

U.S. Stock Selection Model Performance Review

The most effective investment strategies in 2014

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Since the launch of the four S&P Capital IQ™ U.S. stock selection models in January 2011, the performance of all four models [Growth Benchmark Model, Value Benchmark Model, Quality Model, and Price Momentum Model] has been positive and 2014 was no exception. Our models' key differentiators - distinct formulation for large cap and small cap stocks, special treatment for the financial sector, sector neutrality to target stock specific alpha, and factor diversity - enabled the models to outperform across various market environments. In this report, we review the underlying drivers of each model's performance over the 12 months ended December 31, 2014, document performance from January 2011 when the models went live, and provide full model performance history from January 1987.

- **All four models generated positive long-short return¹ spreads² ["Spread"] and information coefficients [IC]³ during 2014 [Table 1] and out-of-sample period 2011 - 2014 [Table 2].** The models had positive quintile 1 excess returns⁴ ["Excess"] over the same period.
- **All four models posted positive return Spreads in each of the last six months of 2014 (even in September, when all major U.S. indices were down and eight of ten GICS sectors showed negative performance) - with the exception of the Quality model which generated slightly negative Spread [-0.52%] in December.** We detail the models' monthly equal-weighted return Spreads and ICs for 2014 in Figure 1 & Figure 2.
- **The Value Benchmark Model delivered the strongest 2014** average monthly return Spread [1.47%], top quintile [Q1] Excess return [0.63%] and IC [0.064]; while the Price Momentum Model was weakest on all three measures.
- **For the out-of-sample period [Table 2] the Growth Benchmark Model had the best performance** in terms of average monthly long-short Spread [1.42%]; the Value Benchmark Model generated Q1 average monthly Excess return [0.34%] comparable to that from the Growth Benchmark Model.
- Similar to what we observed in 2013, **Valuation was the main driver of performance in the Growth Benchmark, Value Benchmark and Quality Models** - generating average monthly return Spreads [ICs] of 1.48% [0.049], 1.30% [0.057], and 1.31% [0.063] respectively in 2014.
- **All models posted robust performance after controlling for Market Cap and Beta.**

¹ See "Explanation of Returns..." on page 3 for explanation of returns and terminology used in this report.

² Long-short return spreads, or "Spread", as used in this report, is the equal-weighted return to a top quintile portfolio minus the equal-weighted return of the bottom quintile portfolio.

³ Information Coefficient, or "IC", as used in this report, is the correlation of monthly ranked model scores with monthly ranked forward returns of each stock in the universe.

⁴ Quintile 1 [Q1] excess return, or "Excess", is the average return to the top quintile equal-weighted portfolio minus the return of the equal-weighted benchmark.

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Table 1: Model Historical Summary Performance
Russell 3000 Growth/Russell 3000 Value/Russell 3000
[January 2014 - December 2014]

Model Name	Universe	Average 1-Month Spread	Average Q1 Monthly Excess Return	Average 1-Month IC
Growth Benchmark Model ("GBM")	Russell 3000 Growth	1.25%	0.26%	0.040
Value Benchmark Model ("VBM")	Russell 3000 Value	1.47%	0.63%	0.064
Quality Model ("QM")	Russell 3000	1.04%	0.38%	0.056
Price Momentum Model ("PMM")	Russell 3000	0.55%	0.12%	0.035

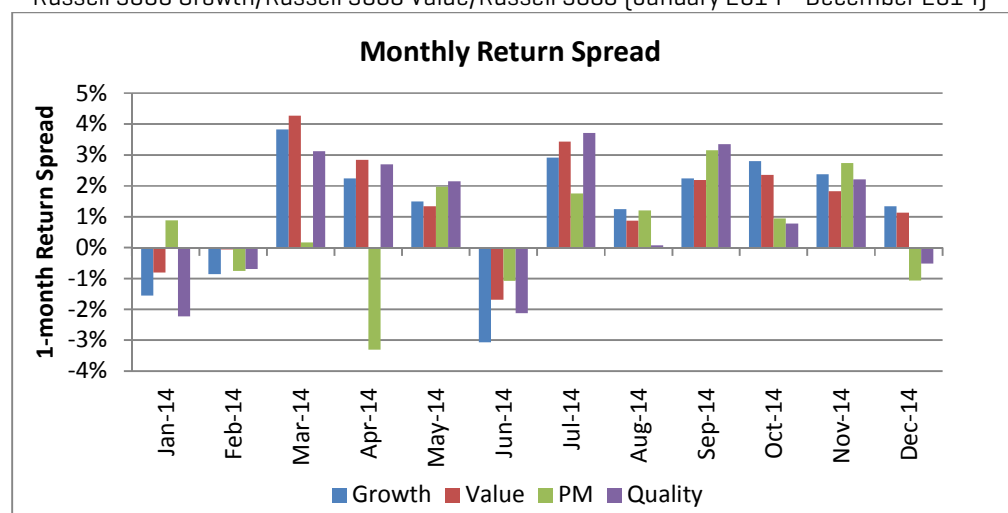
Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

Table 2: Model Historical Summary Performance
Russell 3000 Growth/Russell 3000 Value/Russell 3000
[Out-of-sample January 2011 - December 2014]

Model Name	Universe	Average 1-Month Spread	Average Q1 Monthly Excess Return	Average 1-Month IC
Growth Benchmark Model ("GBM")	Russell 3000 Growth	1.42%	0.34%	0.048
Value Benchmark Model ("VBM")	Russell 3000 Value	1.24%	0.34%	0.050
Quality Model ("QM")	Russell 3000	0.95%	0.38%	0.047
Price Momentum Model ("PMM")	Russell 3000	0.75%	0.24%	0.048

Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

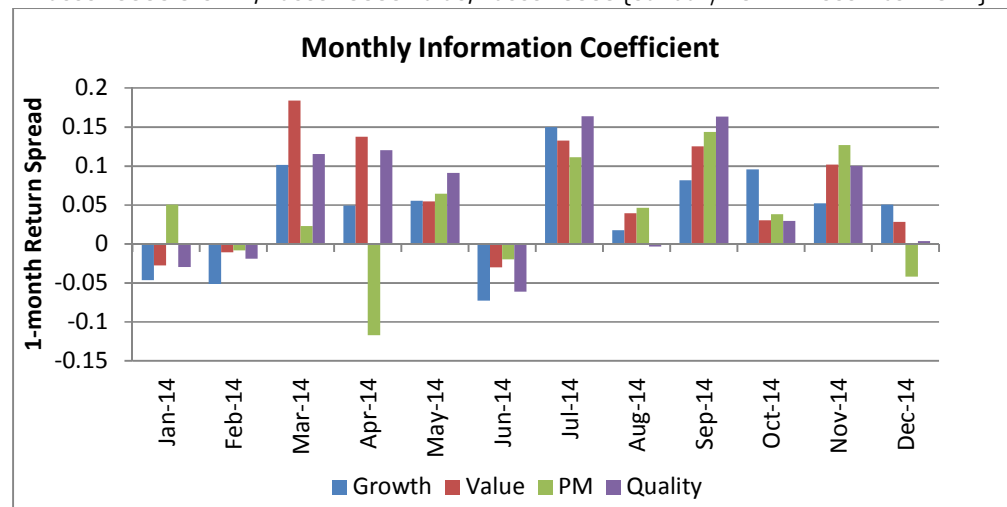
Figure 1: Monthly Historical Equal-Weighted Return Spread
Russell 3000 Growth/Russell 3000 Value/Russell 3000 [January 2014 - December 2014]



Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

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Figure 2: Monthly Information Coefficient:
Russell 3000 Growth/Russell 3000 Value/Russell 3000 [January 2014 - December 2014]



Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

All models had up or down return Spreads and ICs in the same months – as noted in Figures 1 and 2, except for Price Momentum which showed opposite performance in January, April and December.

Explanation of Returns Presented in this Paper

This paper presents the returns of hypothetical portfolios formed based on the model scores. All returns, regardless of type are calculated based on actual historical returns of the underlying stocks that pass the top and/or bottom 20% screens but do not represent actual trading results and they do not include payments of any sales charges, fees, or trading costs. Such costs would have lowered performance. It is not possible to invest directly in an index or the model portfolios on which the results presented here are based. Past performance is not a guarantee of future results.

“Spread” returns, also referred to as return Spreads or long-short return spreads, are the return of a screen portfolio of the top 20% of ranked stocks [Quintile 1] minus the bottom 20% screen portfolio [Quintile 5]. Stock returns within each portfolio are equally-weighted. The hypothetical portfolios are rebalanced at calendar month end.

“Excess” returns are of hypothetical portfolios formed of the top 20% of ranked stocks [referred to as “Quintile 1” or “Q1”] minus the return of the equally-weighted universe. Where noted in tables, Q2, Q3, Q4, and Q5 present the returns of hypothetical portfolios of the lower ranked quintiles, each containing a distinct 20% portion of the universe.

“Absolute” returns are the hypothetical return of the equally-weighted portfolio without subtracting benchmark returns.

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“Information Coefficient”, or “IC” is the rank correlation of the model monthly scores with the forward 1-month returns of the underlying stocks.

“Information Ratio” or “IR”, of a result is the average of monthly values over the period divided by the standard deviation of the same values.

The return of the equally-weighted universe is the return of a hypothetical portfolio containing the constituents of the reference index [such as the Russell 3000], with equal weight and rebalanced monthly.

