Barron's Survey: The World's Best CEOs

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Abstract

We examine the abnormal returns around the publication dates of the *Barron* World's Best CEOs issues along with longer-term, risk-adjusted performance. One specific focus of the paper is whether the inclusion in the *Barron*'s survey leads to an increase in positive "affect" of the firms as suggested by Statman, Fisher, and Anginer (2008) in the case of *Fortune*'s most admired firms. In addition, we explore the effect of the listing on the compensation of CEOs included in the ranking. We find a negative share price response to the release of Barron's list. The Best CEOs portfolio return is indistinguishable from the S & P 500 on a longer-term basis, and it underperformed against constructed matched samples, with no differences in risk adjusted returns. Profitability did not increase for selected firms in the post-announcement period and no patterns exist in terms of changes in CEO compensation are associated with the CEO's inclusion in Barron's list.

1. Introduction

The importance of leadership for the modern corporation is a recurring theme in the popular business literature. While Covert and Sattersten (2009) list only ten books primarily focusing on leadership in their best-selling book on the *100 Best Business Books of All Time*, a closer look at their list reveals that leadership is a dominant theme in many of the other ninety books. For example in *Good to Great*— listed as a strategy book by Covert and Sattersten—Collins (2001) identifies the presence of a level 5 leader as an essential ingredient in companies that made the move from good to great. Collins defines a level 5 leader (executive) as one whom "builds enduring greatness through a paradoxical blend of humility and professional will" (p. 20). Similarly, Ware, Michaels and Primer (2004) contend that the presence of a strong corporate culture as established by effective leaders is a key ingredient in corporate success. While these cultures

may vary greatly, they all have in common corporate leadership that communicates ideals to employees and maintains consistency in this message regardless of economic events impacting the company.

Intertwined in questions concerning the relationship between the identification of the best CEOS and the subsequent corporate and individual benefits is the issue of what role the media plays in influencing this relationship. Fang and Peress (2009) investigate whether media outlets have the ability to influence portfolio returns. Their results indicate that while the media coverage helps explain the cross-sectional distribution of stock returns, firms receiving no media attention actually perform better those who do.

In this paper, we use *Barron's* annual "World's Best CEOs" listing as a proxy for superior company leadership to investigate whether superior leadership leads to superior financial performance. *Barron's* annual "World's Best CEOs" made its debut in the March 27, 2005 issue. The selection of the 30 top leaders was based on earnings growth, stock performance, leadership strength and industry stature, competitive challenges faced in their respective businesses, and job tenure of at least three years. *Barron's* makes it clear that their selections are subjective and open for debate. They also acknowledge a bias exists toward those firms that have exhibited solid earnings growth and greater reliance on stock market performance for CEOs who have served for longer time periods. Thus, the criteria for selection includes both objective data (financial and stock-market performance), but also subjective data (leadership, industry stature, and reputation). The initial survey featured 22 US-based and 8 foreign firms, with the subsequent surveys in 2006 and 2007 containing 20 US-based and 10 foreign firms. While some turnover exists on the list each year, a remarkably high retention rate exists with 20 of the 30 firms listed in both 2005 and 2006 returning the following year for a 67 percent retention rate. Commentary is provided each year as to why each CEO was selected, and why others were not. In 2007, the retention/replacement issue was formalized with a table indicating specifically the reason why the CEOs were removed from the list, along with a rationale as to why new CEOs were added. For example, in 2007, Satoru Iwata of Nintendo was added because *Barron's* denoted that "Wii (was) a winner; stock soars," while Anne Mulcahy of Xerox was removed because "momentum may be flagging."The comments in a given year may consist of a mix of historical information (e.g., weak earnings), current assessments (e.g., profit pressures), and forward projections (e.g., movements into new markets could lead to new opportunities).

While the intent of the editors is not to offer advice to their readership on the merits of each of these firms as potential investments, certainly the editors were commending these firms for being led by extraordinary leaders. Yet, except for vague references to the admittedly subjective selection criteria (even the performance-based criteria were not quantified), specific benchmarks, other than a minimum of three years of service as CEO, are not identified within each category. The survey has evolved with changes in the economic environment. For instance, the 2010 survey focused on the ability for executives to keep their companies out of trouble and to expand in the recession through profitable acquisitions.

As a media outlet, *Barron*'s is a powerful player within the financial information world. According to Barron's media kit (http://www.barronsmag.com/docs/circulation/ABC_PubReport_Dec2010.pdf), *Barron*'s enjoys a paid and verified circulation of 304,807 copies as of December 31, 2010.In addition, Barron's web demographics indicate that the average household wealth of users of their website is $3,401,000 with 52.1 percent of fund managers and 41.1 percent of financial advisors/planners part of their online demographics (http://www.barronsmag.com/advert_audience.html).While the rationale for selection often contains a mix of an acknowledgement of recent performance along with future possibilities, as a media outlet, it offers a showcasing of these firms for efforts that the general public may have overlooked or not considered in the context of superior firm leadership. Thus, *Barron*'s serves as a powerful voice for financial professionals and high net worth individuals who may be influenced by articles that it publishes. One might be tempted to infer that the identification of the best CEOs by *Barron*'s may be viewed by the market as a positive signal of the future prospects of the CEOs' companies and as a predictor of future increases in compensation for the selected CEOs.

In this paper, we examine both the announcement effect associated with being named to (or being removed from) the annual listing and the long-term holding period performance of the selected firms. Risk-adjusted performance measures as well as comparisons against appropriate benchmarks are also presented. We also explore whether positive differences exist between selected firms and non-selected firms in terms of operating performance and subsequent CEO compensation. Our study finds that the Best CEO sample generates an initial negative reaction in the market with longer-term returns indistinguishable from the broad market and inferior to matched samples. No significant differences exist in risk-adjusted performance, and firms failed to have improved financial profitability after selection compared to their non-selected counterparts. We find little evidence that a company whose CEO has been identified as having one of the best leads to superior financial performance or that the CEO benefits from increased compensation.

In the next section, we review the relevant literature pertaining to the link between managerial quality and financial performance with particular emphasis on studies that measure management quality on the basis of survey data. Our sample data, methodology and hypotheses are presented in section III, and the results of our analysis are contained in section IV. Concluding remarks are offered in the final section.

