



William Blair & Company[®]

2009 US Growth Equity Market Review:
A Year of Mean Reversion



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January 2010

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What really happened in 2009? After analyzing a long list of quantitative factors, what we found is that Price Momentum was the most significant determinant in a stock's total return for 2009 (anti-Price Momentum was best). Said differently, stocks that performed poorly in 2008 did best during 2009. In hindsight, this is clearly the reversal of extreme fear and pessimism as investors realized the previously assumed economic "Armageddon" scenario was not going to occur in 2009.

Since Price Momentum is nothing fundamental in nature, what fundamental factors were driving the market's anti-Price Momentum bias, or Price Momentum reversal, during 2009? The answer is threefold:

1. Market Capitalization (smaller was better)
2. Valuation (cheaper was better)
3. Cyclicality (perceived or real, more was better)

A slight bias toward or away from any one of these factors, or a combination of the three, would have affected a manager's performance relative to a benchmark. The charts that follow depict the significance of each of these factors.

In the Appendix, we share our thoughts on quality. While there were certainly cases of low-quality stocks performing very well during 2009, the year was much more about mean reversion and less about quality.

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Notes to the Reader:

1. *The following charts are best viewed in color.*
2. *The green bars graphically depict the return for that quintile, and for ease of comparison, are on the same scale throughout this analysis.*
3. *The following charts examine three discrete market cap indices over two time periods – Calendar Year 2009, and from the March 2009 bottom through year end. The supporting commentary throughout the analysis primarily will focus on return dynamics off of the March 2009 bottom.*
4. *Only those quintiles representing greater than a 5% weight in the respective indices are used for analysis.*

Price Momentum Reversal: Previously Out-of-Favor Stocks Outperform in 2009

| Price Momentum: Trailing 1-year Return | From March 9th Bottom | | | | | | Calendar Year 2009 | | | | | |
|---|-----------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|----------------|--------------|----------------|--------------|
| | R2000G | | RMidG | | RTop200G | | R2000G | | RMidG | | RTop200G | |
| | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return |
| Previous Outperformers | 32.8 | 41.3 | 19.6 | 45.4 | 12.9 | 38.5 | 33.8 | 7.1 | 19.7 | 22.9 | 15.3 | 16.0 |
| Quintile 2 | 14.9 | 68.9 | 18.9 | 58.4 | 23.8 | 64.7 | 15.1 | 24.5 | 18.9 | 29.1 | 24.0 | 31.9 |
| Quintile 3 | 14.3 | 87.5 | 19.8 | 73.5 | 36.5 | 68.5 | 14.3 | 44.6 | 19.8 | 42.8 | 32.9 | 40.9 |
| Quintile 4 | 15.9 | 108.2 | 20.3 | 93.5 | 14.4 | 71.3 | 15.7 | 47.4 | 20.2 | 53.2 | 14.8 | 41.0 |
| Previous Underperformers | 21.5 | 159.7 | 20.9 | 131.7 | 12.2 | 104.4 | 20.5 | 87.0 | 20.7 | 84.7 | 12.2 | 75.3 |
| [N/A] | 0.7 | 81.2 | 0.5 | 75.2 | 0.3 | 7.3 | 0.6 | 41.5 | 0.6 | 56.7 | 0.8 | -12.3 |
| Total | 100.0 | 81.0 | 100.0 | 79.3 | 100.0 | 62.0 | 100.0 | 34.5 | 100.0 | 46.3 | 100.0 | 34.0 |

To determine the significance of a factor, we examine:

1. The return spread between the highest and lowest quintiles.
2. The linear nature of returns along the entire quintile spectrum.

- Notice, for each index, the significant total return spread between the highest and lowest momentum quintiles, and just as important, the strong linear effect as you move along the quintiles. For example, from March 9th through year-end within the Russell 2000 Growth Index, the “Previous Underperformers” returned 159.7% while the “Previous Outperformers” returned only 41.3%. The middle quintiles produced returns in a strong linear fashion (108.2%, 87.5%, and 68.9%, respectively).
- Thus, Price Momentum was a very significant risk factor within the market during 2009. As we compare this to the other factors on the following slides, it becomes apparent this was the most significant risk factor in the market. However, the three fundamental factors driving this dynamic (market cap, valuation, and cyclical) were significant as well.