The models were released in January 2011 and were constructed with benefit of hindsight for returns prior to 2011. We refer to the historical period before 2011 as “in-sample”. We refer to the performance of the model from 2011 and beyond as the “out-of-sample” period.

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1 Growth Benchmark Model

The Growth Benchmark Model ["GBM"] was created to outperform a growth benchmark, defined as the Russell 3000 Growth Index. The model identifies companies with a consistent track record of earnings growth as well as emerging growth candidates. The model scores are based on seven sub-components: Earnings Momentum, Historical Growth, Liquidity & Leverage, Price Momentum, Value, Quality, and Capital Efficiency. Table 3 shows the summary performance of the model from January 1987 to December 2014.

Table 3: Historical Summary Performance Statistics for Growth Benchmark Model
Russell 3000 Growth Universe [January 1987 – December 2014]

	Q1	Q2	Q3	Q4	Q5	Long-Short Return Spread
Average Monthly Absolute Return ⁵	1.67%***	1.22%	0.97%	0.65%	-0.01%	1.68%***
Annualized Absolute Return	21.98%	15.67%	12.28%	8.07%	-0.16%	22.17%
Annualized Information Ratio ⁶	1.76	0.83	0.10	-1.22	-1.44	1.85

Information Coefficient Summary	
Avg 1-Month IC	0.057***
1-Month IC Information Ratio	0.933
1-Month IC Hit Rate ⁷	85%***

*** 1% level of significance

Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

1.1 Historical Model Performance in 2014

Figure 3 displays the 1-month historical average return Spreads and 1 month ICs for the model in 2014. The GBM generated positive return Spreads and ICs in 9 out of 12 months during 2014 – except for January, February, and June. Stocks struggled across the entire U.S. market at the beginning of 2014, with no exception for the Russell 3000 Growth Index – which dropped 2.76% during January due to emerging market worries and weak earnings. Similarly, the GBM also slipped 1.56%. The model had the worst performance in June in terms of both return Spread [-3.06%] and IC [-0.07] as all seven sub-components posted negative Spreads.

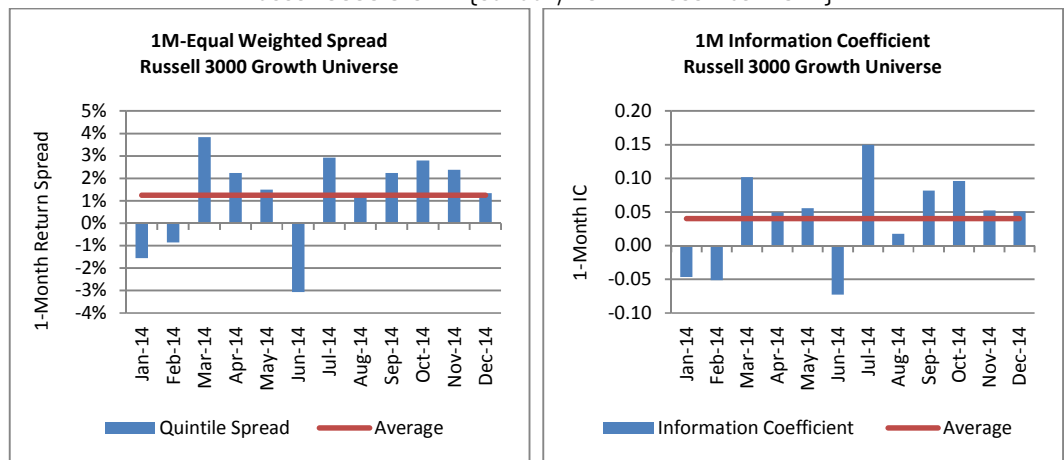
⁵ Average Monthly Returns are Absolute returns based on a monthly rebalanced portfolio.

⁶ Information Ratio calculated on monthly excess returns relative to the equal-weighted benchmark.

⁷ IC Hit Rate is defined as percent of months where the IC is positive.

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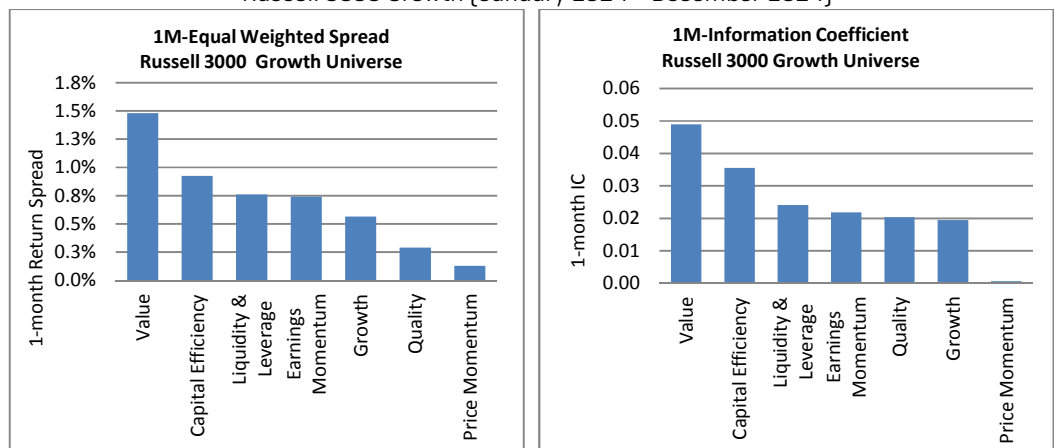
Figure 3: 1M-Equal Weighted Return Spread and Information Coefficient
Russell 3000 Growth (January 2014 - December 2014)



Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results

Figure 4 shows the average 1-month historical return Spread and IC for each sub-component of the Growth Model for 2014. All sub-components generated positive return Spreads and ICs during the year. The Value sub-component was the top theme in terms of both return Spread and IC, while Price Momentum was the weakest. The Value sub-component was also the top performing theme during the out-of-sample period from January 2011 through December 2014.

Figure 4: Growth Benchmark Model Sub-components:
Historical 1M-Equal Weighted Spread and Information Coefficient
Russell 3000 Growth (January 2014 - December 2014)



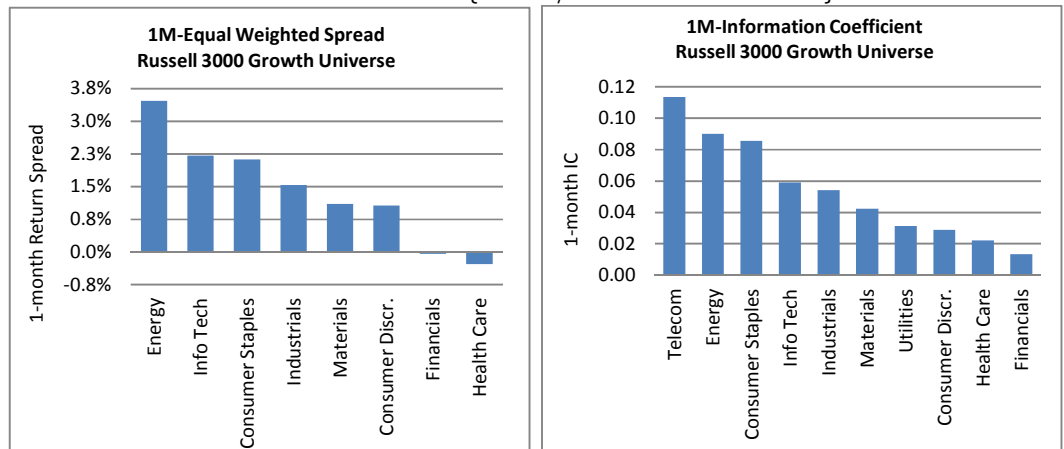
Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

1.2 Historical Sector Performance

Figure 5 breaks out the historical return Spread and Information Coefficient of the model for the eight GICS sectors. Telecom and Utilities are excluded because of limited coverage in the benchmark (twenty-eight and eight securities on average respectively).

Figure 5: Growth Benchmark Model Sector: 1M-Equal Weighted Historical Spread and IC

Russell 3000 Growth [January 2014 - December 2014]



Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results

The Growth Benchmark Model showed positive 1-month average Spreads in six of the eight sectors, with only Financials and Health Care underperforming. Although the model posted positive return Spreads in six of twelve months for the Health Care sector, the overall sector still delivered a negative Spread of -0.28%. This is due to the dramatic drop in January [-6.38%], February [-6.39%], and June [-9.12%]. The average IC score, which indicates the effectiveness of the model rank across the whole sector rather than the extremes, was positive for all sectors. Both measures showed a similar pattern, with the strongest model performance in Energy, Info Tech, and Consumer Staples.

1.3 Quintile Portfolio Characteristics and Portfolio Tilt Neutralization

Table 4 reports the median market capitalization and 60-month CAPM Beta of the top and bottom quintile portfolios. The median market cap of the long portfolio (Quintile 1) was \$1811 million compared with \$1478 million for the short portfolio, indicating that the model is tilted toward large cap names. The median Beta of the long and short portfolios are similar [1.26 vs. 1.20]. This suggests that the Growth Benchmark Models was not largely driven by the performance of high vs. low beta stocks in 2014.

