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Do CEO and CFO Departures Matter?

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The Signal Content of CEO and CFO Turnover

In October of this year, the US equity market was caught off guard with the seemingly sudden departure of Citibank CEO Vikram Pandit. While CEO departures are almost always headline news, CFO departures are not often accompanied with such recognition. We explore the impact of CEO and CFO departures and find consistent results in the US and the Developed World. CEO and CFO departures often signify a turning point in both the company's stock performance and the company's operating metrics.

On average, stocks of companies that replace their CEO's outperform the market by a statistically and economically significant, 2.1% and 5.3% in the following year in the US and the developed world [Table 1 & Table 2], respectively. Why do stocks of companies outperform following a CEO change? One might suspect that companies that experience CEO or CFO departures have underperformed and would as a result, be valued cheaply. We explore whether subsequent outperformance can be attributed to the company moving from a 'cheap' valuation to 'fair' value.

An additional hypothesis explored is whether the outperformance is merely mean-reversion or a snap-back from recent poor performance. We then investigate whether the new CEO is able to affect meaningful change.

- Companies experience positive excess returns on average after executive turnovers, both in the U.S and other developed markets.
- In the U.S:
 - 12-month returns before CEO departure are negative on average, but the subsequent outperformance is not due to mean reversion.
 - Companies see improvement in ROE and ROA in the first three years under new CEO's.
 - Prior to 2005, new CEO's seem to have been more capable of improving companies' operating performance than after 2005.
- In developed markets:
 - As in the U.S, CEO and CFO turnovers are associated with significant excess returns [5.34% and 4.14%, respectively].
 - Controlling for industry or country, ROE and ROA continue to improve in the second and third years following CEO turnovers.
- An equal-weighted portfolio comprised of US companies that have experienced CEO turnover between the past 6 and 18 months generates positive monthly excess return but the return is not significant. The return to the same portfolio produces statistically significant returns of 56 bps/month in the developed world.

1 Excess Returns Preceding and Following Executive Departures

We explore the pre and post-announcement stock price performance for both CEO and CFO departures. In this section, and in all forward sections, we compute industry adjusted excess returns controlling for both the company's industry and the stock's Beta. We only include CEO's and CFO's who are in position for longer than 12 months in order to remove the impact of transition executives.

In examining the stock performance in the one year prior to a CEO and CFO departure, we see that on average the performance is weak. The one year industry adjusted excess return prior to a CEO and CFO's departure is -16.55% and -11.04% respectively in the US [Table 1]. We see similar poor results when looking at the developed world with -5.43% and -3.91% excess return for CEO's and CFO's respectively [Table 2]. The percentage of companies outperforming is displayed as the hit rate, showing that a significant number of company's stocks price performance is also weak.

The average industry adjusted stock price performance improves in the following 12 months and persists through at least 36-months. These results are statistically significant and consistent for both CEO's and CFO's in the US and the developed world [Table 1 & Table 2].

Table 1: Industry and Beta Adjusted Returns Pre-Post CEO/CFO Departure
Russell 3000 Index, 1/1987-7/2011

US CEO	Adjusted Return 12Mon Prior	Adjusted Return 12Mon After	Adjusted Return 24Mon After	Adjusted Return 36Mon After
Average	-16.55%	2.10%	2.43%	6.39%
Return T-stat	-16.87	2.50	1.88	3.50
Hit Rate	35.65%	50.04%	49.27%	49.13%
Hit P-value	0.00%	1.26%	0.93%	0.91%

US CFO	Adjusted Return 12Mon Prior	Adjusted Return 12Mon After	Adjusted Return 24Mon After	Adjusted Return 36Mon After
Average	-11.04%	1.97%	3.33%	5.22%
Return T-stat	-13.26	2.75	2.74	3.19
Hit Rate	38.69%	49.78%	48.74%	48.81%
Hit P-value	0.00%	1.08%	0.30%	0.44%

Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

Table 2: Industry and Beta Adjusted Returns Pre-Post CEO/CFO Departure

BMI Developed Markets [ex US], 1/1989-7/2011

DEV CEO	Adjusted Return 12Mon Prior	Adjusted Return 12Mon After	Adjusted Return 24Mon After	Adjusted Return 36Mon After
Average	-5.43%	5.34%	12.95%	23.05%
Return T-stat	-6.54	6.25	8.50	10.51
Hit Rate	41.24%	51.55%	53.47%	53.48%
Hit P-value	0.00%	0.38%	0.00%	0.01%