Data as of 12/31/09. Quintiles are rebalanced quarterly. Calculated in FactSet. Past performance is not indicative of future returns. A direct investment in an unmanaged index is not possible. The Russell Midcap Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index. The Russell 2000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Small Cap companies with higher price-to-book ratios and higher forecasted growth values. Both are capitalization-weighted indices as calculated by Russell on a total return basis with dividends reinvested. The stocks in both indices are also members of the Russell 1000 Growth Index.

Market Capitalization: Smaller Capitalization Stocks Outperform in 2009

| Market Cap | From March 9th Bottom | | | | | | Calendar Year 2009 | | | | | |
|---------------------------|-----------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|----------------|--------------|----------------|--------------|
| | R2000G | | RMidG | | RTop200G | | R2000G | | RMidG | | RTop200G | |
| | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return |
| Bin 1: > 100000.0 | | | | | 32.5 | 59.2 | | | | | 30.2 | 33.4 |
| Bin 2: 50000.0 - 100000.0 | | | | | 21.5 | 57.5 | | | | | 23.4 | 33.4 |
| Bin 3: 30000.0 - 50000.0 | | | | | 15.7 | 46.3 | | | | | 15.7 | 22.2 |
| Bin 4: 15000.0 - 30000.0 | -- | -- | 0.3 | -1.2 | 21.3 | 65.6 | -- | -- | 0.3 | -1.2 | 21.5 | 31.6 |
| Bin 5: 10000.0 - 15000.0 | -- | -- | 11.9 | 59.4 | 7.5 | 76.1 | -- | -- | 12.0 | 39.9 | 7.6 | 44.6 |
| Bin 6: 7000.0 - 10000.0 | -- | -- | 16.1 | 66.1 | 1.3 | 139.3 | -- | -- | 16.2 | 38.3 | 1.3 | 77.6 |
| Bin 7: 5000.0 - 7000.0 | -- | -- | 17.8 | 78.2 | 0.2 | 48.2 | -- | -- | 18.0 | 40.4 | 0.2 | 44.5 |
| Bin 8: 3000.0 - 5000.0 | 0.7 | 6.0 | 27.8 | 74.1 | 0.0 | 91.1 | 0.8 | 21.9 | 27.4 | 38.6 | 0.1 | -9.7 |
| Bin 9: 2000.0 - 3000.0 | 4.0 | 33.8 | 15.6 | 81.8 | 0.0 | 270.9 | 4.3 | 3.9 | 15.4 | 50.5 | 0.0 | -11.2 |
| Bin 10: 1000.0 - 2000.0 | 30.7 | 62.3 | 9.0 | 113.4 | 0.0 | 174.1 | 30.8 | 18.2 | 9.3 | 73.2 | 0.0 | 174.1 |
| Bin 11: 750.0 - 1000.0 | 16.1 | 76.6 | 0.8 | 118.6 | -- | -- | 15.7 | 35.4 | 0.8 | 57.5 | -- | -- |
| Bin 12: 500.0 - 750.0 | 17.8 | 83.3 | 0.3 | 187.1 | -- | -- | 17.8 | 37.1 | 0.3 | 132.5 | -- | -- |
| Bin 13: 250.0 - 500.0 | 19.7 | 101.3 | 0.2 | 90.8 | 0.0 | 43.2 | 19.6 | 48.6 | 0.2 | 52.6 | 0.0 | -27.4 |
| Bin 14: 0.0 - 250.0 | 11.0 | 118.6 | 0.0 | 150.6 | -- | -- | 10.9 | 54.2 | 0.1 | 163.8 | -- | -- |
| [N/A] | 0.1 | -36.7 | 0.0 | 23.9 | -- | -- | 0.1 | -36.7 | 0.0 | 23.9 | -- | -- |
| Total | 100.0 | 81.0 | 100.0 | 79.3 | 100.0 | 62.0 | 100.0 | 34.5 | 100.0 | 46.3 | 100.0 | 34.0 |