2. Literature Review

Understanding the qualities of good management has long been a topic in the management literature. More recently, especially in the wake of corporate scandals such as Enron and Tyco, the finance profession has begun to take a closer look at the quality of management and financial performance. Jennings (2005) argues that hiring managers with courage and a strong moral compass will do more to eliminate corporate misbehavior than will additional regulation.

At a company-wide level, Statman, Fisher, and Anginer (2008) hypothesize that affect, the unconscious feeling regarding the "goodness" or "badness," of a corporation may play a role in the prices and returns from stocks that may be admired for their positive qualities or despised for their less desirable characteristics. Specifically, in the development of a behavioral asset-pricing model, they argue that stocks with negative affect result in higher subjective risk and require higher returns in order to compensate for this behavioral-based risk.

In their analysis of *Fortune*'s most admired corporations, they find that spurned stocks (those performing poorly in *Fortune*'s ranking) actually outperformed those stocks that were admired. They further posit that this may be a consequence of the stock prices of the admired firms rising as a result of their being identified as "admired" firms thus setting them up for lower returns in the future. Similarly, the identification of firm that are least admired increases their negative affect, lowering their stock prices and setting the stage for higher returns. Statman, et al. hypothesize that affect is reflected in the market capitalization and book-to-market factors of the Fama and French (1993) 3- and 4-factor models.

In contrast, Shefrin and Statman (1993) regress a measure of the quality of management against the shareholder returns based on the 1992 *Fortune* survey and find a statistically significant level of correlation between the two variables. This result is consistent with the hypothesis that an association exists between the quality of a company's management and its long-term investment value, a result inconsistent with that of Statman, et al.

Anderson and Smith (2006) test whether a company's positive qualities are already reflected into a company's stock price. Evaluating the stock performance of the most admired companies in *Fortune* magazine's annual survey between 1983 through 2004, they find that a portfolio of admired stocks outperformed the market by a substantial and statistically significant margin, a result inconsistent with the market efficiency. They conclude that in order to beat the market, investors must focus on the intangibles of a company, which would include being recognized as admirable by *Fortune*.

Shefrin and Statman (1995) also analyze the *Fortune* surveys of company reputations. They find evidence that survey respondents rank large companies with low book-to-market ratios as though they believe they are good companies. They note that this is incongruent with empirical evidence suggesting that good stocks are stocks of small companies with high book-to-market ratios. Shefrin and Statman also find that respondents rank stocks as if they are indifferent to beta. They argue that the belief that good stocks are the stocks of good companies underlies the superior performance of high-book-to-market ratio, small company stocks. Hammond and Slocum (1996) link financial performance to reputation. They posit that, by improving financial results, a firm can directly improve its reputation. Demaree (1993) finds that financial results may not be enough to ensure a strong reputation and that strong management also plays a role in improving reputation.

Studies that deal directly with *Fortune's* other corporate awards are numerous. Filbeck, Gorman and Preece (1997) and Vergin and Qoronfleh (1998) study the performance of *Fortune's* "Most Admired Firms."Both studies find that the most admired firms do indeed outperform the market.

Sarkar and Almudhaf (2009) analyze the share price response of being named to the *Forbe*'s 400 Best Big Companies list. They find that holding a portfolio of the entire *Forbe*'s list does show statistically significant abnormal returns, but this performance is driven by the *bottom* ten ranked firms, which produce a 56 percent return in a 36-month post-publication holding period.

Canella and Hambrick (1993) analyze the effect of the departure by top executives of acquired firms have on the firm's performance. They find that improved post-acquisition performance occurs when departing executives are given a top management role in the newly combined firm. Their results suggest top management, and their leadership abilities, are intangibles that have an impact on a company's value. Chang, Dasgopta, and Hilary (2010) confirm this finding and show that the stock price reaction upon CEO departure is negatively related to the firm's prior performance and to the CEO's prior pay. They argue that the CEO impacts firm value beyond firm's assets or other more tangible factors.

To determine what type of managerial style produces success, Shea (1999) uses a 3-factor, repeated-measures experiment testing the effect of leadership style (charismatic, structuring, and considerate) on performance improvement on a manufacturing task. She finds that considerate leadership appears to have an immediate, but not a long-lasting, effect on the performance. In addition, Shea finds that charismatic leadership has a delayed impact, and structuring leadership (business-like, neutral, and factual) appears to have had no effect.

Zingales (2000) shows human capital is becoming a greater determinant of firm value. For firms that were formerly privately held, Adams, Almeida, and Ferreira (2005) find that when the firm's founder retains the CEO title (resulting in more concentrated firm decision making), greater performance volatility occurs. Fee (2003) discovers that external labor opportunities for senior executives are correlated with higher shareholder returns.

By examining the financial performance of firms associated with *Barron's* Best CEOs survey, we hope to gain a better understanding of how performance relates specifically to leadership effectiveness and positive affect. In our study, we attempt to control for affect by using company size and market to book values as proxies for affect as suggested by Shefrin and Statman (1995) and Statman, et al. (2008).

3. Hypotheses

Our first research question is to whether the announcement of a firm's CEO being selected to the World's Best CEO list is perceived by the market as having value. While the market has access to who leads each corporation, the market does not know which of these leaders are considered the best at their jobs. Once this information is revealed, there is the possibility that the market reassesses the future prospects of the affected firms. Assuming that the criteria *Barron's* uses to create its rankings are considered to be attributes associated with producing shareholder value and thus resulting in a positive market reaction, we argue that there should be an upward appraisal of the firm's stock price at the time of the announcement. Thus, our first hypothesis is as follows:

Ha1: There will be a positive share price response to the announcement for firms whose CEOs are named to *Barron's* Best CEOs list.

Our second research question is to whether the announcement of a firm's CEO being selected to the World's Best CEO list is perceived by the market place as having longer-lasting value. Assuming that the criteria *Barron's* uses to create its rankings are considered to be attributes associated with long-term success, we argue that the holding period returns associated with a firm having their CEO listed on the World's Best CEO list should exceed that of an appropriate benchmark. Thus, our second hypothesis is as follows:

Ha2: Holding period returns associated with firms whose CEOs are named to *Barron's* World's Best CEO list will exceed those of appropriate benchmarks on a raw and risk-adjusted basis.