DEV CFO	Adjusted Return 12Mon Prior	Adjusted Return 12Mon After	Adjusted Return 24Mon After	Adjusted Return 36Mon After
Average	-3.91%	4.14%	8.92%	16.03%
Return T-stat	-3.85	4.13	5.14	6.43
Hit Rate	42.64%	50.97%	52.08%	50.89%
Hit P-value	0.00%	1.17%	0.38%	1.61%

Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

2 Mean Reversion and Value Realization

The question naturally arises: Is the performance turn-around shown in Section 1, merely a result of mean-reversion? In other words, after a period of stock price weakness, is the subsequent outperformance just a snap-back? We explore this question by using the Jegadeesh test for mean reversion [Table 3]. Specifically, we regress the performance after the departure on the performance prior and observe the t-stats:

$$r_{t+k} - \mu = \beta(k) \sum_{j=1}^k (r_{t-j} - \mu) + \varepsilon_t$$

Where r_{t+k} is k-month return following the turnover, μ is the unconditional mean, which is 0 for excess returns, and k is the holding period.

Table 3: Mean Reversion Test for US CEO and CFO Turnovers, 1987-2011

$$r_{t+k} - \mu = \beta(k) \sum_{j=1}^k (r_{t-j} - \mu) + \varepsilon_t$$

Return Horizon [k-month]	CEO Turnover		CFO Turnover	
	β	β T-stat	β	β T-stat
3-Month	0.028	1.88	-0.013	-0.96
6-Month	0.041	2.87	0.017	1.29
9-Month	-0.009	-0.62	-0.016	-1.16
12-Month	-0.022	-1.73	-0.022	-1.86
24-Month	-0.003	-0.30	-0.022	-2.11
36-Month	-0.013	-1.38	-0.024	-2.80

Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

For 3 and 6-month time periods around CEO turnovers, the regression coefficients are positive and are significant, indicating *continuation* rather than reversal. The t-stats (and coefficients) shown in Table 3 are negative 9 months and beyond, indicating a reversal but the t-stats are greater than -2 for CEO's, thus do not indicate statistically significant mean reversion. The story changes when

we look at CFO's. The t-stats for CFO's are less than -2 for the 24 and 36 month periods indicating mean-reversion for CFO's over longer time periods.

A further concern regarding mean reversion would be if companies started out cheap prior to a CEO or CFO departure and then that value was subsequently realized. Were this to be a case, it could be argued that CEO and CFO turnover could be a noisy proxy for what the market had already valued. In Table 4 and Table 5 we look at industry relative Price-to-Book ratios leading up to, and following a CEO or CFO departure.

When looking at the mean and median industry relative P/B ratios we do not see evidence of value realization post a CEO or CFO departure. These results are consistent in the US and the developed world.

Table 4: Industry Relative P/B Ratios Pre-Post CEO/CFO Departure
Russell 3000 Index, 1/1987-7/2011

	Ind Rel P/B 12Mon Prior	Ind Rel P/B Turnover Date	Ind Rel P/B 12Mon After
US CEO			
Median	0.00	-0.11	-0.05
Average	0.58	0.36	-1.39
T-stat	6.92	2.79	-1.43
US CFO			
Median	0.00	-0.08	-0.07
Average	0.79	0.48	0.64
T-stat	6.03	4.94	6.25

Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

Table 5: Industry Relative P/B Ratios Pre-Post CEO/CFO Departure
BMI Developed Markets [ex US], 1/1989-7/2011

	Ind Rel P/B 12Mon Prior	Ind Rel P/B Turnover Date	Ind Rel P/B 12Mon After
DEV CEO			
Median	0.04	0.02	0.02
Average	0.78	0.65	0.69
T-stat	11.18	10.65	12.02
DEV CFO			
Median	0.21	0.09	0.10
Average	1.01	0.71	0.71
T-stat	12.56	9.74	9.60

Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

3 Portfolio Formation

In order to further stress test the excess return that one might generate using CEO departures as a signal, we pursue a portfolio formation approach. This analysis more closely matches what an investor would realize when creating an equal-weighted portfolio of securities experiencing CEO departures. In this analysis, we add securities of firms that have had a CEO departure between 6 and 18-months ago. We rebalance the portfolio monthly. The return is significant in the developed world, adding 56 bps excess returns [industry and beta adjusted], but it is not significant in the US [Table 6].