- Although not as pronounced as the Price Momentum effect, the market cap effect was quite strong in the small- and mid-cap growth markets. The rally was greatest at the smaller end of each index.
- Within the Russell Top 200 Growth Index, the return spread between the largest and smallest market cap stocks was more modest, and the effect was not linear. This suggests the market cap effect was not a strong dynamic within this index alone.

Data as of 12/31/09. Market Cap Bins are rebalanced quarterly. Calculated in FactSet. Past performance is not indicative of future returns. A direct investment in an unmanaged index is not possible. The Russell Midcap Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index. The Russell 2000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Small Cap companies with higher price-to-book ratios and higher forecasted growth values. Both are capitalization-weighted indices as calculated by Russell on a total return basis with dividends reinvested. The stocks in both indices are also members of the Russell 1000 Growth Index.

Valuation*: Cheaper Stocks Outperform in 2009

| Valuation | From March 9th Bottom | | | | | | Calendar Year 2009 | | | | | |
|-------------------------|-----------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|----------------|--------------|----------------|--------------|
| | R2000G | | RMidG | | RTop200G | | R2000G | | RMidG | | RTop200G | |
| | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return |
| Cheapest Quintile | 6.1 | 133.4 | 7.7 | 131.3 | 1.2 | 123.5 | 5.8 | 58.4 | 8.0 | 77.4 | 1.2 | 76.3 |
| Quintile 2 | 12.8 | 115.0 | 21.0 | 108.4 | 10.6 | 67.8 | 12.5 | 56.5 | 20.9 | 67.2 | 10.8 | 42.3 |
| Quintile 3 | 19.4 | 76.0 | 25.1 | 77.9 | 41.3 | 78.0 | 19.5 | 33.5 | 24.9 | 48.3 | 41.2 | 43.9 |
| Quintile 4 | 22.3 | 68.8 | 26.0 | 54.4 | 37.3 | 45.4 | 22.7 | 23.8 | 26.1 | 26.2 | 37.4 | 21.6 |
| Most Expensive Quintile | 27.0 | 68.3 | 18.9 | 68.4 | 9.5 | 53.0 | 27.6 | 28.4 | 18.8 | 39.5 | 9.3 | 30.2 |
| [Unassigned] | 12.5 | 105.5 | 1.3 | 87.9 | 0.0 | 43.2 | 11.9 | 48.6 | 1.3 | 59.3 | 0.0 | -27.4 |
| Total | 100.0 | 81.0 | 100.0 | 79.3 | 100.0 | 62.0 | 100.0 | 34.5 | 100.0 | 46.3 | 100.0 | 34.0 |

- Valuation also was a meaningful factor driving the overarching Price Momentum reversal during 2009. Cheaper stocks were in demand as the market bounced off the March 2009 bottom.

* The Valuation factor within William Blair's Quantitative Tools. The Valuation score evaluates companies' valuations relative to their own history, peers and the market using a variety of historical and current metrics.

Data as of 12/31/09. Calculated in FactSet. Past performance is not indicative of future returns. A direct investment in an unmanaged index is not possible. The Russell Midcap Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index. The Russell 2000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Small Cap companies with higher price-to-book ratios and higher forecasted growth values. Both are capitalization-weighted indices as calculated by Russell on a total return basis with dividends reinvested. The stocks in both indices are also members of the Russell 1000 Growth Index.