Table 4: Growth Benchmark Model: Median Market Cap and Median 60-Month CAPM Beta

Quintile 1 and Quintile 5 Portfolios - Russell 3000 Growth Universe
(January 2014 -December 2014)

Median Measure	Quintile 1	Quintile 5
Market Cap (\$ Million)	1811	1478
60M CAPM Beta	1.26	1.20

Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

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Large cap growth stocks (proxied by the Russell 1000 Growth Index) outperformed their small cap counterparts (proxied by the Russell 2000 Growth Index) by 7.4% in 2014, so some of the outperformance of the Growth Benchmark Model (GBM) can be attributed to the large cap exposure. To account for this, we backtest the GBM after accounting for size and beta exposure, the result is presented in Table .

Table 5: Growth Benchmark Model: Original and Size & Beta Neutralized Historical Results

Russell 3000 Growth Universe (January 2014 - December 2014)

Model	Average 1-Month Return Spread	Average 1-month IC
Original GBM	1.25%	0.040
Size/Beta Neutral GBM	1.18%	0.038

Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

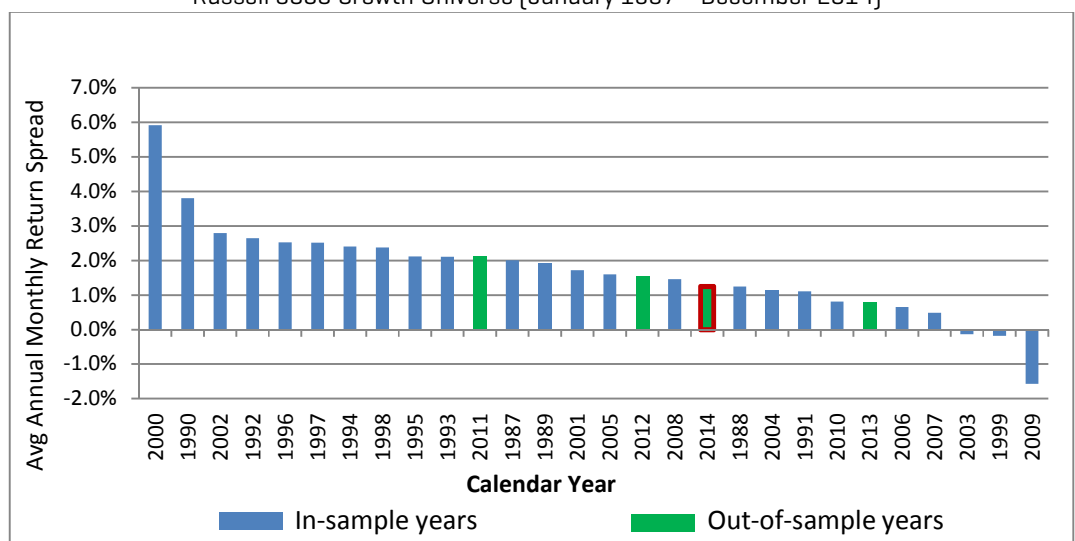
After neutralizing for size and Beta, the historical performance of the GBM was slightly lower, with a reduction in average monthly Spread of 7bps to 1.18%, and a reduction in IC from 0.040 to 0.038. This signifies that the model benefitted marginally from the outperformance of large caps.

1.4 Historical Comparison

The GBM's return Spread [green bar with red border] in 2014 was on par with the past in-sample [blue bars 1987-2010] and out-of-sample [green bars 2011-2014] performance (Figure 6). The return Spread for the model in the out-of-sample period was 1.42%, which compares well with the in-sample (1987-2010 the model research period) performance of 1.73%. The worst performing year was 2009 (low price, high beta rally) at -1.57% average monthly Spread. Other calendar years with negative Spread were 1999 (tech bubble) and 2003 (junk rally).

Figure 6: Growth Benchmark Model: Historical Year Average Monthly Quintile Return Spread:

Russell 3000 Growth Universe (January 1987 - December 2014)



Source: S&P Capital IQ Quantamental Research. Years sorted in descending order of performance. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

2 Value Benchmark Model

The Value Benchmark Model identifies under-priced stocks with strong underlying fundamentals, using intrinsic and relative valuation measures. The model selects companies with high earnings quality, stable growth rates, and increasing street sentiment. The Value Benchmark Model has six sub-components: Valuation, Earnings Quality, Financial Health, Growth Stability, Street Sentiment, and Price Momentum. Summary performance results from January 1987 to December 2014 are presented in Table 6.

Table 6: Summary Historical Performance Statistics for Value Benchmark Model
Russell 3000 Value Universe [January 1987 – December 2014]

	Q1	Q2	Q3	Q4	Q5	Long-Short Return Spread
Average Monthly Absolute Return	1.47%***	1.09%	0.83%	0.50%	-0.31%	1.78%***
Annualized Absolute Return	19.16%	13.92%	10.43%	6.15%	-3.65%	23.59%
Annualized Information Ratio	1.40	0.20	-0.79	-2.60	-2.87	2.90

Information Coefficient Summary	
Average 1-month IC	0.058***
1-month IC Information Ratio	1.02
1-month IC Hit Rate	85%***

*** 1% level of significance

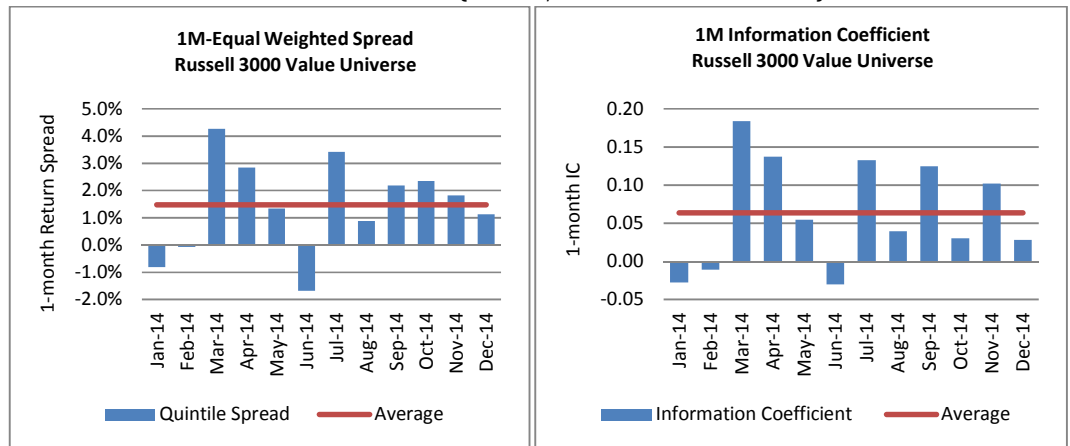
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2.1 Historical Model Performance in 2014

We chart the average 1-month return Spread and 1 month IC for the VBM in the Russell 3000 Value Index for 2014 in Figure 7. The average historical monthly return Spread and IC were 1.47% and 0.064 respectively. The model generated both a positive IC and return Spread for nine out of 12 months, as well as a positive IC and return Spread for each of the six final months of the year. Similar to what we observed in GBM, January [overall stock market decline] and June were the worst months in terms of both return Spread and IC for VBM too. All sub-components [except 'Growth Stability'] had negative return Spreads in June; the positive performance [with Spread of 1.73%] in 'Growth Stability' category was not enough to help the overall model. For June, the VBM generated the lowest return Spread and IC for the year at -1.68% and -0.03 respectively. The model delivered its best performance in March and July with positive Spreads and ICs across all six sub-components.

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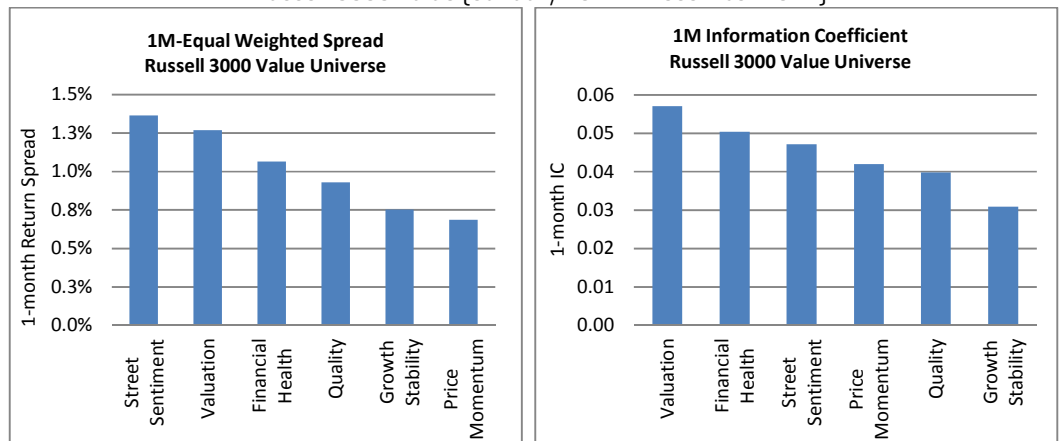
**Figure 7: Value Benchmark Model Subcomponents:
Historical 1M-Equal Weighted Spread and IC**
Russell 3000 Value [January 2014 – December 2014]



Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

Figure 8 shows the average 1-month Spread and average 1-month IC of each sub-component of the Value Benchmark Model over the Russell 3000 Value universe for 2014. All the six sub-components posted positive ICs and 1-month return Spreads. Street Sentiment, Valuation, and Financial Health were among the top three components in terms of average 1-month return Spread and IC, while Growth Stability, Price Momentum and Quality only delivered moderate performance based on the same metrics.