Table 6: Portfolio Based Industry and Beta Adjusted Returns Post CEO Departure
Russell 3000 Index and BMI Developed Markets (ex US)

	US [1987-2012]	DEV [1998-2012]
Adjusted Return	0.16%	0.56%
Return T-stat	0.91	2.44

Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

4 Sub Periods

In 2005, the number of CEO departure in the Russell 3000 universe peaked at 10.5%. We repeated our analysis from Section 1 in examining the industry adjusted stock price performance, only in this section we subset the periods into 1987-2004, and 2005-2011.

It becomes immediately clear that in the most recent 2005-2011 period, within the US, CEO departure are no longer accompanied with positive excess returns over 12, 24, or 36-month holding periods [Table 7]. Within the developed world, excess returns remain significant and positive in the sub-periods but decline in magnitude post 2005 [Table 8].

Table 7: Industry and Beta Adjusted Returns Pre-Post CEO Departure
Russell 3000 Index, sub-periods

US CEO 1987-2004	Adjusted Return 12Mon Prior	Adjusted Return 12Mon After	Adjusted Return 24Mon After	Adjusted Return 36Mon After
Average	-16.92%	4.91%	6.54%	13.47%
Return T-stat	-11.05	4.06	3.71	5.37
Hit Rate	37.39%	53.16%	52.87%	53.43%
Hit P-value	0.00%	0.02%	0.05%	0.02%

US CEO 2005-2011	Adjusted Return 12Mon Prior	Adjusted Return 12Mon After	Adjusted Return 24Mon After	Adjusted Return 36Mon After
Average	-16.06%	-1.63%	-3.79%	-5.68%
Return T-stat	-15.16	-1.47	-2.06	-2.33
Hit Rate	33.39%	45.88%	43.82%	41.79%
Hit P-value	0.00%	0.01%	0.00%	0.00%

Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

Table 8: Industry and Beta Adjusted Returns Pre-Post CEO Departure

BMI Developed Markets [ex US], sub-periods

DEV CEO 1989-2004	Adjusted Return 12Mon Prior	Adjusted Return 12Mon After	Adjusted Return 24Mon After	Adjusted Return 36Mon After
Average	-1.89%	11.96%	30.54%	57.19%
Return T-stat	-1.18	7.94	11.09	12.84
Hit Rate	45.15%	61.41%	66.38%	68.61%
Hit P-value	0.04%	0.00%	0.00%	0.00%

DEV CEO 2005-2011	Adjusted Return 12Mon Prior	Adjusted Return 12Mon After	Adjusted Return 24Mon After	Adjusted Return 36Mon After
Average	-6.92%	2.48%	4.20%	3.11%
Return T-stat	-7.16	2.41	2.35	1.46
Hit Rate	39.60%	47.28%	47.06%	44.64%
Hit P-value	0.00%	0.09%	0.11%	0.00%

*Source: S&P Capital IQ Quantamental Research**Past performance is not an indication of future results*

5 Incoming CEO's Operating Improvements

Having established that the equity price responds to a new CEO and it is not due to mean reversion or suppressed valuation, we ask whether the new CEO is able to affect positive change. Specifically, does the new CEO improve the operating metrics of the firm? Is the improved operating performance what the market price responds to? We examine two operating metrics: ROE and ROA. We further separate our results by poor performers, or those companies that had negative industry adjusted returns prior to the CEO departure. In this way we can distinguish between those departures that are due to firings from those that result from retirement or health.

In the following analysis we examine the average and median changes in industry relative ROE and ROA one, two and three years after a CEO change. On average we find improvement on both metrics, with steady improvement in each of the three years (Table 9 and Figure 1).

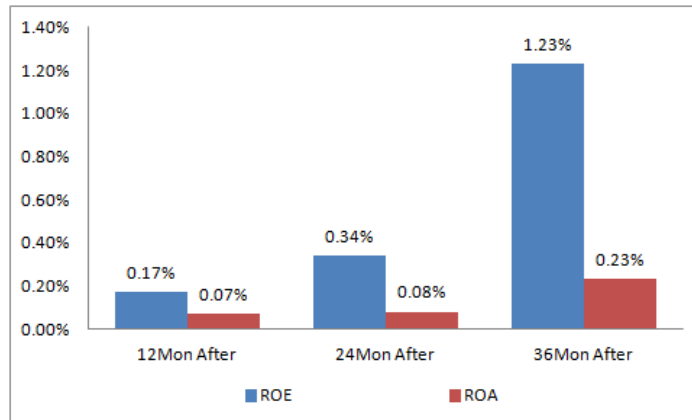
Table 9: Industry Relative Operating Improvements Post US CEO Departure