Cyclicality (perceived or real): Most Cyclical Stocks Outperformed in 2009

| 2009 EPS Estimate Revisions June 30, 2008 to February 28, 2009 | From March 9th Bottom | | | | | | Calendar Year 2009 | | | | | |
|---|-----------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|----------------|--------------|----------------|--------------|
| | R2000G | | RMidG | | RTop200G | | R2000G | | RMidG | | RTop200G | |
| | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return |
| Perceived Least Cyclical | 24.83 | 46.48 | 19.62 | 47.67 | 19.50 | 30.88 | 25.49 | 18.36 | 19.73 | 26.56 | 19.60 | 13.54 |
| Quintile 2 | 15.11 | 65.55 | 19.39 | 56.65 | 32.61 | 58.68 | 15.11 | 26.41 | 19.52 | 33.89 | 32.43 | 32.47 |
| Quintile 3 | 13.11 | 89.96 | 19.77 | 79.07 | 20.64 | 89.27 | 13.18 | 40.83 | 19.76 | 43.72 | 20.48 | 49.77 |
| Quintile 4 | 16.08 | 107.01 | 19.08 | 102.56 | 15.73 | 76.33 | 15.92 | 46.47 | 19.08 | 56.10 | 15.59 | 43.59 |
| Perceived Most Cyclical | 18.48 | 131.05 | 20.29 | 121.16 | 11.52 | 66.15 | 18.17 | 57.72 | 20.15 | 74.16 | 11.90 | 35.98 |
| [N/A] | 12.38 | 79.07 | 1.85 | 84.23 | -- | -- | 12.13 | 25.83 | 1.75 | 69.91 | -- | -- |
| Total | 100.00 | 80.97 | 100.00 | 79.29 | 100.00 | 62.02 | 100.00 | 34.47 | 100.00 | 46.30 | 100.00 | 34.01 |

- To measure cyclicality, we used revisions to Wall Street consensus 2009 earnings estimates during the period of time when investor fear and pessimism was most pervasive (i.e. second half of 2008 and early 2009). Companies perceived to be the most cyclical, or sensitive to changes in the economy, would have had their earnings revised down the most during that time period, and vice versa.
- One can see the significant total return spread and the strong linear effect in the small- and mid-cap growth indices, suggesting this risk factor was another sizable contributor to the Price Momentum reversal of 2009.

Data as of 12/31/09. Stocks are quintiled according to the percentage change in their 2009 consensus earnings estimate from 6/30/2008 to 2/28/2009. Calculated in FactSet. Past performance is not indicative of future returns. A direct investment in an unmanaged index is not possible. The Russell Midcap Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index. The Russell 2000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Small Cap companies with higher price-to-book ratios and higher forecasted growth values. Both are capitalization-weighted indices as calculated by Russell on a total return basis with dividends reinvested. The stocks in both indices are also members of the Russell 1000 Growth Index.

Why Mid Cap Growth Stocks in 2009?

- One interesting interpretation of the data presented in this analysis might help explain why the Russell Midcap Growth Index outperformed its small- and large-cap growth counterparts. If it were just about market cap, one would expect the Russell 2000 Growth to be the leading growth index for 2009. However, this was not the case.
- The index performance could very much be explained by the Price Momentum effect. In the table below, at the beginning of 2009, the mid cap growth index had a larger weighting of “2008 Underperformers” and a lower weighting of “2008 Outperformers” than both the small- and large-cap growth indices. Given the magnitude of the Price Momentum reversal during 2009, the differences in weights between indices across the quintiles was quite meaningful to overall index performance in 2009.
- This supports the notion that 2009 can most accurately be described as a year of mean reversion.

| Price Momentum: Trailing 1-yr Return | R2000G Weight | RMG Weight | RT200G Weight |
|---|------------------|---------------|------------------|
| 2008 Outperformers | 38.71 | 20.51 | 27.03 |
| Quintile 2 | 16.16 | 19.15 | 25.26 |
| Quintile 3 | 13.89 | 19.66 | 15.82 |
| Quintile 4 | 14.86 | 19.79 | 16.48 |
| 2008 Underperformers | 15.91 | 19.62 | 11.86 |
| [N/A] | 0.47 | 1.27 | 3.55 |
| Total | 100.00 | 100.00 | 100.00 |