Our third research question is to whether the announcement of a firm's CEO produces superior profitability or operating performance. Assuming that the criteria *Barron's* uses to create their rankings are considered to be attributes associated with better managed firms, enhanced operating performance would be expected. Thus, our third hypothesis is as follows:

Ha3: Firms with CEOs selected the World's Best CEOs will experience higher accounting profitability compared to firms that are not selected.

Our fourth research question explores the possibility that selected CEOs are being acknowledged more for their ability to lead during difficult times or for being able to take advantage of opportunities during the best times. If being a member of the "Best CEOs" plays an important role in the stock performance, then these CEOs may take advantage of opportunities during good times, and may better manage new risks during very bad times. If so, we might imagine that on days when the whole market is subject to either big upturns or downturns, a portfolio of companies managed by good CEOs would outperform a portfolio of companies with less highly-regarded CEOs. Thus, our fourth hypothesis is as follows:

Ha4: Firms with CEOs selected the World's Best CEOs will experience superior share price performance during periods of extreme market conditions.

Our fifth research question is whether being selected as a Best CEO by *Barron's* leads to higher compensation? Meulbroek (2001) notes three functions of executive compensation systems: (1) to compensate managers for completed work, (2) to reduce principal-agent costs and (3) to retain the manager. Following the announcement of a company's CEO being recognized as one of the world's best, we would expect that there will be increased demand for the CEO's services and thus additional compensation to retain the CEO. To investigate this issue, we look at CEO compensation before and after the announcements. Assuming firms perceive that the selection of their CEO to the World's Best CEO

list as valuable, firms should increase their overall compensation packages for selected CEOs to a greater extent than what would be observed for non-selected CEOs. Thus, our fifth hypothesis is as follows:

Ha5: CEOs selected the World's Best CEOs will experience greater compensation packages compared to non-selected CEOs.

4. Sample and Methodology

Standard event methodology is used to generate abnormal returns pertaining to the announcement of inclusion on the *World's Best CEO* list and test our first hypothesis. The Best CEOs sample in this study is based on *Barron'*s annual survey, the first of which was published in the March 28, 2005 issue. (Note 1) To be included in the sample, the firm must meet the following criteria:

1) The sample firms must have return records on the Center for Research on Stock Prices (CRSP) Daily Combined Return File 326 days immediately prior to the announcement date.

2) The sample firms must have return records on the CRSP Daily Combined Return File after the announcement date until the next press release date of next survey(Note 2).

3) The firm must have complete data on Standard and Poor's Research Insight®.

The annual World's Best CEOs for this study, along with their respective ranks each year are listed in Table 1.Across the six years of the survey from 2005 - 2010, there were 138 viable announcements for the annual listing of the top 30 companies.

(Insert Table 1 here)

In order to test our second hypothesis, we compare holding period returns of the Best CEO firms to the performance of the S&P 500 Index, as well as to our three alternative matched benchmark portfolios, described in the next paragraph. We calculate both the cumulative raw returns and risk-adjusted returns. Also, we test our long-run stock performance. We also conduct sensitivity tests of our results by calculating the accounting performance one year and three years after the announcement.

We use three matched portfolios as our benchmark and compare them with the Best CEO firms:

- Size and BE/ME match: matched based on previous year end's market capitalization and book-to-market value of equity (BE/ME) ratio.

- *Barron* match 1: we use *Barron'*s selection criteria and create a matched sample based on the average of the previous five years' EPS growth rate and the previous five years' annual stock returns.

- *Barron* match 2: we use *Barron'*s selection criteria and create a second matched sample based on the average the previous five years EPS growth rate, the past 5 years annual stock returns, and service years when the CEO is selected as the Best CEO.

We retrieve the previous year-end market capitalizations and closing prices of all stocks available from CRSP for each year. We define BE/ME ratios as the book value of common equity from Research Insight®, divided by the year-end market value of common equity of the previous year. We delete firms with negative book to common equity ratios. The previous five years of stock returns are retrieved from CRSP. Earnings per share and CEO years of service at the time of selection as a Best CEO are retrieved from Research Insight. Our potential universe of matching firms consists of all remaining stocks that have available data from CRSP and Research Insight. If a company had previously been ranked on a best CEO list, it is excluded from the potential set of matching firms. In order to derive the best possible match for each firm in our Best CEO sample, we calculate the following matching score (MS) for each Best CEO stock against each of the remaining stocks:

$$MS = \left[\frac{X_1^B - X_1^M}{(X_1^B + X_1^M)/2} \right]^2 + \left[\frac{X_2^B - X_2^M}{(X_2^B + X_2^M)/2} \right]^2 + \left[\frac{X_3^B - X_3^M}{(X_3^B + X_3^M)/2} \right]^2 \qquad (1)$$

where:

X_1 represents the first matching set of characteristics: market capitalization or the previous five years of EPS growth rate

X_2 represents the second matching set of characteristics: the BE/ME ratio or the previous five years of annual stock returns

X₃   represents the third matching set of characteristics (for Barron Match 2 only): CEO years of service at the time of selection as a best CEO

B   refers to the Best CEO sample

M   refers to the remaining stock universe

Then, for each stock in the Best CEO sample, we select the stock with the smallest MS. We repeat the same procedure for each sample year in our study.

Our size and BE/ME match portfolios follow the method described in Barber and Lyon (1997). They argue that matching sample companies to control for size and BE/ME ratio will correct for the possible sources of misspecification and yield well-specified test statistics because it alleviates the new listing, rebalancing, and skewness biases. Following Loughran and Ritter (1995), we do not match the sample by market capitalization and industry for two reasons: first, our matching method will minimize possible industry misclassification; and second, suitable industry matches are not always possible due to the limited number of available companies within the industry that match up comparatively to sample companies.(Note 3)

In order to test whether newly-selected CEO winners or repeat winners have different announcement effects, we develop two sub-samples:

- New CEO sample: the CEO of the firm is selected as best CEO for the first time.
- Repeat winner sample: the CEO of the firm has been selected as best CEO in the previous year(s).