Figure 8: Value Benchmark Model: Historical 1M-Equal Weighted Spread and IC
Russell 3000 Value [January 2014 – December 2014]



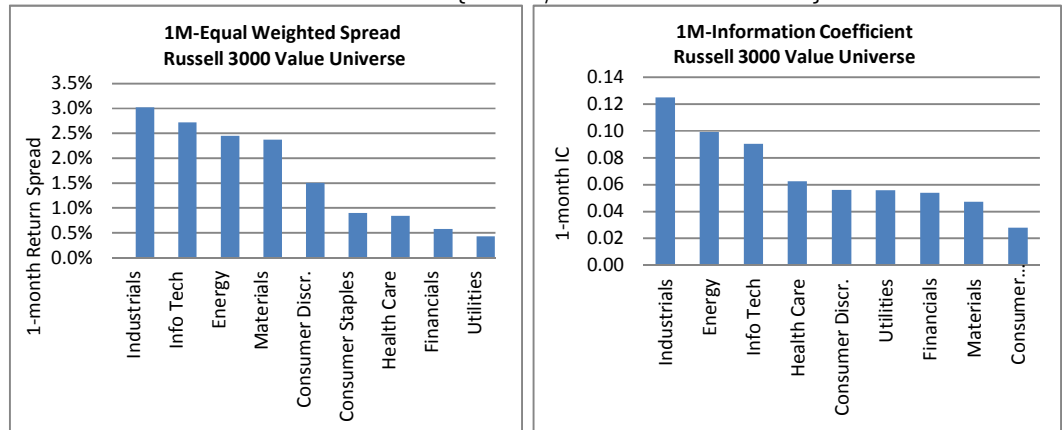
Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

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2.2 Historical Sector Performance

The 1-month average return Spreads and ICs of the model within nine of the ten GICS sectors are shown in Figure 9. Telecom is excluded because of limited coverage.

Figure 9: Value Benchmark Model Sector: Historical 1M-Equal Weighted Spread and IC
Russell 3000 Value [January 2014 – December 2014]



Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

The Value Benchmark Model produced positive 1-month average return Spreads and ICs in all nine sectors. Industrials experienced the strongest performance in terms of both 1-month Spread and 1-month IC. The average 1-month historical return Spread was weakest in Financials and Utilities.

2.3 Quintile Portfolio Characteristics and Portfolio Tilt Neutralization

Table 7 details the median market capitalization and median 60-month CAPM beta of quintile 1 [long] and quintile 5 [short] portfolios.

Table 7: Value Benchmark Model: Median Market Cap and 60-Month CAPM Beta
Quintile 1 and Quintile 5 – Russell 3000 Value Universe [January 2014–December 2014]

Median Measure	Quintile 1	Quintile 5
Market Cap (\$ Million)	1,891	656
60M CAPM Beta	1.18	1.25

Source: S&P Capital IQ Quantamental Research. Characteristics average of monthly model portfolios for 2014. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

The median market cap of the long portfolio [Q1] was \$1.89 billion compared to \$0.66 billion for the short portfolio [Q5], indicating a large cap tilt for the VBM's long portfolio. In addition, Q1 had a slightly lower 60-month CAPM beta [1.18] compared to Q5 [1.25]. Small cap value stocks [proxied by the Russell 2000 Value Index] trailed large cap values stocks [Russell 1000 Value] for the year. The Russell 1000 Value Index was up more than 13% while the Russell 2000 Value Index was up less than 5% for the year. So it is likely the VBM benefited from this positive large cap exposure. To account for this we show the performance of the VBM after we eliminate both beta and market biases in Table 8.

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**Table 8: Value Benchmark Model:
Original and Beta/Size Neutralized Historical Performance**
Russell 3000 Value Universe [January 2014 – December 2014]

Model	Average 1-Month Return Spread	Average 1-month IC
Original VBM	1.47%	0.064
Size/Beta Neutral VBM	1.24%	0.052

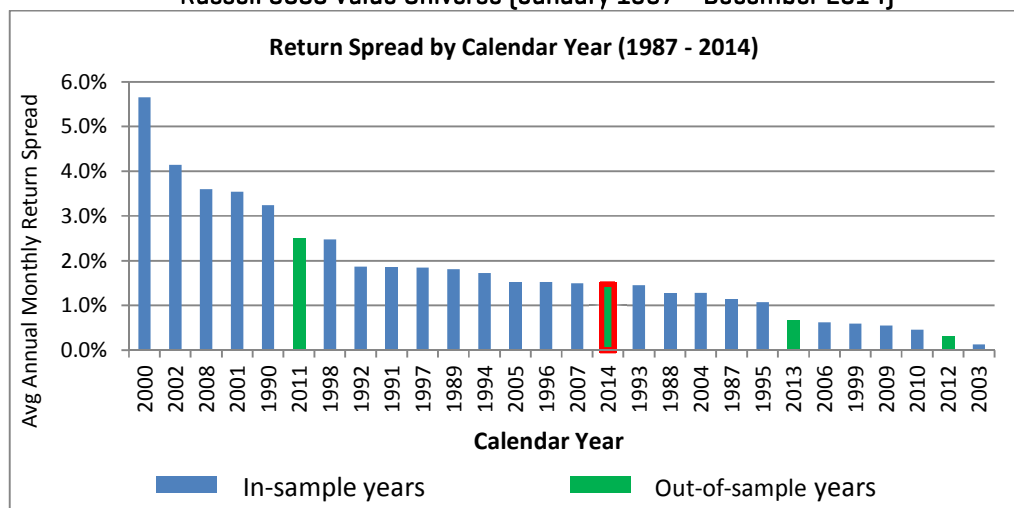
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The Value Benchmark Model still delivered an adjusted average monthly return Spread of 1.24% after applying beta and size neutralizations, although the Spread was slightly lower than that of the original model [1.47%]. We also observe deterioration in average 1-month IC from 0.064 to 0.052.

2.4 Historical Comparison

The VBM's in-sample [1987-2010: shown in blue bars] and out-of-sample [2011-2014: shown in green bars] return Spreads are displayed in Figure 10. The model generated a positive return Spread in every single year, even in 1999 [when value strategies struggled in the face of the tech bubble] and 2009 [a year where performance was driven by high beta and low price stocks]. The model's 2014 return Spread [green bar with red border] was in the 40th percentile of all 28 calendar years. The worst performance was in 2003 [junk rally] at 0.13%.

**Figure 10: Value Benchmark Model: Historical Year Average Monthly Return Spread:
Russell 3000 Value Universe [January 1987 – December 2014]**



Source: S&P Capital IQ Quantamental Research. Years sorted in descending order of performance. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

3 Quality Model

S&P Capital IQ's Quality Model seeks to extend the analysis of earnings quality beyond accruals and includes several measures of balance sheet efficiency/strength that have been shown to be

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good indicators of medium and long-term earnings quality. The Quality Model is comprised of five components: Growth Stability, Operating Efficiency, Complimentary Valuation, Financial Health and Earnings Quality. Similar to the Growth and Value Benchmark Models, specific treatments were applied for banks and non-bank financials. We detail the summary performance statistics for the model from January 1987 to December 2014 in Table 9.

Table 9: Summary Historical Performance Statistics for Quality Model
Russell 3000 (January 1987 – December 2014)

	Q1	Q2	Q3	Q4	Q5	Long-Short Return Spread
Average Monthly Absolute Return	1.39%***	1.11%	0.79%	0.43%	-0.25%	1.64%***
Annualized Absolute Return	17.99%	14.21%	9.93%	5.30%	-2.98%	21.56%
Annualized Information Ratio	1.02	0.42	-0.95	-2.49	-2.42	2.20

Information Coefficient Summary	
Average 1-month IC	0.056***
1-month IC information Ratio	0.90
1-month IC Hit Rate	82%***

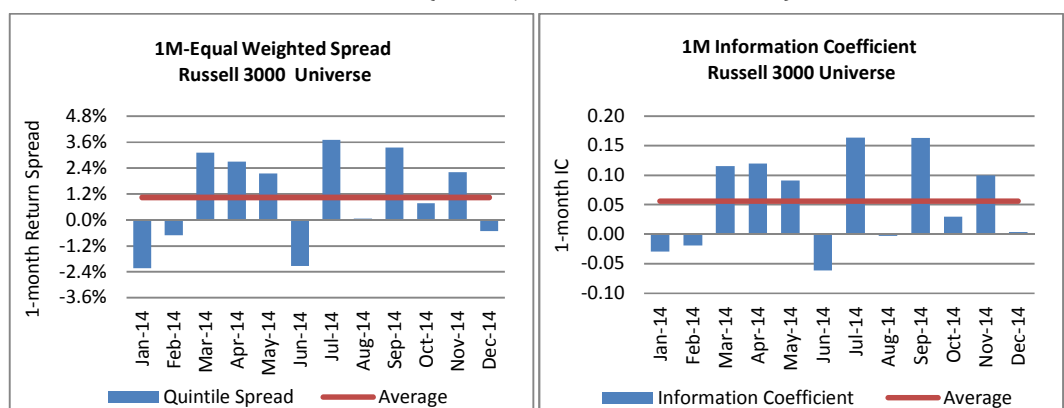
*** 1% level of significance

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3.1 Model Performance in 2014

The Quality Model delivered a strong performance in 2014 (Figure 11) with an average 1-month equal-weighted return Spread and 1-month Information Coefficient of 1.04% and 0.056 respectively.