Data as of 12/31/08. Calculated in FactSet. Past performance is not indicative of future returns. A direct investment in an unmanaged index is not possible. The Russell Midcap Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index. The Russell 2000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Small Cap companies with higher price-to-book ratios and higher forecasted growth values. The Russell Top 200 Growth Index measures the performance of the especially large cap segment of the U.S. equity universe represented by stocks in the largest 200 by market cap that exhibit growth characteristics. It includes Russell Top 200 Index companies with higher price-to-book ratios and higher forecast growth values. All three indices are capitalization-weighted indices as calculated by Russell on a total return basis with dividends reinvested. The stocks in these indices are also members of the Russell 1000 Growth Index.

Appendix: Thoughts on Quality – Market Cap Bias in Common Quality Metrics

- Before we examine the effects of quality during 2009 on the following pages, we first should discuss the inherent market cap bias prevalent in many common measures of quality, especially those impacted by economies of scale. Return on Equity (ROE) and other return-based measures, as well as profit margins, are examples of quality metrics impacted by economies of scale. The table below shows there is a great deal of market cap bias in ROE. While we would agree that return-based metrics such as ROE are necessary inputs to measuring quality, one should be cognizant of this bias when looking at these metrics in isolation.

| | <u>Average</u> | <u>Weighted Average</u> |
|------------------|----------------|-------------------------|
| Highest Quintile | 7,286 | 91,822 |
| Quintile 2 | 10,029 | 68,604 |
| Quintile 3 | 7,026 | 55,052 |
| Quintile 4 | 4,325 | 33,607 |
| Lowest Quintile | 1,596 | 12,415 |

- S&P Quality Ratings and Price, used by some market participants, are poor proxies for quality given they are plagued with market cap bias. The significance of this bias is shown in the tables below.

| | <u>Average</u> | <u>Weighted Average</u> |
|---------------------|----------------|-------------------------|
| Rating (A+) | 37,373 | 128,429 |
| Rating (A) | 13,005 | 52,742 |
| Rating (A-) | 8,535 | 40,465 |
| Rating (B+) | 6,941 | 53,030 |
| Rating (B) | 3,596 | 33,336 |
| Rating (B-) | 1,798 | 15,606 |
| Rating (C or worse) | 782 | 5,555 |

| | <u>Average</u> | <u>Weighted Average</u> |
|--------------------|----------------|-------------------------|
| Bin 1: > 50.0 | 22,943 | 85,222 |
| Bin 2: 20.0 - 50.0 | 4,867 | 27,204 |
| Bin 3: 15.0 - 20.0 | 4,060 | 66,467 |
| Bin 4: 10.0 - 15.0 | 1,753 | 24,024 |
| Bin 5: 5.0 - 10.0 | 732 | 5,067 |
| Bin 6: 0.0 - 5.0 | 238 | 988 |

Data above is from the Russell 3000 Growth Index as of 12/31/08. Calculated in FactSet. Past performance is not indicative of future returns. A direct investment in an unmanaged index is not possible. The Russell Midcap Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index. The Russell 2000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Small Cap companies with higher price-to-book ratios and higher forecasted growth values. The Russell Top 200 Growth Index measures the performance of the especially large cap segment of the U.S. equity universe represented by stocks in the largest 200 by market cap that exhibit growth characteristics. It includes Russell Top 200 Index companies with higher price-to-book ratios and higher forecast growth values. All three indices are capitalization-weighted indices as calculated by Russell on a total return basis with dividends reinvested. The stocks in these indices are also members of the Russell 1000 Growth Index.