Table 2 shows the mean values of the characteristics of our CEO sample, the matched samples, and the sub-samples. The table shows that the Best CEO sample and the matched samples are very similar in their matching characteristics. Since not all best CEO stocks have available CEO compensation and service years data from Research Insight, only 101 matched pairs exist using our Barron Match 2 method. The results also show that our Barron's Match 1 and Match 2 portfolios are much smaller compared with CEO sample in terms of market capitalization. This may indicate that firm size may be a potential filtering rule for selecting the best CEO companies. Their CEOs are also paid less compared with CEO sample. So we need to be careful about the interpretation of results when compared with the Barron's Match 1 and Match 2 portfolios. The Size and BE/ME match portfolio has on average lower annual stock returns and EPS growth for the past 5 years compared with CEO sample. Among the two sub-samples of new CEO sample and repeat winner sample, the repeat winner sample has larger firm size and lower BE/ME ratios.

(Insert Table 2 here)

By constructing the matched sample based on size and book to market, we are implicitly controlling for the affect related factors that Statman et al. (2008) argue are measures of the subjective risk attributable to negative affect. By matching the comparison portfolios on these measures of affect, our null hypothesis is that there will be insignificant differences in the returns to the *Barron*'s portfolio compared to the matched portfolio.

4. Empirical Results

4.1 Announcement Effect

To examine the short-term announcement effects, we use standard event methodology to generate abnormal returns pertaining to the announcements of being selected as a best CEO.

It is important to consider the possibility of a more gradual diffusion of the information contained in *Barron's* announcement. Our study is not unique in this regard. While examining the stock price response to news surrounding the development of drugs by EntreMed that may cure certain types of cancer, Huberman and Regev (2001) employ a 15-month "event window" in their analysis. In other types of studies (e.g., bond rating changes) the market reaction is studied over a wide range of announcement windows reflecting how the market may anticipate the ratings change before the formal announcement takes place (Goh and Ederington, 1993).

We report the share price response to the release of this survey beginning 5 days prior to the actual event "date."The market model is used to estimate expected returns. Parameter estimates are calculated for the period (–326, –71).Expected returns are estimated during the interval (–5, 5).Following Dodd and Warner (1983), and based on the earlier work of May (1971) and Patell (1976), standard event methodology is employed.

Table 3 shows the results of event study of our Best CEO sample and sub-samples. Panel A shows that there are no significant announcement effect on date 0, but significantly negative abnormal returns (at 5 percent level) for Best CEO sample and repeat winner sub-sample. Over the event window (-5, +5), all three samples have shown a significantly negative cumulative abnormal returns. The results indicate that the announcement of being selected as CEO receives a

negative market reaction. As such, there no evidence to support our first hypothesis of anincrease in the positive affect of these firm as a result of the firms' mention of having a top CEO in contrast to the apparent short term increase found by Statman et al. in the case of the most admired firms.

(Insert Table 3 here)

Since the individual companies in the Best CEO sample will have the same press release date in each year, our test statistics may be biased due to a lack of independence (Note 4). To address this potential bias, we form event portfolios each year consisting of all companies announced on the same date and repeat the event study using these portfolios rather than the individual companies (Note 5). Results (reported in Table 3) of event portfolios show qualitatively similar abnormal returns across event windows. However, since most of the CARs for the event portfolio tests are not statistically significant, this finding suggests that the lack of independence may pose some problem for our results, and we need to interpret our event study results with caution.

Furthermore, since we have some foreign firms in our Best CEO sample, and we use their US data for calculation of returns, there might be problems of non-synchronous trading for these non-US firms. For example, Toyota is listed in Japan and the trading hours in Japan do not overlap with the trading hours in New York.

To examine whether our results are driven by some other factors such as stock volatility and trading volume surrounding the event windows, we retrieve the share volume and stock returns for our Best CEO sample surrounding the event window of (-60, 60). We then compare the share volume and stock return volatility between the (-5, 5) event window and the rest of the trading days. We do not find statistically significant difference (Note 6) between the event window and non-event window. This suggests that stock volatility or trading volume may not be the driving factors of the event study results.

4.2 Post Announcement Long-term Stock Performance

Beyond the lack of independence of announcement dates, non-synchronized trading, and possible information leakagenoted previously, another important reason for having some reservations about the robustness of the event study results is that *Barron'*s is not as prominent a publication as the *Wall Street Journal*—the basis for most event studies. The same concern applies to the continued "announcements" made by the individual companies following the initial press release by *Barron'*s. While the information becomes public at the time of the press release, dissemination of the news can be further confounded by readers of *Barron* receiving their copies of the periodical on different days due to differences in mailing times. For these reasons, the use of return measures involving longer holding periods may be more revealing.

We next compare annual holding period and risk-adjusted returns of the Best CEO firms to the performance of their matched samples and the S&P 500 Index. The annual holding periods start with the *Barron's* announcement and continue through the next release date, at which point the next portfolio is constructed based on the subsequent year's list. A paired difference test is used to calculate a student t-test statistic with n–1 degrees of freedom to analyze raw returns statistically against each benchmark.

$$t \equiv \frac{\overline{d}}{s_d} \times \sqrt{n}$$

(2)

where:

$\overline{d}$ = the mean difference between the market and portfolio return each day

sd = the standard deviation of the difference between the returns each daily

n = equals the number of days corresponding to the annual holding period.

While comparison of raw return data gives us some information concerning the performance of each of the portfolios, little information is gained with respect to the level of risk contained in the portfolios. Two commonly used risk-adjusted measures are calculated for comparison purposes.

First, we calculate the Sharpe (1966, 1994) Index measures for all portfolios. The Sharpe Index considers excess return per unit of total risk.

$$S = \frac{d}{s_d}$$

(3)

where:

d=   mean daily difference between the Best CEO portfolio or matched portfolio stocks and the T-bill return, calculated over respective holding periods

s_d=   the sample standard deviation of the daily return differences

The standard deviation measures total risk, as opposed to systematic or market risk. Therefore, the Sharpe Index is the appropriate measurement of risk-adjusted return when the investor is not well diversified and is exposed to some level of company-specific risk.