Russell 3000 Index, 1/1987-7/2011

US CEO	Improvement 12Mon After	Improvement 24Mon After	Improvement 36Mon After
ROE [Mean]	4.71%	5.58%	8.87%
ROA [Mean]	0.33%	0.56%	0.86%
ROE [Median]	0.17%	0.34%	1.23%
ROA [Median]	0.07%	0.08%	0.23%

*Source: S&P Capital IQ Quantamental Research**Past performance is not an indication of future results*

Figure 1: Median Industry Relative Improvements Post US CEO Departure
Russell 3000 Index, 1/1987-7/2011



Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

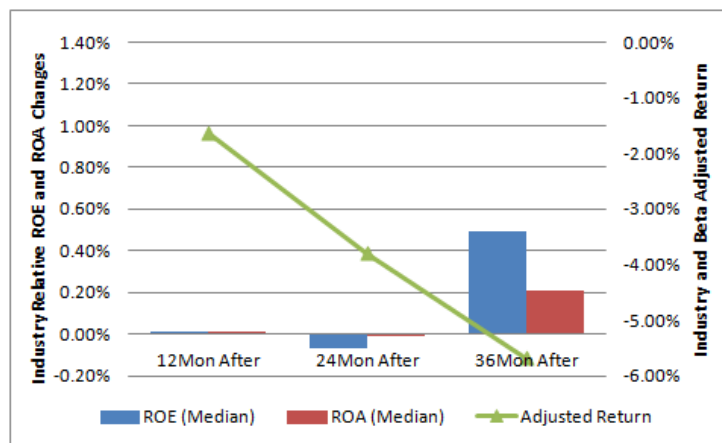
When we examine the sub-periods the story starts to coincide with the weaker market performance. In the 1987-2004 period, new CEO's in the US are able to generate significant improvements in ROE [Table 10]. In the 2005-2011 period, however, the improvement is quite tepid [Table 10 and Figure 2]. Figure 2 further confirms the challenge that incoming CEO's face in the recent period companies continued to underperform their industry, even though operating metrics eventually improved.

Table 10: Industry Relative ROE Improvements Post US CEO Departure
All GICS Industries in Russell 3000 Index, sub-periods

US CEO	Improvement 12Mon After	Improvement 24Mon After	Improvement 36Mon After
1987-2004	0.47%	0.71%	1.69%
2005-2011	0.01%	-0.07%	0.49%

Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

Figure 2: Operating Improvements and Market Performance Post US CEO Departure
Russell 3000 Index, 2005-2011

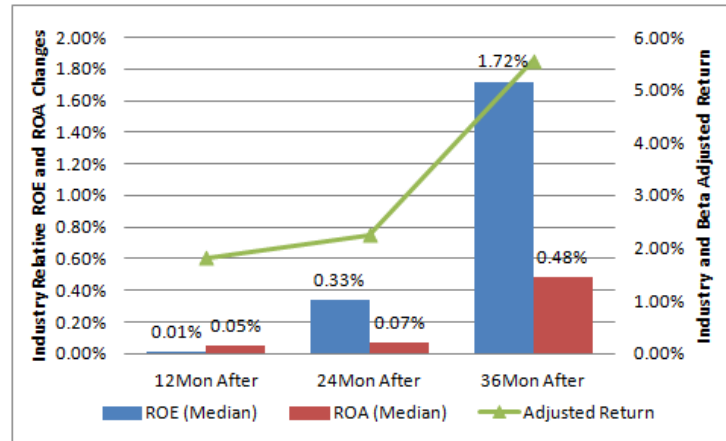


Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

We wanted to segment the poor performers, or those companies that had underperformed the market in the year prior to the CEO departure. In this way we are able to again separate those involuntary departures likely due to firings from voluntary departures due to retirement or health change.

Figure 3: Operating Improvements and Market Performance Post US CEO Departure

Poor Performers in Russell 3000 Index, 1/1987-7/2011



Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

Comparing Figure 3 with Figure 1, we see that operating improvement as measured by change in industry relative ROE is somewhat better among poor performers three years after the turnover, where the median ROE improves by 1.7% and the median industry relative ROA improvement is 0.48% [Table 11]. ROA improvement among poor performers is similar to that of the broader universe.