Figure 11: Quality Model: Historical 1M-Equal Weighted Spread & Information Coefficient
Russell 3000 (January 2014 – December 2014)



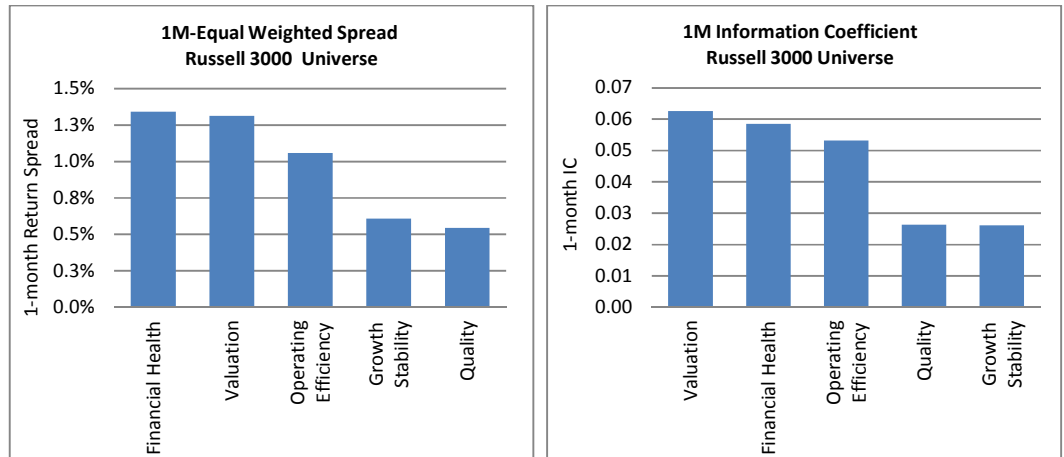
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Similar to GBM and VBM, the model experienced large draw down in January [-2.23%] given the overall loss for all major U.S. indices in January of 2014; all five sub-components that make up the

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model had negative return Spreads during that month. The model had the second worst performing month in June [-2.12%] with negative Spreads and ICs in all sub-components (except 'Growth Stability'). July was the best performing month with return Spread and IC of 3.72% and 0.163 respectively – the model posted positive Spreads and ICs across all five sub-components.

Figure 12: Quality Model: Historical 1M-Equal Weighted Spread & Information Coefficient
Russell 3000 (January 2014 – December 2014)



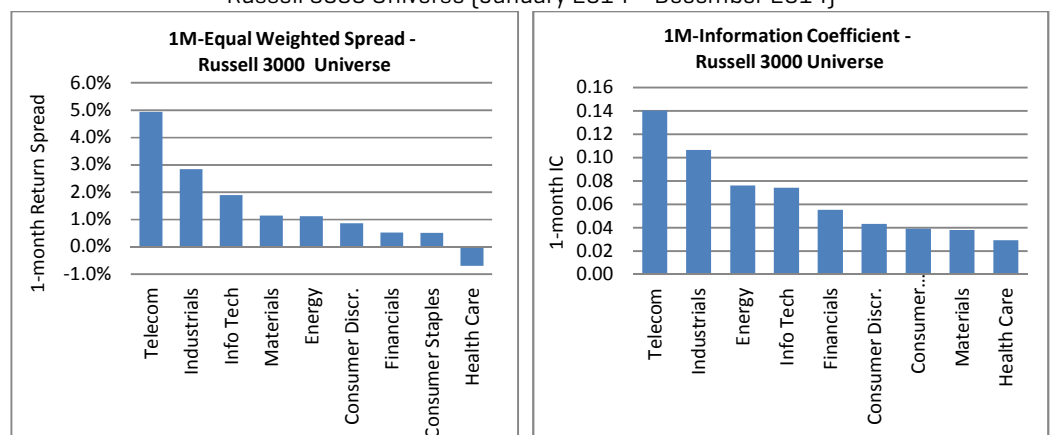
Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

Figure 12 shows the average 1-month return Spread and average IC for each subcomponent of the Quality model over the Russell 3000 universe for 2014. Valuation and Financial Health were the top two performing components based upon 1-month return Spread and IC.

3.2 Historical Sector Performance

The average historical 1-month return Spread and IC of the Quality model within nine of the ten GICS sectors is detailed in Figure 13 (Utilities are excluded because of limited coverage). Eight of nine (nine of nine) sectors posted positive historical 1-month average Spreads [IC] in 2014. Telecom and Industrials were the top two performing sectors while Health Care was the weakest.

Figure 13: Quality Model: Historical Sector 1-M Average Return Spread and IC
Russell 3000 Universe (January 2014 – December 2014)



Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

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3.3 Quintile Portfolio Characteristics and Portfolio Tilt Neutralization

The QM's median market capitalization and median 60-month CAPM Beta of the top (quintile 1) and bottom (quintile 5) portfolios are shown in Table 10. As expected, the long portfolio (quintile 1) was tilted towards large cap names, as these names tend to provide more stable earnings and dividend streams compared to small cap stocks. We also observe that the Q1 portfolio had lower beta compared to Q5. Large cap stocks (proxied by the Russell 1000 index) outperformed small cap stocks (proxied by the Russell 2000 index) by almost 10% in 2014, so it is reasonable to expect the Quality Model may have benefited from this positive large cap exposure.

Table 10: Quality Model: Median Market Cap and 60-Month CAPM Beta
Quintile 1 and Quintile 5 – Russell 3000 Universe (January 2014 – December 2014)

Median Measure	Quintile 1	Quintile 5
Market Cap (\$Million)	2245	758
60M CAPM Beta	1.15	1.27

Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

We show the performance of the model after we eliminate both beta and market cap biases in Table 11. The Quality Model still delivered an average historical monthly Spread of 0.71% after applying the beta and size neutralization, although the Spread was 33bps lower than that of the original model (1.04%). The average 1-month IC also dropped by 25% (from 0.056 to 0.042).

Table 11: Quality Model: Original and Beta/Size Neutralized Historical Performance
Russell 3000 Universe (January 2014 – December 2014)

Model	Average 1-Month Return Spread	Average 1-month IC
Original QM	1.04%	0.056
Size/Beta Neutral QM	0.71%	0.042

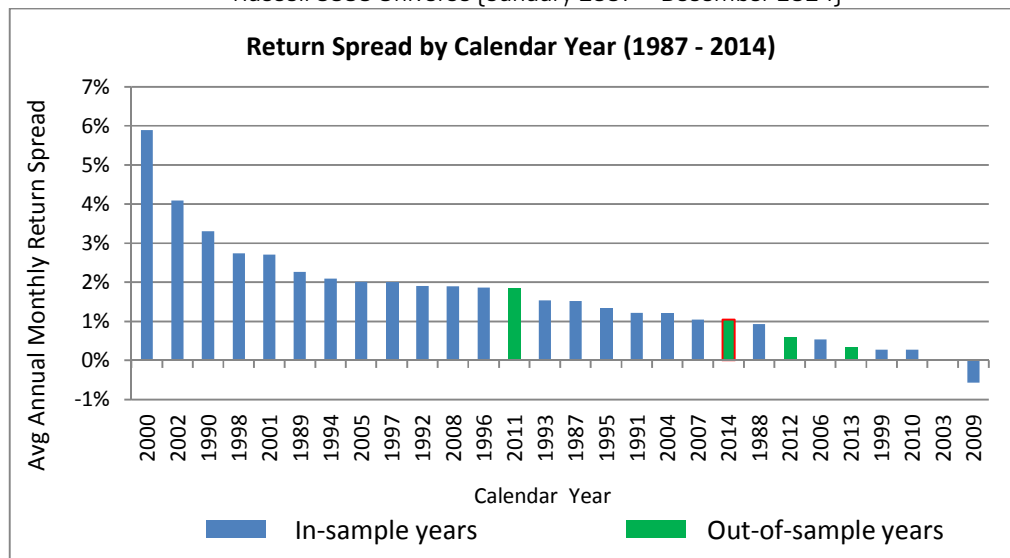
Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

3.4 Historical Comparison

We display the model's average 1-month return Spread by calendar year in Figure 14. 2014's long short return ranks in the 30th percentile of calendar year since 1987. The best calendar long-short return Spread was in 2000 (5.89%) when value and high quality stocks rallied after the collapse of the tech bubble. The worst return for QM was in 2009 (-0.57%) when high beta and low price stocks out-performed their counterparts.

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Figure 14: Quality Model: Historical Year Average Monthly Return Spread
Russell 3000 Universe [January 1987 – December 2014]



Source: S&P Capital IQ Quantamental Research. Years sorted in descending order of performance. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

4 Price Momentum Model

The Price Momentum Model was constructed to model relative strength scores based on trailing price momentum and trading volume data. The model is made up of Short-term and Long-term components: the short term component uses a look-back window of typically 1 to 3 months for factor construction, while the longer term component is based on a window of 3 to 12 months. We detail the summary performance statistics for the model in Table 12.