Appendix: Thoughts on Quality – ROE Not Meaningful in 2009

| Return on Equity (1-Year) | From March 9th Bottom | | | | | | Calendar Year 2009 | | | | | |
|---------------------------|-----------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|----------------|--------------|----------------|--------------|
| | R2000G | | RMidG | | RTop200G | | R2000G | | RMidG | | RTop200G | |
| | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return |
| Highest Quintile | 7.9 | 87.4 | 19.5 | 78.6 | 29.0 | 55.9 | 8.1 | 39.6 | 19.5 | 46.9 | 28.5 | 30.2 |
| Quintile 2 | 10.1 | 73.6 | 19.5 | 83.1 | 26.2 | 57.1 | 9.5 | 28.5 | 19.5 | 44.7 | 26.0 | 32.7 |
| Quintile 3 | 16.0 | 74.0 | 19.0 | 59.0 | 24.9 | 69.3 | 15.6 | 26.7 | 19.1 | 32.1 | 25.5 | 38.4 |
| Quintile 4 | 25.2 | 66.6 | 19.0 | 73.1 | 13.7 | 67.7 | 24.9 | 22.8 | 19.1 | 38.6 | 13.3 | 29.9 |
| Lowest Quintile | 37.4 | 90.1 | 19.9 | 107.2 | 6.1 | 62.3 | 38.8 | 41.6 | 19.9 | 71.5 | 6.6 | 38.4 |
| [N/A] | 3.4 | 122.1 | 3.1 | 59.3 | 0.0 | -16.8 | 3.2 | 100.1 | 2.9 | 44.6 | 0.1 | -38.9 |
| Total | 100.0 | 81.0 | 100.0 | 79.3 | 100.0 | 62.0 | 100.0 | 34.5 | 100.0 | 46.3 | 100.0 | 34.0 |

| Return on Equity (5-Year) | From March 9th Bottom | | | | | | Calendar Year 2009 | | | | | |
|---------------------------|-----------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|----------------|--------------|----------------|--------------|
| | R2000G | | RMidG | | RTop200G | | R2000G | | RMidG | | RTop200G | |
| | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return |
| Highest Quintile | 7.8 | 98.2 | 18.8 | 76.4 | 23.8 | 55.9 | 8.0 | 42.1 | 19.1 | 42.8 | 22.5 | 27.7 |
| Quintile 2 | 7.3 | 80.8 | 18.8 | 84.4 | 27.9 | 63.8 | 7.7 | 30.6 | 18.8 | 47.3 | 30.6 | 36.2 |
| Quintile 3 | 10.8 | 76.7 | 18.4 | 68.8 | 28.0 | 61.8 | 11.0 | 29.5 | 18.8 | 38.5 | 26.3 | 35.6 |
| Quintile 4 | 19.1 | 70.8 | 18.3 | 75.7 | 10.0 | 66.2 | 18.7 | 25.6 | 18.4 | 45.7 | 10.1 | 28.2 |
| Lowest Quintile | 40.8 | 75.7 | 18.9 | 93.0 | 7.3 | 50.9 | 42.7 | 32.9 | 19.0 | 57.7 | 8.1 | 29.2 |
| [N/A] | 14.1 | 136.8 | 6.8 | 87.4 | 3.0 | 24.1 | 11.9 | 76.5 | 5.8 | 66.9 | 2.5 | 24.1 |
| Total | 100.0 | 81.0 | 100.0 | 79.3 | 100.0 | 62.0 | 100.0 | 34.5 | 100.0 | 46.3 | 100.0 | 34.0 |

- Both 1-year and 5-year ROE were not meaningful factors in the market during 2009, even before compensating for market cap bias. Within the mid cap growth data, the lowest quintile of ROE performed better than the highest quintile, but the lack of any linear effect suggests the data is not statistically significant. And the return spread between the lowest and highest quintiles, which pales in comparison to the price momentum, market cap, valuation and cyclicity data, is probably driven by the market cap effect. The data for the small cap growth market is even more mixed, with the 5-year ROE suggesting higher ROE stocks did slightly better.

Data as of 12/31/09. Calculated in FactSet. Past performance is not indicative of future returns. A direct investment in an unmanaged index is not possible. The Russell Midcap Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index. The Russell 2000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Small Cap companies with higher price-to-book ratios and higher forecasted growth values. Both are capitalization-weighted indices as calculated by Russell on a total return basis with dividends reinvested. The stocks in both indices are also members of the Russell 1000 Growth Index.