When we examine the subsequent stock performance of ‘poor performers’ we find weaker results than in the universe of all companies experiencing CEO changes. Further, the number of poor performing companies that subsequently outperform their industry [beta controlled] is less than 50% [significant at the 99% confidence level].

Table 11: Market Performance and Operating Improvements Post US CEO Departure

Poor Performers in Russell 3000 Index, 1/1987-7/2011

Poor Performers	Adjusted Return 12Mon Prior	Adjusted Return 12Mon After	Adjusted Return 24Mon After	Adjusted Return 36Mon After
Average	-45.07%	1.82%	2.25%	5.56%
Return T-stat	-45.87	1.60	1.27	2.25
Hit Rate	0.00%	48.69%	48.32%	47.51%
Hit P-value	0.00%	0.64%	0.48%	0.16%

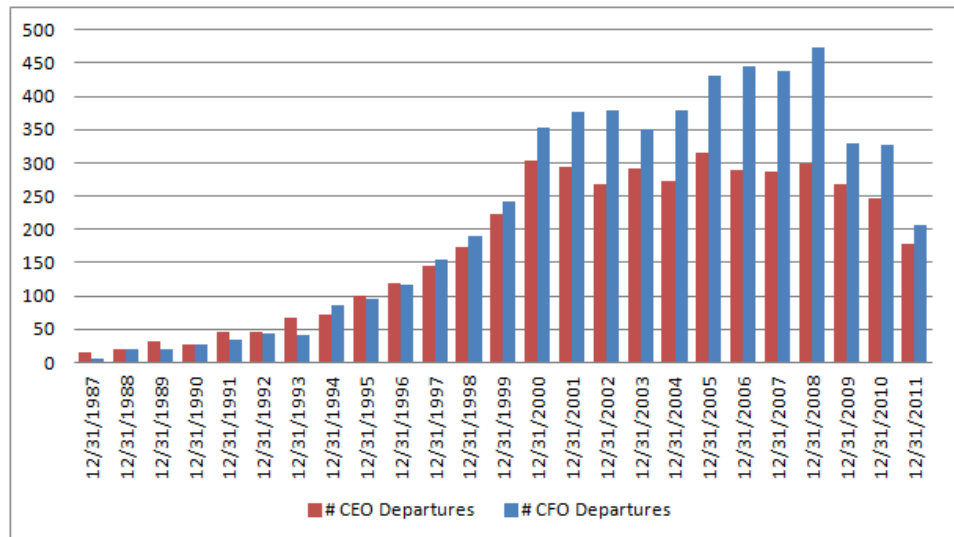
Poor Performers	Improvement 12Mon After	Improvement 24Mon After	Improvement 36Mon After
ROE [Median]	0.01%	0.33%	1.72%
ROA [Median]	0.05%	0.07%	0.48%

Source: S&P Capital IQ Quantamental Research
Past performance is not an indication of future results

6 CEO and CFO Turnover

The frequency of CEO and CFO departures increased steadily from 1987. CEO and CFO turnover peaked in 2005 and 2008 in the US and the developed world respectively (Figure 4 & Figure 5). Since hitting their peaks, the frequency of CEO and CFO departures has diminished through 2011. The average tenure over the 1987-2011 time period, in the US, is 7.3 and 6.4 years for CEO's and CFO's respectively (Table 12). The average tenure over the same time period in the developed world is 4.9 and 4.4 years for CEO's and CFO's respectively (Table 12).

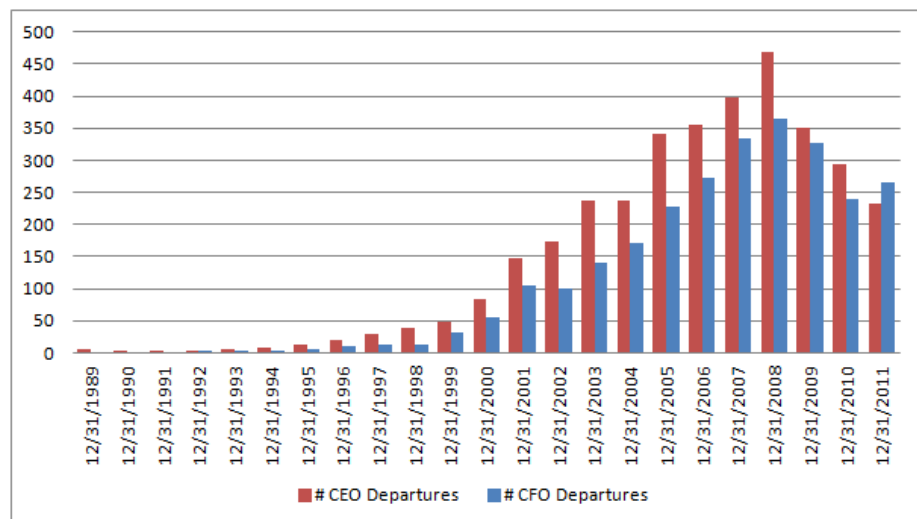
Figure 4: Number of CEO/CFO Departures by Year*
Russell 3000 Index, 1987-2011