Table 12: Summary Historical Performance Statistics for Price Momentum Model
Russell 3000 [January 1987 – December 2014]

	Q1	Q2	Q3	Q4	Q5	Long-Short Return Spread
Average Absolute Monthly Return	1.53%***	1.16%	0.78%	0.27%	-0.47%	2.01%***
Annualized Absolute Return	6.58%	1.94%	-2.64%	-8.39%	-16.32%	26.92%
Annualized Information Ratio	1.02	0.53	-1.15	-2.63	-2.72	2.35

Information Coefficient Summary	
Average 1-Month IC	0.069***
1-month IC information Ratio	0.81
1-month IC Hit Rate	83%***

*** 1% level of significance

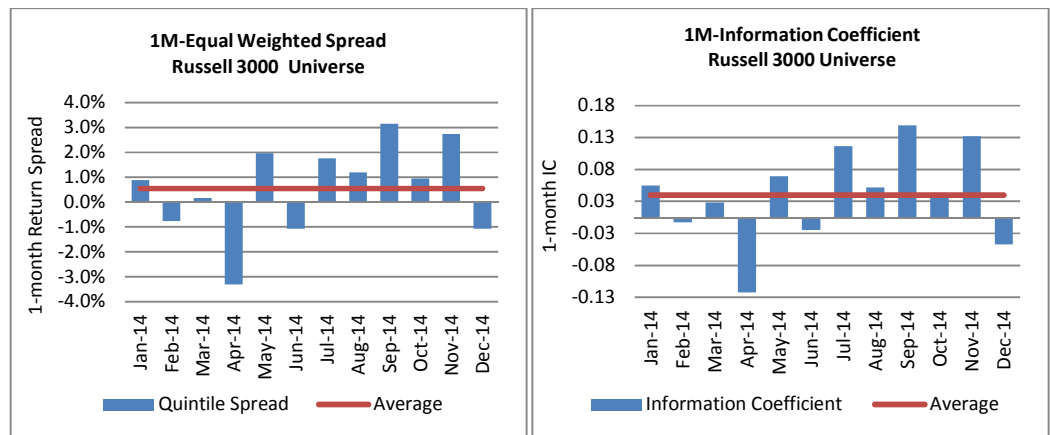
Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

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4.1 Historical Model Performance in 2014

Figure 15 shows the 1-month average equal-weighted return Spread for the Price Momentum model [Russell 3000 universe] for 2014. The average monthly historical Spread and IC was 0.55% and 0.035 respectively for the model through 2014.

Figure 15: Price Momentum Model: Historical 1M-Equal Weighted Return Spread and IC
Russell 3000 (January 2014 – December 2014)



Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

Table 13 and Figure 16 show the average 1-month Spread and IC for both the Short and Long Term components of the Price Momentum Model in the Russell 3000 for 2014. April was the worst performing month this year – as it was a poor month for strategies based on momentum, size, and volatility in general. April 2014 was a turning point for momentum investing since momentum stocks had recently fallen out of favor. Therefore April 2014 was a month characterized by outperformance for valuation, quality, and capital efficiency strategies, as the performance of our other models demonstrate.

The long-term component of the momentum model – which is based more on following strategies rather than reversal, was more effective this year, with about twice the return Spread and IC of the short-term component.

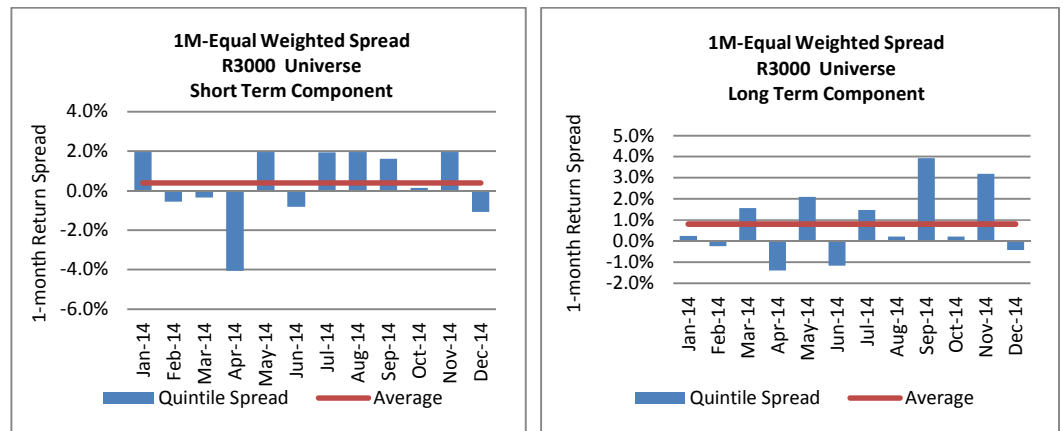
Table 13: Summary Historical Performance Statistics for Price Momentum Model
Russell 3000 (January 2014 – December 2014)

Component	Average 1-Month Return Spread	Average 1-Month IC
Short-Term Component	0.39%	0.022
Long-Term Component	0.81%	0.037

Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

S&P CAPITAL IQ MODEL PERFORMANCE REVIEW FOR 2014

Figure 16: Price Momentum Model: Historical 1M-Equal Weighted Spread
Russell 3000 (January 2014 – December 2014)



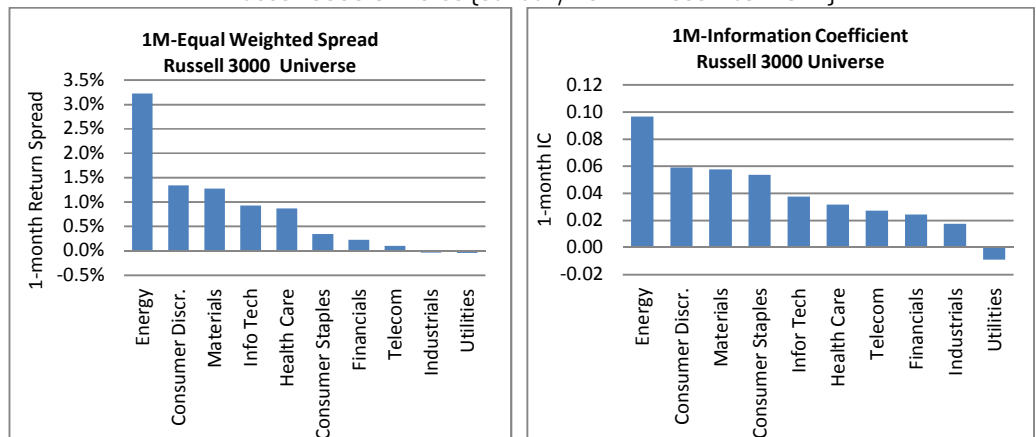
Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

4.2 Historical Sector Performance

Figure 17 breaks out the historical return Spread and Information Coefficient of the model for the ten GICS sectors. The Price Momentum Model showed positive 1-month average Spreads in eight of the ten sectors, with only Industrials and Utilities underperforming. The average IC score, which measures the effectiveness of the model as a stock picking indicator across a whole sector rather than the extremes, was positive in all sectors all except Utilities.

Figure 17: Price Momentum Model: Sector Historical 1-M Average Return Spread and IC

Russell 3000 Universe (January 2014 – December 2014)



Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

4.3 Quintile Portfolio Characteristics and Portfolio Tilt Neutralization

Table 14 reports the median market capitalization and 60-month CAPM Beta of the top and bottom quintile portfolios. Similar to the other models, the Price Momentum model had a large cap bias. The median market cap of the long portfolio (Quintile 1) was \$2422 million compared

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with \$954 million for the short portfolio. The median beta of the long portfolio [1.13] was slightly lower compared to that for short portfolios [1.24].

Table 14: Price Momentum Model: Median Market Cap and 60-Month CAPM Beta
Quintile 1 and Quintile 5 – Russell 3000 Universe [January 2014 – December 2014]

Median Measure	Quintile 1	Quintile 5
Market Cap (\$ Million)	2422	954
60M CAPM Beta	1.13	1.24

Source: S&P Capital IQ Quantamental Research. Characteristics average of monthly model portfolios for 2014. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

Large cap growth stocks [proxied by the Russell 1000 Index] outperformed their small cap counterparts [proxied by the Russell 2000 Index] by 8.3% through the year 2014, so it is reasonable to attribute some of the outperformance of the Price Momentum Model [PMM] to the large cap exposure. To account for this, we backtest the PMM after accounting for size and beta exposure, the performance is presented in Table 15.