Next, we calculate the Treynor (1965) Index measures. The Treynor Index uses systematic risk, measured by beta, instead of total risk in calculating risk-adjusted measures. Therefore, the Treynor Index is the appropriate measurement of risk-adjusted return when the investor is well diversified and is not exposed to company-specific risk.

$$T = \frac{d}{\beta}\sqrt{n}$$

(4)

where:

d =   mean daily difference between the return on the Best CEO portfolio or matched portfolio stocks and the T-bill return, calculated over respective holding periods

β=   portfolio beta

n =   number of days in the respective holding periods

The Sharpe Index measures return per unit of total risk. If an investor is holding a poorly diversified portfolio, the Sharpe ranking is particularly relevant. If an investor is holding a diversified portfolio, Treynor's measure of return per unit of systematic risk is the more relevant measure of performance.

Jensen's (1968) Alpha, a measure of differential return, shows whether a portfolio exhibits above or below average risk-adjusted returns. We calculate Jensen's Alpha, α, as the intercept term of the regression of the excess returns on the portfolio of the Best CEO firms (or matched samples) against the excess returns of the market:

$$R_{pt} - R_{ft} = \alpha + \beta(R_{mt} - R_{ft}) + e_{pt},$$

(5)

A positive (negative) Alpha is consistent with a portfolio of undervalued (overvalued) securities. Our null hypothesis is that there will be insignificant differences in the risk-adjusted measures to the *Barron*'s portfolio compared to the matched portfolio

The results of raw returns and risk-adjusted measures for our different samples are reported in Table 4.The results of cumulative raw returns show that the Best CEO sample has lower annual returns compared with its matched samples. The differences are statistically significant when they are compared with Barron Match 2 portfolios. When compared with the S&P 500 index, though the Best CEO sample has higher raw returns than S&P 500, the differences are not statistically significant. We observe similar results with respect to Sharpe and Treynor measures: the Best CEO sample does not have higher Sharpe and Treynor measures compared with their matched portfolios. Likewise, the Jensen's alpha measures show that although the Best CEO sample has positive alphas, none of these alphas are statistically significant.

(Insert Table 4 here)

We also test the long-run performance of the *Barron*'s sample using the Fama-French (1993) 3-factor and 4-factor models. The 3-factor model is applied by regressing the daily excess returns for regulated portfolios on a market factor, a size factor, and a book-to-market factor. The 4-factor model is constructed by integrating the Fama-French 3-factor model with an additional factor capturing the one-year momentum anomaly documented by Jegadeesh and Titman (1993).Specifically, the 3- and 4-factor models are defined respectively as:

$$R_{pt} - R_{ft} = a_i + b(R_{mt} - R_{ft}) + s\ SMB_t + hHML_t + e_t;$$

(6)

$$R_{pt} - R_{ft} = a_i + b(R_{mt} - R_{ft}) + s\ SMB_t + hHML_t + m\ UMD_t + e_t;$$

(7)

where:

R_{pt} =   the simple return on the Best CEO sample

R_{ft} =   the return on one-month T-bills

R_{mt} =   the return on a value-weighted market index

SMB_t =   the return on a value-weighted portfolio of small stocks less the return on a value-weighted portfolio of big stocks

HML_t =   the return on a valued-weighted portfolio of high book-to-market stocks less the return on a value-weighted portfolio of low book-to-market stocks

UMD_t =   the return on the two prior high return portfolios less the returns on the two prior low return portfolios

A positive intercept for these regressions, a, indicates that after controlling for the market, size, book-to-market ratio, and momentum factors in returns, the sample firms have performed better than expected. To determine whether the regression intercepts, a, are significantly different from zero, we employ the t-test statistics.

The results of Fama-French models are shown in Table 5. Our results indicate that after controlling for additional factors covered by the Fama-French models, we do not observe superior performance for our Best CEO sample and its sub-samples as none of the intercepts are statistically significant. For the 3 and 4 factor models, the coefficients for the market variable are positively significant, while in the 4-factor model, the book to market variable coefficient is negatively significant, which supports Statman, et. al's (2008) contention that the affect is reflected in the market size and book to market ratios.

(Insert Table 5 here)

Long-term performance is also assessed by using buy-and-hold abnormal returns (BHARs). Building on the work of Ritter (1991), Barber and Lyon (1997) find that BHARs can be used to address several issues regarding portfolio performance. A BHAR is the difference between the return on a buy-and-hold investment in a company of interest less the return on a buy-and-hold investment in a similar asset/portfolio. Barber and Lyon note that BHARs can overcome several biases inherent in estimating long-term CARs. Specifically, BHAR is calculated as:

$$t_{BHAR} = \overline{BHAR}_{it} / (\sigma(BHAR_{it}) / \sqrt{n}) \tag{8}$$

where :

$\overline{BHAR}_{it}$ =   average buy-and-hold abnormal return

$\sigma(BHAR_{it})$ =   cross-sectional standard deviation of the buy-and-hold abnormal returns

n =   the number of matched comparisons

For the calculation of BHAR, we use our matched samples as our benchmark portfolio. Therefore, in this study, BHAR is measured as the return of buy-and-hold investment of our Best CEO sample firm less the return of buy-and-hold investment of its matched firm, with differences cumulated over the portfolio. The BHAR holding periods start with the *Barron's* announcement and continue through the next release date.

We report the results of BHARs for our samples in Table 6. We test the null hypothesis that the buy-and-hold abnormal returns are equal to zero with the paired t-test.

In general, the t-test results show that our Best CEO firms do not outperform their matched samples using the annual buy-and-hold strategy. If we compare the Best CEO sample with Barron Match 2 portfolios, the Best CEO sample significantly (at the 1 percent level) underperforms its matched firms.

In sum, we fixed mixed evidence regarding our second hypothesis as to the superiority in holding period returns and risk-adjusted measures compared to appropriate benchmarks. In general, the longer-term cumulative raw returns show that the Best CEO sample has lower annual returns compared with its matched samples. The Best CEO sample did outperform the S & P 500, but we are unable to distinguish performance of the Best CEO sample from its matched samples on a raw or risk-adjusted basis. This result is consistent with that of Agarwal et al. (2011) in their study of firms led by the CEOs of Britain's Most Admired Companies. In contrast, both Wade et al. (2006) who look at firms led by CEOs of the Year as determined by *Financial World* and. Malmendier, and Tate (2009) who examine "superstar" CEOs –those who are recipients of distinction such as being on Barron's list of Best CEOs -find the companies underperformed the matched samples in the years following any acclaim achieved by their CEOs.