Appendix: Thoughts on Quality – Slight Bias to Lower Quality in Debt to Capital

| Debt/Capital | From March 9th Bottom | | | | | | Calendar Year 2009 | | | | | |
|------------------|-----------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|----------------|--------------|----------------|--------------|
| | R2000G | | RMidG | | RTop200G | | R2000G | | RMidG | | RTop200G | |
| | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return |
| Highest Quintile | 14.7 | 110.9 | 20.2 | 90.2 | 11.4 | 83.4 | 14.8 | 54.4 | 20.0 | 45.2 | 9.8 | 12.9 |
| Quintile 2 | 14.0 | 91.1 | 19.5 | 73.3 | 16.3 | 53.8 | 14.1 | 30.7 | 19.6 | 40.5 | 17.4 | 31.3 |
| Quintile 3 | 11.7 | 75.5 | 19.8 | 73.9 | 24.9 | 53.2 | 11.9 | 25.7 | 19.8 | 46.3 | 25.5 | 20.6 |
| Quintile 4 | 22.6 | 79.5 | 19.8 | 77.9 | 29.6 | 54.3 | 21.5 | 33.1 | 19.7 | 48.4 | 29.4 | 30.3 |
| Lowest Quintile | 36.3 | 69.3 | 19.7 | 80.1 | 17.8 | 88.6 | 36.8 | 32.0 | 19.6 | 48.9 | 17.9 | 64.1 |
| [N/A] | 0.8 | 179.9 | 1.1 | 85.1 | -- | -- | 0.8 | 109.6 | 1.3 | 57.6 | -- | -- |
| Total | 100.0 | 81.0 | 100.0 | 79.3 | 100.0 | 62.0 | 100.0 | 34.5 | 100.0 | 46.3 | 100.0 | 34.0 |

- One typical (albeit quite simplistic in isolation) quality metric is Debt to Capital. This metric does not have a market cap bias and does show a slight bias to lower quality, primarily in the small cap growth index.
- But again, the return differentials across quintiles pale in comparison to the differentials for price momentum, market cap, valuation and cyclicity. This suggests that perhaps this measure of quality was not a principal driver of returns in 2009.

Data as of 10/23/09. Calculated in FactSet. Past performance is not indicative of future returns. A direct investment in an unmanaged index is not possible. The Russell Midcap Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index. The Russell 2000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Small Cap companies with higher price-to-book ratios and higher forecasted growth values. Both are capitalization-weighted indices as calculated by Russell on a total return basis with dividends reinvested. The stocks in both indices are also members of the Russell 1000 Growth Index.

Appendix: Thoughts on Quality – Performance as Expected Given Market Cap Bias

| S&P Quality Ratings | From March 9th Bottom | | | | | | Calendar Year 2009 | | | | | |
|---------------------|-----------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|----------------|--------------|----------------|--------------|
| | R2000G | | RMidG | | RTop200G | | R2000G | | RMidG | | RTop200G | |
| | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return |
| Rating (A+) | 1.0 | 48.0 | 5.8 | 58.0 | 22.4 | 45.0 | 0.9 | 13.0 | 5.5 | 25.4 | 21.8 | 15.6 |
| Rating (A) | 1.7 | 63.3 | 6.8 | 58.4 | 11.8 | 61.8 | 1.7 | 16.8 | 7.0 | 19.1 | 11.9 | 34.3 |
| Rating (A-) | 2.5 | 96.8 | 7.0 | 84.4 | 9.0 | 47.0 | 2.5 | 27.9 | 7.2 | 48.8 | 9.2 | 17.2 |
| Rating (B+) | 11.2 | 82.2 | 26.9 | 63.4 | 27.0 | 71.5 | 11.1 | 25.1 | 27.0 | 31.5 | 27.0 | 38.9 |
| Rating (B) | 15.5 | 68.8 | 17.1 | 90.7 | 13.4 | 77.2 | 15.6 | 24.8 | 17.4 | 59.6 | 13.4 | 58.2 |
| Rating (B-) | 21.1 | 85.6 | 12.8 | 104.5 | 4.2 | 48.5 | 20.6 | 33.7 | 12.4 | 72.4 | 4.4 | 27.3 |
| Rating (C or worse) | 13.0 | 80.6 | 4.4 | 78.3 | 1.3 | 35.5 | 12.7 | 42.0 | 4.1 | 57.3 | 1.2 | 25.4 |
| [N/A] | 34.0 | 84.9 | 19.3 | 93.7 | 11.0 | 81.5 | 34.8 | 42.0 | 19.5 | 60.0 | 11.1 | 54.7 |
| Total | 100.0 | 81.0 | 100.0 | 79.3 | 100.0 | 62.0 | 100.0 | 34.5 | 100.0 | 46.3 | 100.0 | 34.0 |