Table 15: Price Momentum Model: Original and Beta/Size Neutralized
Historical Performance

Russell 3000 Universe [January 2014 – December 2014]

Model	Average 1-Month Return Spread	Average 1-month IC
Original PM	0.55%	0.035
Size/Beta Neutral PM	0.43%	0.025

Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

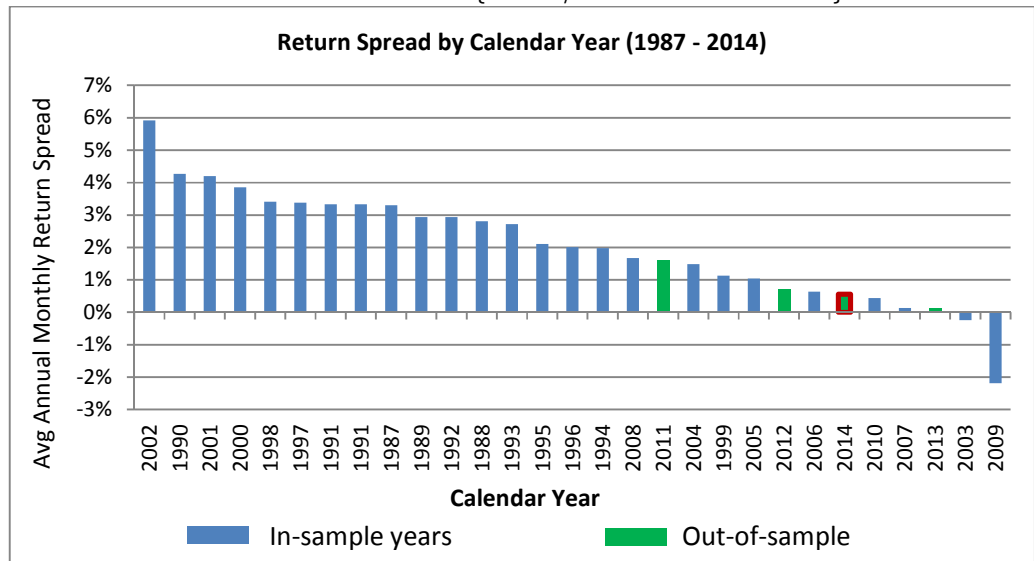
After neutralizing for size and beta, the performance of the PMM was slightly lower, with a reduction in average historical monthly Spread of 8bps to 0.43%, and a reduction in IC from 0.035 to 0.025. This signifies that the model benefitted marginally from the outperformance of large caps.

4.4 Historical Comparison

The model's 2014 historical return Spread of 0.55% [green bar with red border] was lower relative to past in-sample years [blue bars 1987-2010] and out-of-sample years [green bars 2011-2014] performance [Figure 18]. The historical return Spread for the model in the in-sample period was 2.22% and 0.75% for the out-of-sample period [2011-2014]. The worst performing years historically were 2003 and 2009 when momentum as a theme failed.

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Figure 18: Price Momentum Mode: Historical Year Average Monthly Quintile Spread:
Russell 3000 Universe [January 1987 – December 2014]



Source: S&P Capital IQ Quantamental Research. Years sorted in descending order of performance. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

5 Model Stability

Model stability in 2014 as measured by the autocorrelation of monthly ranks is listed in Table 16. The relatively high autocorrelation observed for GBM, VBM and QM suggests that there is limited turnover in the quintile portfolios formed based on these models. High autocorrelation is a favorable characteristic for the reduction of portfolio turnover trading costs. The correlation numbers are in line with what were observed during model backtests.

Table 16: Model 1-Month Rank Autocorrelation
[January 2014 – December 2014]

Model	1-month Rank Autocorrelation
Growth Benchmark Model	0.91
Value Benchmark Model	0.93
Quality Model	0.89
Price Momentum Model	0.57

Source: S&P Capital IQ Quantamental Research. For all exhibits, all returns and indices are unmanaged, statistical composites and their returns do not include payment of any sales charges or fees an investor would pay to purchase the securities they represent. Such costs would lower performance. It is not possible to invest directly in an index. Past performance is not a guarantee of future results.

6 Conclusions

In this research report, we summarized the performance of S&P Capital IQ's four stock selection models (Value Benchmark, Growth Benchmark, Quality, and Price Momentum) for 2014. All four models delivered positive historical return Spreads in 2014, with the Value Benchmark Model posting the strongest results. Our analysis shows that the models had some exposure to large cap and low beta stocks in 2014; these exposures benefit the models' overall performance over that period. We also found that all four models post positive performance after we eliminate market cap and beta exposures.

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Temilade Oyeniyi and Vivian Ning, January 2012, "S&P Capital IQ Stock Selection Model Review, Understanding the Drivers of Performance in 2011", S&P Capital IQ Quantitative Research

Temilade Oyeniyi and Vivian Ning, January 2013, "Stock Selection Model Performance Review, Assessing the Drivers of Performance in 2012", S&P Capital IQ Quantamental Research

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Our Recent Research

January 2015: [Global Pension Plans: Are Fully Funded Plans a Relic of the Past?](#)

In this brief we leverage S&P Capital IQ's extensive collection of pension data to examine:

- Companies with the strongest and weakest pension funding status globally.
- Global trends in pension funding and accounting.
- Companies with the most aggressive versus conservative pension accounting assumptions.
- Underfunded plans with the least and most three-year improvement in funding.

January 2015: [Profitability: Growth-Like Strategy, Value-Like Returns Profiting from Companies with Large Economic Moats](#)

Value-based strategies have been the favorite weapons in many investors' arsenals, historically yielding large returns and consistently outperforming. Most value investors focus on the price side of the equation – i.e., buying assets that are priced below their intrinsic values. Yet, there's another dimension to the value equation that has been complementary to value and just as critical in generating excess returns. Enter profitability. Profitability has historically worked as an investment strategy because instead of focusing on the cheapness of an asset it focuses on the productiveness of an asset – i.e., its ability to generate earnings for the investor. Our results from January 1996 to August 2014 show: The S&P 500® continues to be the preeminent regional performer in terms of both financial results and price appreciation Risk and Return: Tracks the dynamics of equity market returns and volatility.

- **Profitability-based strategies have historically produced excess returns on par with those generated by value-based strategies** and have historically produced higher excess returns than those generated by quality and price momentum strategies.
- Profitability-based strategies **have historically produced excess returns even after controlling for quality-, value- and price momentum-based strategies.**
- Profitability-based strategies **have historically consistently produced excess returns across different regions, time periods, and market capitalization categories.**
- **Highly profitable firms have historically consistently shown above average growth** with two-year top- and bottom-line growth rates that are 10% and 31% higher, respectively, than those for least profitable firms.
- Profitability measures that are cleaner (i.e. higher up in the income statement such as gross profit) **have historically shown higher excess returns and lower volatility** than measures that are lower in the income statement [e.g., net profit].
- **Gross profitability ratio has historically been 2.07x, 2.22x and 3.12x times more persistent than quality, value and momentum, respectively, after 5 years.**

November 2014: [Equity Market Pulse – Quarterly Equity Market Insights Issue 2](#)

Driven by S&P Capital IQ's™ proprietary data and analytics, **Equity Market Pulse** provides professional investors with insights into global equity market fundamentals and performance at a glance. Spanning developed and emerging markets in the Americas, Europe, and Asia, it provides perspective on valuations, operating efficiency, and investment strategy effectiveness.

- The **S&P 500® continues to be the preeminent regional performer** in terms of both financial results and price appreciation Risk and Return: Tracks the dynamics of equity market returns and volatility.
- **Investor preference for developed markets continues**, as developed markets show rising P/E multiples versus the emerging markets on much stronger financial performance.

S&P CAPITAL IQ MODEL PERFORMANCE REVIEW FOR 2014

- **Emerging markets appear cheap** on a valuation-to-projected-growth basis, with forward P/E to earnings growth (PEG) ratios of less than half those of the developed market average.

October 2014: [Lenders Lead, Owners Follow - The Relationship between Credit Indicators and Equity Returns](#)

This paper demonstrates a strong link exists between credit events and equity returns, suggesting a potential investment strategy. Whereas previous academic work focused on ratings changes within the U.S., this analysis takes a global perspective and includes the post-financial crisis period. Shareholders should note that even in a benign credit environment Standard & Poor's Ratings Services ["S&P Ratings Services"] downgraded 68 U.S. speculative grade companies in the second quarter of 2014, and forecasts the rate of speculative grade defaults to increase next year to 2.2% from 1.6% in 2014. Year to date, there have been 303 instances where credit default swap spreads have widened by more than 50 basis points.

August 2014: [Equity Market Pulse – Quarterly Equity Market Insights Issue 1](#)

Equity Market Pulse provides professional investors with insights into global equity market fundamentals and performance at a glance. Spanning developed and emerging markets in the Americas, Europe, and Asia, it provides perspective on valuations, operating efficiency, and investment strategy effectiveness. The content of the Equity Market Pulse is driven by S&P Capital IQ's fundamental data and analytics including S&P Capital IQ Estimates, Global Point-in-Time Fundamentals, and the Alpha Factor Library. The analysis is broken into four themes:

- Valuation: Analysis of valuation multiples coupled with consensus outlook for earnings and revenue growth.
- Operating Performance: Trends in operating performance with return on equity deconstructed into: net profit margins, asset turnover, and leverage
- Risk and Return: Tracks the dynamics of equity market returns and volatility.

July 2014: [Factor Insight: Reducing the Downside of a Trend Following Strategy](#)

In this report, we review an approach that reduces the downside risk of a trend following strategy. This new signal first separates a stock's return into its systematic and stock-specific components, and then picks stocks solely on the latter. We compare the performance of this new signal (alpha momentum) to a typical trend following strategy (total momentum) and report the following:

- Globally, alpha momentum produces higher risk-adjusted returns in five developed market countries and a global universe. In the Russell 3000, alpha momentum's annualized long-short information ratio is twice that of total momentum (Jan 1988 – April 2014).