(Insert Table 6 here)

4.3 Post-Announcements Accounting Performance

So far, our results indicate that Best CEO firms do not outperform their matched samples in the post-announcement period. However, a more complete understanding of long-run post-announcement performance may be gained from

looking at accounting profitability or operating performance, since stock returns are forward looking so that any long-run effects may have been largely priced in at the time of announcement.

To investigate our third hypothesis, we use two measures of operating performance, return on asset (ROA) and earnings per share (EPS) growth rates for periods extending one and three years after the announcement, first in a trend analysis and then cross-sectionally to test our hypothesis. The results are reported in Table 7.

(Insert Table 7 here)

The results in Panel A show that the best CEO firms did not have higher profitability in the post-announcement periods. In fact, both the ROA and EPS growth rate decreased significantly three years after the announcement. To test whether the results are driven by general market conditions (e.g., the 2007-2008 financial crisis occurred during the middle of our sample period) rather than the announcement effect, we also show the results for our matched samples. In general, our Barron Match 1 and Match 2 portfolios experienced increases (with the exception of Barron Match 2 for the one year change) in ROAs, though the results are not statistically significant. T-tests of changes of ROAs and EPS growth rates between the Best CEO and their matched samples also indicate that there are no statistical differences between the accounting performance of Best CEO and their matched samples refuting our third hypothesis. This result contrasts with those of Wade et al. (2006) who find a deterioration in operating results for 'CEO of the Year' companies and Agarwal et al. (2011) who find continued superior operating performance in the Britain's Most Admired Companies. Malmendier, and Tate (2009) note that "superstar" CEOs are more likely to engage in earnings management compared to those who operate more anonymously.

4.4 Do Best CEO Firms Perform Better During Extreme Market Conditions?

Our results do not show any significant differences between the returns of the Best CEO sample and their matched samples. Next, we test our fourth hypothesis regarding the comparison of stock performance of the Best CEO sample and their matched samples during extreme market conditions. We investigate days during our sample period when the market rose or fell by some unusually large amount and then compare the well-led portfolio with their matched sample counterparts. We define "up days" as the days when S&P 500 index rose by at least two percent compared to its previous day's index level, and "down days" as the days when S&P 500 index fell by at least two percent compared to previous day. From this criterion, we identified 66 up days and 80 down days during our sample period. Then, for each up day or down day, we retrieve the daily returns for both the Best CEO sample and its matched samples within the period of ten, 20, and 30 days after the market upturns or downturns. Then we compare the mean daily returns and the volatility of daily returns (measured by standard deviation of daily returns) of the Best CEO sample and its matched samples. In order to compare the risk-adjusted returns, we also calculate the mean daily returns divided by standard deviation of daily returns to measure mean returns per unit of total risk.

The results are reported in Table 8 and show that the Best CEO sample does not have higher returns than its matched samples during both good times and bad times. The results in Table 8 show that after adjusting for risk, the Best CEO sample generally underperforms its matched samples during both good and bad times, especially when compared with Barron Match 1 and Match 2 portfolios. The results contrast with those of Filbeck, Gorman and Zhao (2010) who in their study the consequences of firms being named as a top company for leaders by *Chief Executive* magazine find that firms named in that survey had superior returns during times of higher volatility. However, similar to the results reported here, they find there were otherwise no differential long- or short-term returns for the top companies for leaders and other comparison portfolios. Thus, we find little support for our fourth hypothesis regarding superior performance being observed by firms whose CEOs are selected for inclusion in the World's Best CEOs during extreme market conditions.

(Insert Table 8 here)

4.5 Post-Announcements CEO Compensations

Our results so far indicate that the announcements related to the selection of the Best CEO sample do not lead to any significant effect (if not negative) regarding stock performance or accounting performance. Next, in order to test our fifth hypothesis, we retrieve CEO compensation data (including salary, bonus, and annual total compensation) from Research Insight. Our results are reported in Table 9. Our results show that for the Best CEO sample, although salaries increased significantly (at the 5 percent level) three years after the announcement, their total compensation decreased significantly (at the 1 percent level). When we compare the changes of CEO compensation to our matched samples, none of them (with the exception of size and BE/ME match for the one year post-announcement period) have significantly different changes regarding total compensation. T-tests of changes between the Best CEO compensation and matched samples indicate that the changes in CEO compensation are mostly driven by the stock performance of the firm, rather than whether the CEO is being selected as among the World's Best CEOs. In other words, contrary to our

hypothesis, being recognized by *Barron*'s as a superior CEO does not lead to significant changes in a CEO's personal benefits. This result contrasts with those of both Wade et al. (2006) and Malmendier, and Tate (2009) who find that compensation increases following certification as a top CEO.

(Insert Table 9 here)

5. Conclusions

In this study, we investigate whether a company's stock price performance is influenced by its CEO being named to *Barron*'s World's Best CEO list, based on an initial announcement effect and on a longer-term, risk-adjusted basis. The results indicate that the announcement of being selected among the best CEOs actually results in a negative market reaction. While not statistically significant, the Best CEO sample did outperform the S & P 500.However, the longer-term cumulative raw returns show that the Best CEO sample has lower annual returns compared with its matched samples. On a risk-adjusted basis, we are unable to distinguish performance of the Best CEO sample from its matched samples. While the Best CEO sample generates positive Jensen's alpha values, the values are also not statistically significant. We also employ the Fama-French model as well as BHARs and find similar results.

In addition, the Best CEO sample did not have higher profitability in the post-announcement periods. In fact, both the ROA and EPS growth rate decreased significantly three years after the announcement. For the CEOs themselves, it appears that any changes in compensation are mostly driven by the stock performance of the firm, rather than whether the CEO is being selected as a best CEO in the world. In this regard, to the extent that inclusion of the companies in the Barron's survey leads to an increase in the positive affect of the firms, our results do not support the hypotheses of Statman et al. (2008).

While the recent works of Fang and Peress (2009) and others show how the media can influence corporate returns, in the case of the publication of *Barron*'s survey of the top CEOS, we do not find evidence consistent with media influence. Whether this is due to a lack of information content in listing of the Best CEOs or whether the lack of market reaction can be attributed to the medium rather than the message is an unresolved issue. More research is required to better identify the aspects of management quality that are most closely associated with financial performance and to determine the most effective ways for conveying this information to the market.