* Excludes executives who are in position for less than 12 months

Source: S&P Capital IQ Quantamental Research

Figure 5: Number of CEO/CFO Departures by Year*
BMI Developed Markets (ex US), 1989-2011



* Excludes executives who are in position for less than 12 months

Source: S&P Capital IQ Quantamental Research

Table 12: Number of Departures and CEO/CFO Tenures

	US (1987-2011)		DEV (1989-2011)	
	CEO	CFO	CEO	CFO
Avg # Departures	176	122	152	134
Max # [Year]	315 [2005]	473 [2008]	468 [2008]	365 [2008]
Avg Tenure	7.3 Years	6.4 Years	4.9 Years	4.4 Years

Source: S&P Capital IQ Quantamental Research

7 Data Definition

We use Capital IQ People Intelligence database to identify CEO and CFO turnovers. The universes for the US and the developed world are Russell 3000 and BMI Developed Market (excluding US), respectively. We exclude executives who are in position for less than 12 months in order to reduce the effect of transition CEO's or CFO's.

Excess returns are calculated as stock return less the product of beta and cap-weighted industry return. Returns are winsorized at 1% and 99% of the universes. The operating metrics are based on annual Capital IQ financials and are adjusted for industry median. These metrics are capped at 3 standard deviations to limit the effect of outliers.

8 Conclusion

Investors generally cheer the departure of a CEO, particularly after a period of underperformance. Based on our analysis, we find significant outperformance associated with new CEO's and CFO's both in the US and the developed world. The outperformance does not appear to be due to mean reversion or value realization. Rather the outperformance in the stock price appears to result from operating improvements measured by either ROE or ROA. The improvements in ROE and ROA can be measured for as long as three years from when a new CEO takes over.

Since 2005, the outperformance accompanying CEO departures has been muted in the US as has the operating improvement new CEO's have been able to generate.

REFERENCES

Adus, Rick, Dobson, Stephen, and Goddard, John “The impact of managerial change on team performance in professional sports”, *Journal of Economics and Business*, Vol. 54, 2002, pgs 633-650.

Bushman, Robert, et al. “Risk and CEO Turnover”, *Working Paper* March 2007.
Dezos, Christian, “Entrenchment and Change in Performance Following CEO Turnover”, *Working Paper* 2005.

<http://w4.stern.nyu.edu/emplibrary/ACF6DnnNn.pdf>

Malmendier, Ulrike, and Tate, Geoffrey, 2005, “Superstar CEOs”, *Working Paper*
2006 Booz Allen study on CEO turnover though 2005:

<http://www.boozallen.com/publications/article/3744370>

Our Recent Research

November 2012: 11 Industries, 70 Alpha Signals –The Value of Industry-Specific Metrics

Investors routinely utilize industry intelligence in their investment process. But which information is relevant? Which is irrelevant? Our work yields some surprising results. This work complements our previous industry work on [Retail \[June 2011\]](#), [Banking \[Oct 2011\]](#), and [Oil & Gas \[May 2012\]](#). Using S&P Capital IQ's Global Point-in-Time database and Compustat Industry-Specific data, we look at 70 factors in 11 industries: airlines, hospitals & facilities, managed healthcare, pharmaceuticals & biotechnology, homebuilding, insurance, telecommunications, utilities, gold miners, hotels & gaming, and restaurants

October 2012: Introducing S&P Capital IQ's Fundamental Canada Equity Risk Models

In July 2012 we released our regional risk models -- the Pan-Asia ex. Japan and the Pan-European Models, and updated versions of our US and Global Risk Models. Continuing in our efforts to provide a broad set of models to the asset management community, we are now releasing our second single country risk model -- Canada Fundamental Equity Risk Model.