May 2014: [Introducing S&P Capital IQ's Fundamental China A-Share Equity Risk Model](#)

Factor risk models play an important role in equity portfolio management. Portfolio managers depend upon factor risk models to obtain portfolio risk prediction and risk attribution against a group of largely orthogonal factors each with meaningful econometric explanations. S&P Capital IQ is dedicated to providing a broad set of high-quality models and products to the global asset management community. Since 2010, we have released a series of single country risk models as well as global and regional equity risk models. We are now releasing single country risk model covering China A-Shares equities,

April 2014: [Riding the Coattails of Activist Investors Yields Short and Long Term Outperformance](#)

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On August 13, 2013, Apple's stock price rose 4.75% on high volume after Carl Icahn, a renowned activist investor, tweeted that his firm had accumulated a large position in the company. In the ensuing 6 months, the stock rose an additional 9.33% as Icahn demanded that the company add another \$50 billion to its existing stock buyback plan. Icahn backed off from this demand on February 10, 2014, but not before Apple's stock price had risen to \$528.99 from \$461.88 where it was before he embarked on the campaign. By then, the company had already aggressively repurchased its stock, including \$14 billion in a two-week stretch. As high-profiled campaigns have occurred with greater frequency and resulted in more successes, the AUM for investor activist funds has tripled to \$95 billion in 2013, 3 times the amount in 2008.

March 2014: [Insights from Academic Literature: Corporate Character, Trading Insights, & New Data Sources](#)

As part of our research process, we make a concerted effort to stay abreast of interesting white papers. Academic research papers are a rich source for new ideas and fine tuning of areas for future work. Often they provide a launch pad for debate and exploration for our team. Our readers agree, as we regularly receive positive feedback on our academic research highlights.

In this piece we have assembled a number of interesting articles that we believe will be of broad interest to our clients, and all investment professionals – Corporate Character, Trading Insights & New Data Sources. For each article we provide a link to the article, the abstract, and a brief discussion of the article highlights and how it will be useful to fellow practitioners. It is our hope that these papers help you generate differentiated thinking, and to better serve your clients.

February 2014: [Obtaining an Edge in Emerging Markets](#)

Following the introduction of our global stock selection models for developed markets [DM] in August 2013, we launch our stock selection model for emerging markets [EM] and report the following:

- The Model generated a top quintile average monthly excess return of 0.90% within the S&P BMI Emerging Market Index [Jan 2002 – Sept 2013].
- The Model's performance is robust across regions and sectors.
- We do not observe performance degradation within mid to large cap stocks.
- Model's top quintile average monthly excess return is identical in growth and value environments [0.80%], and positive in periods of elevated volatility [0.53%].
- A simulated portfolio generated an annualized excess return of 10.5% after accounting for transactions costs.

February 2014: [U.S Stock Selection Model Performance Review](#)

The performance of S&P Capital IQ's four U.S. stock selection models since their launch in January 2011 has been strong, and 2013 was no exception. Key differentiators, such as distinct formulations for large and small cap stocks, bank-specific factors, sector-neutrality to target stock-specific alpha, and the combination of sub-components representing different investment themes have enabled the models to outperform across disparate market environment

January 2014: [Buying Outperformance: Do share repurchase announcements lead to higher returns?](#)

We examine the returns surrounding buyback announcements to test whether, and when, buyback programs signal subsequent outperformance and shareholder value. We find:

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- Buyback announcements precede excess returns in the US. Stocks on average outperformed the equally weighted Russell 3000 by 0.60% over one month, and by 1.38% over one year periods following buyback announcements.
- Outperformance is greatest among small caps or larger magnitude buybacks as a % of shares outstanding.
- Reported insider trading and buyback announcement signals are complementary.
- In Europe, some post-buyback outperformance over 12 months, but no significant excess return after one month.

October 2013: [Informative Insider Trading – The Hidden Profits in Corporate Insider Filings](#)

In this report, we investigate the impact of the public disclosure of insider trading on equity prices, using both an event study framework and a portfolio formation approach. Leveraging S&P Capital IQ's Ownership database, we explore several practical methods of identifying "informative" insider trades, and how to construct a portfolio of stocks using recent "informed" insider transactions. We document the following results:

- Consistent with existing literature, insider trades are predictive of future stock returns.
- Outside investors can earn economically significant excess returns by trading on "informative" insider trading signals.
- Mimicking the net purchase actions of CEOs yielded an excess return of 1.27% over the next one week.
- A trading strategy based on the three characteristics: opportunistic, intensive and directional change, yielded 0.36% weekly excess returns after transaction costs.

September 2013: [Beggar Thy Neighbor – Research Brief: Exploring Pension Plans](#)

Pension underfunding is a worldwide problem. There has been an unending wave of news stories about cities and states across the United States suffering from defined benefit pension funding shortfalls, but these issues extend far beyond the public sector and beyond the United States as well.

In this brief we leverage S&P Capital IQ datasets to examine:

- Companies with the strongest and weakest pension funding status globally.
- Companies with the most optimistic return and discount rate assumptions globally.
- The relationship between projected and realized pension portfolio returns.
- The historical global trends in funding status, portfolio returns, and discount rates.

August 2013: [Introducing S&P Capital IQ Global Stock Selection Models for Developed Markets: The Foundations of Outperformance](#)

In this report, we explore the efficacy of different stock selection strategies globally and use this information to develop a suite of robust global stock selection models targeting Canada and the developed markets of Europe and Asia Pacific. Our global models were developed using S&P Capital IQ's industry leading Global Point-in-Time data, as well as the Alpha Factor Library, our web-based global factor research platform. We find that each of our Global Stock Selection Models for Developed Markets yield significant long-short spread returns and information coefficients at the 1% level. This performance is also robust providing similar statistical significance after controlling for Market Cap and Beta exposures.

July 2013: [Inspirational Papers on Innovative Topics: Asset Allocation, Insider Trading & Event Studies](#)

Inspiration drives innovation. The writings of Plutarch inspired Shakespeare, Galapagos finches inspired Darwin, and the German Autobahn inspired Eisenhower, but what inspires investment

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researchers to develop the next innovations for investors? When we get a new investment idea, we seek out literature on that topic to inspire us to bring the idea to fruition. This literature can help to further develop our own thoughts, polish up and expand on our priors, and avoid the pitfalls experienced by earlier researchers. Inspiration from academia enhances our ability to provide innovative solutions for our clients.

June 2013: [Supply Chain Interactions Part 2: Companies – Connected Company Returns Examined as Event Signals](#)

June 2013: [Behind the Asset Growth Anomaly – Over-promising but Under-delivering](#)

April 2013: [Complicated Firms Made Easy – Using Industry Pure-Plays to Forecast Conglomerate Returns](#)

March 2013: [Risk Models That Work When You Need Them – Short Term Risk Model Enhancements](#)

March 2013: [Follow the Smart Money – Riding the Coattails of Activist Investors](#)

February 2013: [Stock Selection Model Performance Review: Assessing the Drivers of Performance in 2012](#)

January 2013: [Research Brief: Exploiting the January Effect Examining Variations in Trend Following Strategies](#)

December 2012: [Do CEO and CFO Departures Matter? – The Signal Content of CEO and CFO Turnover](#)

November 2012: [11 Industries, 70 Alpha Signals –The Value of Industry-Specific Metrics](#)

October 2012: [Introducing S&P Capital IQ's Fundamental Canada Equity Risk Models](#)

September 2012: [Factor Insight: Earnings Announcement Return – Is A Return Based Surprise Superior to an Earnings Based Surprise?](#)

August 2012: [Supply Chain Interactions Part 1: Industries Profiting from Lead-Lag Industry Relationships](#)

July 2012: [Releasing S&P Capital IQ's Regional and Updated Global & US Equity Risk Models](#)

June 2012: [Riding Industry Momentum – Enhancing the Residual Reversal Factor](#)

May 2012: [The Oil & Gas Industry – Drilling for Alpha Using Global Point-in-Time Industry Data](#)

May 2012: [Case Study: S&P Capital IQ – The Platform for Investment Decisions](#)

March 2012: [Exploring Alpha from the Securities Lending Market – New Alpha Stemming from Improved Data](#)

January 2012: [S&P Capital IQ Stock Selection Model Review – Understanding the Drivers of Performance in 2011](#)

January 2012: [Intelligent Estimates – A Superior Model of Earnings Surprise](#)

December 2011: [Factor Insight – Residual Reversal](#)

November 2011: [Research Brief: Return Correlation and Dispersion – All or Nothing](#)

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October 2011: [The Banking Industry](#)

September 2011: [Methods in Dynamic Weighting](#)

September 2011: [Research Brief: Return Correlation and Dispersion](#)

July 2011: [Research Brief – A Topical Digest of Investment Strategy Insights](#)

June 2011: [A Retail Industry Strategy: Does Industry Specific Data tell a different story?](#)

May 2011: [Introducing S&P Capital IQ's Global Fundamental Equity Risk Models](#)

May 2011: [Topical Papers That Caught Our Interest](#)

April 2011: [Can Dividend Policy Changes Yield Alpha?](#)

April 2011: [CQA Spring 2011 Conference Notes](#)

March 2011: [How Much Alpha is in Preliminary Data?](#)

February 2011: [Industry Insights – Biotechnology: FDA Approval Catalyst Strategy](#)

January 2011: [US Stock Selection Models Introduction](#)

January 2011: [Variations on Minimum Variance](#)

January 2011: [Interesting and Influential Papers We Read in 2010](#)

November 2010: [Is your Bank Under Stress? Introducing our Dynamic Bank Model](#)

October 2010: [Getting the Most from Point-in-Time Data](#)

October 2010: [Another Brick in the Wall: The Historic Failure of Price Momentum](#)

July 2010: [Introducing S&P Capital IQ's Fundamental US Equity Risk Model](#)

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