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Note 1. The annual surveys subsequently appeared in the March 27, 2006, March 26, 2007, March 24, 2008, March 23, 2009, and March 29, 2010 issues.

Note 2. We include foreign firms in our study sample as long as they have available data from CRSP and Research Insight. A total of 36 of our 138 announcements are from foreign firms.   We use their US return and accounting data for calculation purposes.

Note 3. Savor and Lu (2009) use a modified version of the matching firm approach advocated by Barber and Lyon (1997). They first identify all firms with the same two-digit SIC code and market value of equity within 50 percent and 150 percent range of a given sample firm. They then select the firm with the closest BE/ME ratio of the sample firm and repeat the procedure ten times to obtain ten control firms. Thus, instead of selecting only one matching firm for each sample firm, they use a portfolio of 10 firms. Their main reason for this process is that matching just one firm is very sensitive to possible mismatches. We also explored the Savor and Lu method and obtained inferior matching results. The main reason is that the available stocks after the initial filtering are very limited and the matching properties on market value of equity and BE/ME ratio resulted in wider deviations from our matching criteria For example, by using their method, our sample has a BE/ME ratio of 1.99 while the corresponding figure for the matched sample is 0.58. We also considered another filtering rule (BE/ME ratio of the available stocks should be within 50 percent to 150 percent of that of the sample firm) for the matching, but about 40% of the sample stocks cannot find the matching stocks by this method.

Note 4. We thank an anonymous referee for this comment

Note 5. Please see Brown and Warner (1980, 1985), and Filbeck, Gorman and Zhao (2009) for reference to this method.

Note 6. Results omitted for brevity.

Table 1. World's Best CEOs

2005 Company	CEO	Since	2006 Company	CEO	Since	2007 Company	CEO	Since
Autodesk	Bartz, Carol	1992	BP	Browne, John	1995	Berkshire Hathaway	Buffett, Warren	1965
BP	Browne, John	1995	Berkshire Hathaway	Buffett, Warren	1965	American Express	Chenault, Kenneth	2001
Berkshire Hathaway	Buffett, Warren	1965	American Express	Chenault, Kenneth	2001	United Technologies	David, George	1994
American Express	Chenault, Kenneth	2001	United Technologies	David, George	1994	Echostar Communications	Ergen, Charlie	1980
Toyota Motor	Cho, Fujio	1999	Coach	Frankfort, Lew	1995	Blackrock	Fink, Larry	1988
Lexmark International	Curlander, Paul J.	1998	Lehman Brothers	Fuld, Richard	1994	Coach	Frankfort, Lew	1995
Coach	Frankfort, Lew	1995	Renault	Ghosn, Carlos	2005	Lehman Brothers	Fuld, Richard	1994
Lehman Brothers	Fuld, Richard	1994	Royal Bank of Scotland	Goodwin, Fred	2000	Royal Bank of Scotland	Goodwin, Fred	2000
Nissan Motor	Ghosn, Carlos	2001	General Electric	Immelt, Jeffrey	2001	General Electric	Immelt, Jeffrey	2001
Royal Bank of Scotland	Goodwin, Fred	2000	Apple Computer	Jobs, Stephen	1997	Nintendo	Iwata, Satoru	2002
General Electric	Immelt, Jeffrey	2001	SAP	Kagermann, Henning	2003	Apple Computer	Jobs, Stephen	1997
Apple Computer	Jobs, Stephen	1997	Wells Fargo	Kovacevich, Richard	1998	SAP	Kagermann, Henning	2003
Hershey Foods	Lenny, Richard	2001	Procter & Gamble	Lafley, A.G.	2000	Wells Fargo	Kovacevich, Richard	1998
ENI	Mincato, Vittorio	1998	Tesco	Leahy, Terry	1997	Procter & Gamble	Lafley, A.G.	2000
Countrywide	Mozilo, Angelo	1998	Genentech	Levinson, Arthur	1995	Tesco	Leahy, Terry	1997
Xerox	Mulcahy, Anne	2001	Whole Foods	Mackey, John	1980	Whole Foods	Mackey, John	1980
Ryanair Holdings	OLeary, Michael	1994	Legg Mason	Mason, Richard	1981	Mittal Steel	Mittal, Lakshmi	1976
Wipro	Paul, Vivek	1999	Mittal Steel	Mittal, Lakshmi	1976	Macquarie Bank	Moss, Allan	1993
Electronic Arts	Probst, Lawrence	1991	Macquarie Bank	Moss, Allan	1993	Countrywide	Mozilo, Angelo	1998
Exxon Mobil	Raymond, Lee	1993	Countrywide	Mozilo, Angelo	1998	News Corp	Murdoch, Rupert	1953
PepsiCo	Reinemund, Steven	2001	Xerox	Mulcahy, Anne	2001	Ryanair Holdings	OLeary, Michael	1994
Progressive	Renwick, Glenn	2001	Nidec	Nagamori, Shigenobu	1973	Group Danone	Riboud, Franck	1996
Vornado Realty	Roth, Steven	1980	Ryanair Holdings	OLeary, Michael	1994	Expeditors International	Rose, Peter	1988
Yahoo!	Semel, Terry	2001	PepsiCo	Reinemund, Steven	2001	Vornado Realty	Roth, Steven	1980
XTO Energy	Simpson, Bob	1993	Progressive	Renwick, Glenn	2001	Zurich Financial	Shiro, James	2002
Costco	Singegal, James	1988	Vornado Realty	Roth, Steven	1980	XTO Energy	Simpson, Bob	1993
Toll Brothers	Todd, Robert	1967	XTO Energy	Simpson, Bob	1993	Costco	Singegal, James	1988
Johnson & Johnson	Weldon, William	2002	Costco	Singegal, James	1988	FedEx	Smith, Fred	1971
Wrigley	Wrigley, William	1999	Toll Brothers	Todd, Robert	1967	Tata Sons	Tata, Ratan	1991
Samsung Electronics	Yun, Jong-Yong	1996	Samsung Electronics	Yun, Jong-Yong	1996	Samsung Electronics	Yun, Jong-Yong	1996

