 Low Price/Sales	1.68	-0.56	-0.98	1.20	2.41	-0.10	2.39	0.51
2 Low Price/FY1 Sales	0.60	0.40	-1.32	1.94	0.63	-0.38	0.01	-2.17
3 Low Price/FY2 Sales	1.48	0.58	-0.44	2.32	0.38	-0.38	0.21	-2.40
4 Low Price/Diluted Earnings	0.77	-1.16	3.00	0.67	-0.09	0.12	-1.39	-1.64
5 Low Price/Earnings	0.90	-1.07	2.93	0.66	-0.54	0.11	-1.99	-1.78
6 Low Price/FY1 EPS	4.31	-0.59	6.26	2.14	1.05	0.31	-0.28	-2.05
7 Low Price/FY2 EPS	2.98	-0.41	4.41	3.32	1.61	-0.14	-1.65	-2.49
8 Low Price/Free Cash Flow	3.34	-0.48	1.99	-0.39	4.04	0.73	-5.02	-2.28
9 Low Price/Opt Cash Flow	-0.32	-1.38	5.94	1.33	4.37	-0.47	-0.22	1.25
10 Low Price/Book Value	-0.73	-0.95	-2.95	-0.17	-1.00	-2.06	2.34	-0.40
11 Cash Flow/Total Assets	-1.01	-0.01	-5.62	-3.57	-0.34	0.35	0.07	1.39
12 Low EV/Free Cash Flow	-2.07	-1.27	0.50	-0.18	0.45	-0.31	-0.39	0.19
13 Dividend Yield	-5.05	-1.77	-1.98	-1.44	0.86	0.85	-5.55	-2.76
14 Low EV/EBITDA	-0.09	-2.67	5.97	2.48	3.32	-0.13	-3.66	-0.88
15 EBITDA Yield (LTM)	-2.69	-0.35	-5.48	0.09	-0.01	-0.16	-1.94	-1.24
16 3M Sales Growth	2.90	0.89	1.83	0.51	-1.54	-0.46	2.06	-0.57
17 1Y Sales Growth	0.90	0.77	-0.52	-0.38	-0.87	-0.36	2.54	0.50
18 3Y Sales Growth	1.67	1.44	-1.50	0.90	-2.80	-0.71	1.00	-1.42
19 1Y EPS Growth	-1.24	0.22	0.80	1.87	-0.72	0.09	0.55	-0.08
20 5Y EPS Growth	-1.90	-0.65	0.94	-0.19	-1.16	1.46	1.41	-0.44
21 Earnings Growth FY1/ FY2	-0.48	-1.63	1.25	0.43	-1.41	1.01	-3.80	-1.09
22 Asset Turnover	0.52	0.20	-2.18	1.15	1.43	1.33	0.76	1.04
23 3M Asset Growth	0.72	0.85	1.09	0.78	-2.99	-0.96	0.98	-0.79
24 Current Ratio	3.83	0.70	3.86	0.59	0.84	-0.27	1.83	0.78
25 Assets/Equity	1.37	-0.03	-2.87	-2.82	2.60	0.98	-0.46	-0.98
26 Interest Coverage	-2.32	-1.41	-5.95	-3.27	-0.60	-0.72	2.15	0.10
27 Low Total Debt/Total Assets	1.89	-0.10	0.94	-1.58	2.43	0.33	2.14	-0.15
28 Low Total Debt/Common Eqty	0.67	0.44	3.40	1.21	-0.21	-0.18	1.94	0.81
29 Low 3M Net Debt Growth	1.71	0.58	-1.15	-2.50	2.41	0.59	1.98	1.26
30 Low Working Capital/Assets	-3.72	-1.07	-6.16	-1.39	-1.48	0.15	-3.22	-1.27
31 Low Working Capital/Sales	-5.64	-1.77	-5.32	-0.85	-0.99	0.90	-2.96	-1.59
32 Capex/Assets	-5.88	-1.09	-4.69	0.19	-2.26	-0.12	-1.76	0.14
33 Capex/Cash Flow	-5.39	-1.51	-2.39	-3.12	1.32	-0.35	0.12	-0.02
34 Capex/Sales	-5.55	-0.80	-2.95	-0.52	-3.46	-1.03	-2.80	-0.78
35 EBIT/Assets	-2.68	-1.01	-6.24	-3.05	1.74	1.71	-0.27	0.41
36 Operating Cash Flow/Assets	-1.95	0.40	-5.84	-3.16	0.05	0.96	-1.81	0.17
37 Retained Earnings/Assets	-0.94	-0.64	-6.98	-3.29	-0.64	-0.35	3.30	0.84
38 1M Price Momentum	-0.76	0.48	-3.20	-1.43	1.62	1.26	-2.23	2.60

	Factor	Russell 1000		Russell 2000		MSCI EAFE		MSCI EM	
		3-Month	**1-Month**	**3-Month**	**1-Month**	**3-Month**	**1-Month**	**3-Month**	**1-Month**
39	3M Price Momentum	0.89	0.40	-1.59	-2.18	2.35	2.01	0.60	0.27
40	6M Price Momentum	2.39	0.48	0.07	-0.98	5.23	2.64	6.70	3.21
41	12M Price Momentum	4.83	0.74	0.84	-0.05	2.00	1.32	4.08	1.55
42	1M Mean Reversion	-3.32	0.85	-1.24	-0.72	0.68	-0.28	-3.12	2.09
43	3M Mean Reversion	1.08	1.55	2.08	-0.95	2.54	0.85	2.79	-0.45
44	12M Mean Reversion	2.73	0.98	2.61	0.85	2.09	0.43	-2.96	-2.37
45	Market Value	-1.17	-0.08	-4.62	-1.62	-2.40	-1.58	4.14	4.35
46	Index Beta	3.46	2.62	2.93	2.84	-0.47	0.03	-2.69	-2.02
47	Downside Risk	-0.07	0.59	3.08	2.95	-2.41	-1.94	-2.80	-3.19
48	VIX Beta	-2.83	-1.93	-1.90	-2.28	-4.02	-1.12	-1.64	0.95
49	Dividend Growth	4.29	1.98	3.54	0.56	1.21	0.68	1.67	0.01
50	Dividend Payout Ratio	-4.95	-1.36	-3.59	-1.91	4.30	1.38	-3.42	-0.90
51	Dividend Payout/Assets	-4.24	-1.14	-1.68	-1.55	0.59	1.21	-0.32	1.76
52	Gross Income Margin	1.29	0.24	0.27	-1.25	1.71	0.98	-2.16	-1.05
53	Net Income Margin	-4.19	-1.47	-3.80	-2.64	-3.52	0.47	-1.74	-1.82
54	Return on Common Equity	-1.49	-0.86	-3.21	-1.52	-1.33	0.69	-1.39	-0.62
55	Return on Total Equity	-1.43	-0.91	-3.47	-1.77	-1.35	0.76	-1.44	-0.71
56	Return on Total Assets	-2.22	-0.05	-4.13	-2.17	-2.26	0.13	-2.28	-1.33
57	Return on Total Capital	-0.46	-0.19	-4.19	-2.40	-2.04	0.60	-0.12	-0.63
58	Return on Invest Capital	-0.29	-0.22	-4.29	-2.48	-1.50	0.47	-0.90	-0.87

Source: FactSet Research Systems, Standard & Poor's, MSCI Barra, and Russell Investments