| Price | From March 9th Bottom | | | | | | Calendar Year 2009 | | | | | |
|--------------------|-----------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|----------------|--------------|----------------|--------------|
| | R2000G | | RMidG | | RTop200G | | R2000G | | RMidG | | RTop200G | |
| | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return | Average Weight | Total Return |
| Bin 1: > 50.0 | 4.1 | 45.2 | 17.3 | 48.4 | 41.7 | 52.8 | 4.2 | 7.6 | 17.1 | 25.2 | 42.6 | 31.3 |
| Bin 2: 20.0 - 50.0 | 40.1 | 55.7 | 58.3 | 70.6 | 44.4 | 60.9 | 40.3 | 14.1 | 57.5 | 36.6 | 42.2 | 25.4 |
| Bin 3: 15.0 - 20.0 | 16.3 | 78.1 | 12.3 | 99.9 | 11.0 | 81.2 | 16.0 | 36.5 | 12.9 | 68.3 | 11.7 | 50.1 |
| Bin 4: 10.0 - 15.0 | 15.4 | 89.2 | 7.4 | 107.2 | 2.4 | 78.2 | 15.4 | 42.6 | 7.4 | 65.3 | 3.0 | 49.0 |
| Bin 5: 5.0 - 10.0 | 16.2 | 104.2 | 3.6 | 196.1 | 0.4 | 122.2 | 16.1 | 52.6 | 3.9 | 147.0 | 0.5 | 88.2 |
| Bin 6: 0.0 - 5.0 | 7.9 | 158.8 | 1.0 | 175.0 | 0.0 | 263.8 | 8.0 | 88.1 | 1.1 | 135.2 | 0.0 | 84.4 |
| [N/A] | 0.0 | -32.1 | 0.0 | 17.6 | -- | -- | 0.0 | -32.1 | 0.0 | 17.6 | -- | -- |
| Total | 100.0 | 81.0 | 100.0 | 79.3 | 100.0 | 62.0 | 100.0 | 34.5 | 100.0 | 46.3 | 100.0 | 34.0 |

- Lower priced and lower rated stocks did better in the data above. One should expect this given, 1) the extreme market cap bias in both S&P Quality Ratings and Price, and 2) the fact that lower market cap stocks outperformed. Said differently, the effect shown in these two metrics was market cap driven. As an aside, note the amount of “N/A’s” in the S&P Quality Ratings across indices as further evidence of its underlying biases.

Data as of 12/31/09. Calculated in FactSet. Past performance is not indicative of future returns. A direct investment in an unmanaged index is not possible. The Russell Midcap Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index. The Russell 2000 Growth Index is an unmanaged index registered to Russell/Mellon. It measures the performance of those Russell Small Cap companies with higher price-to-book ratios and higher forecasted growth values. Both are capitalization-weighted indices as calculated by Russell on a total return basis with dividends reinvested. The stocks in both indices are also members of the Russell 1000 Growth Index.