September 2012: Factor Insight: Earnings Announcement Return – Is A Return Based Surprise Superior to an Earnings Based Surprise?

In this report, we compare the performance of SUE to one based on returns around a firm's earnings announcement date [EAR], proposed by Brandt et al [2008]. We test both factors globally and find EAR dominates SUE in the U.S in the post Reg FD era on both a long-short return and top quintile excess return basis.

August 2012: Supply Chain Interactions Part 1: Industries Profiting from Lead-Lag Industry Relationships

Supply chain relationships are among the most visible and measurable, as revenues and costs shape the realized economic and financial performance of connected companies. Studies have shown that events within a supply chain do introduce these ripple effects, and theories incorporating this information into an investment process have garnered attention in recent years. We construct a map quantifying industry level connections along the supply chain. Using this map, and trailing industry returns as a proxy for industry level information shocks, we construct inter-industry momentum signals. These signals exhibit lead-lag relationships over short horizons, as the information shocks diffuse through the market and manifest themselves in the performance of related industries.

July 2012: Releasing S&P Capital IQ's Regional and Updated Global & US Equity Risk Models

Over the course of the last two years we released our Global and US Fundamental Equity Risk Models. As a natural progression we are releasing the first set of Regional Models – the Pan-Asia ex. Japan and the Pan-Europe Fundamental Equity Risk Models. This document will explain some of the salient aspects of the process adopted for constructing the Regional Models. We have also made additional improvements to our US & Global Equity Risk Models, and we shall explain these changes.

June 2012: Riding Industry Momentum – Enhancing the Residual Reversal Factor

Unlike individual stocks whose short-term returns tend to revert from one month to the next, industry portfolios exhibit return momentum even at a one-month horizon. We examine a strategy that takes advantage of both industry level momentum and stock level reversal. We combine our residual reversal factor with an industry momentum score, and find that the factor performance is greatly enhanced in the Russell 3000 universe between January 1987 and February 2012. The decile return spread is increased by 42 bps per month on average.

May 2012: The Oil & Gas Industry – Drilling for Alpha Using Global Point-in-Time Industry Data

In the oil & gas industry, a key determinant of value and future cash flow streams is the level of oil & gas reserves a firm holds. While most fundamental analysts/investors take into consideration a company's reserves in arriving at price targets, a majority of systematic driven processes do not. Using S&P Capital IQ's Global Point-in-Time database, we investigate the importance of reserve and production information provided by oil & gas companies.

May 2012: Case Study: S&P Capital IQ – The Platform for Investment Decisions

Ten years ago, AAPL traded just below \$12 and closed at \$583.98 on April 30, 2012. That is an average annual return of 48.1% over the period. During this same time the S&P 500 grew at an annual rate of only 2.65%. On April 2nd, Topeka Capital Markets initiated coverage of AAPL with a price target of \$1001. If achieved, this would make AAPL the first company to ever reach a \$1 trillion market cap. In this case study, we highlight some key S&P Capital IQ functionality in analyzing AAPL hypothetically reaching \$1000:

March 2012: Exploring Alpha from the Securities Lending Market – New Alpha Stemming from Improved Data

Numerous studies have examined the information content of short interest and found that heavily shorted stocks tend to underperform and liquid stocks with low levels of short interest subsequently outperform. Most studies relied on short interest data obtained directly from the exchanges available with a significant delay.

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

In this report, we review the performance of S&P CIQ's four U.S stock selection models in 2011. These models were launched in January 2011, and this analysis will assess the underlying drivers of each model's performance over the last 12 months.

January 2012: Intelligent Estimates – A Superior Model of Earnings Surprise

As residual stakeholders, equity investors place enormous importance on a company's earnings. Analysts regularly forecast companies' future earnings. The prospects for a company's future earnings then become the basis for the price an investor will pay for a company's shares. Market participants follow sell side analysts' forecasts closely, identifying those analysts that demonstrate forecasting prowess and track those analysts' forecasts going forward.

December 2011: Factor Insight – Residual Reversal

November 2011: Research Brief: Return Correlation and Dispersion – All or Nothing

October 2011: The Banking Industry

September 2011: Methods in Dynamic Weighting

September 2011: Research Brief: Return Correlation and Dispersion – Tough Times for Active Managers

July 2011: Research Briefs– 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?

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