2008			2009			2010		
Company	CEO	Since	Company	CEO	Since	Company	CEO	Since
Research in Motion	Balsillie, Jim and Mike Lazaridis	1992	Research in Motion	Balsillie, Jim and Mike Lazaridis	1992	Research in Motion	Balsillie, Jim and Mike Lazaridis	1992
Berkshire Hathaway	Buffett, Warren	1965	Amazon.com	Bezos, Jeff	1994	Amazon.com	Bezos, Jeff	1994
Cisco Systems	Chambers, John	1995	Berkshire Hathaway	Buffett, Warren	1965	Berkshire Hathaway	Buffett, Warren	1965
American Express	Chenault, Kenneth	2001	DirecTV	Carey, Chase	2003	Reckitt Benckiser	Becht, Bart	1999
Merck	Clark, Richard	2005	Cisco Systems	Chambers, John	1995	Cisco Systems	Chambers, John	1995
Dish Network	Ergen, Charlie	1980	JPMorgan Chase	Dimon, Jamie	2006	JPMorgan Chase	Dimon, Jamie	2006
BlackRock	Fink, Laurence	1998	BlackRock	Fink, Laurence	1998	BlackRock	Fink, Laurence	1998
Coach	Frankfort, Lew	1995	Petrobrias	Gabrielli, Jose Sergio	2005	Petrobrias	Gabrielli, Jose Sergio	2005
Royal Bank of Scotland	Goodwin, Fred	2000	Monsanto	Grant, Hugh	2003	Oracle	Ellison, Larry	1977
Monsanto	Grant, Hugh	2003	Hewlett-Packard	Hurd, Mark	2005	Hewlett-Packard	Hurd, Mark	2005
Hewlett-Packard	Hurd, Mark	2005	Nintendo	Iwata, Satoru	2002	Netflix	Hastings, Reed	1997
General Electric	Immelt, Jeffrey	2001	Apple	Jobs, Steven	1997	Apple	Jobs, Steven	1997
Nintendo	Iwata, Satoru	2002	Procter & Gamble	Lafley, A.G.	2000	Alstom	Kron, Patrick	2003
Apple	Jobs, Steven	1997	Tesco	Leahy, Terry	1997	Tesco	Leahy, Terry	1997
SAP	Kagermann, Henning	2003	Family Dollar	Levine, Howard	1998	Ford Motor	Mulally, Alan	2006
Procter & Gamble	Lafley, A.G.	2000	Genentech	Levinson, Art	1995	Royal Bank of Canada	Nixon, Gordon	2001
Deere & Company	Lane, Robert	2000	Vivendi	Levy, Jean-Bernard	2005	EOG Resources	Papa, Mark	1998
Tesco	Leahy, Terry	1997	Tencent	Huanteng, Ma	1997	Tencent	Huanteng, Ma	1997
Alibaba Group	Ma, Jack	1999	Canon	Mitarai, Fujio	1995	Canon	Mitarai, Fujio	1995
Canon	Mitarai, Fujio	1995	ArcelorMittal	Mittal, Lakshmi	1976	Li & Fung	Rockowitz, Bruce	2004
ArcelorMittal	Mittal, Lakshmi	1976	Ryanair Holdings	O'Leary, Michael	1994	Ryanair Holdings	O'Leary, Michael	1994
Ryanair Holdings	O'Leary, Michael	1994	IBM	Palmisano, Samuel	2002	IBM	Palmisano, Samuel	2002
IBM	Palmisano, Samuel	2002	Group Danone	Riboud, Frank	1996	Standard Chartered	Sands, Peter	2006
Group Danone	Riboud, Frank	1996	Zurich Financial Systems	Schiro, James	2002	Cummins	Solso, Tim	2000
Expeditors Int'l	Rose, Peter	1988	Costco	Sinegal, James	1988	Costco	Sinegal, James	1988
Zurich Financial Systems	Schiro, James	2002	McDonald's	Skinner, James	2004	McDonald's	Skinner, James	2004
XTO Energy	Simpson, Bob	1986	FedEx	Smith, Fred	1971	FedEx	Smith, Fred	1971
Costco	Sinegal, James	1988	ExxonMobil	Tillerson, Rex	2006	ExxonMobil	Tillerson, Rex	2006
FedEx	Smith, Fred	1971	Taiwan Semiconductor Manufacturing	Tsai, Rick	2005	BYD	Wang, Chuan-fu	1995
Tata Sons	Tata, Ratan	1991	Abbott Laboratories	White, Miles	1999	Abbott Laboratories	White, Miles	1999

Table 2. Descriptive statistics for Best CEO Sample, matched samples and sub-samples

Measure	Best CEO Sample	Size and BE/ME Match	Barron Match 1	Barron Match 2	New CEO Sample	Repeat Winner Sample
Number of events	138	138	138	101	62	76
Market capitalization ($ millions)	64,334	62,701	3,282	9,295	52,919	73,646
BE/ME ratio	1.74	1.62	2.77	0.41	2.63	1.00
Past 5 years average annual stock returns	0.233	0.146	0.233	0.223	0.232	0.234
Past 5 years average EPS growth rate	0.387	-0.073	0.397	0.275	0.285	0.469
Service years when being selected as best CEOs	11	6	7	11	11	12
Salaries ($ thousands) when being selected as best CEOs	1,143	1,106	766	733	1,187	1,106

Table 2 reports the mean values of the characteristics for our Best CEO sample, its matched samples and sub-samples. We retrieve previous year-end market capitalization and closing price of all stocks available from CRSP for each year. We define BE/ME ratios as the book value of common equity from Research Insight®, divided by the year-end market value of common equity of the previous year. We delete firms with negative book to common equity ratios. Past 5 years stock returns are retrieved from CRSP. Earnings per share and CEO service years when selected as best CEO are retrieved from Research Insight. We construct three matched portfolios as our benchmark: size and BE/ME match (matched based on the previous year end's market capitalization and book-to-market ratio), Barron match 1 (matched based on average EPS growth rate and annual stock returns for the previous five years) and Barron match 2 (matched based on average EPS growth rate and annual stock returns for the previous five years, and years of service at the time of the CEO is selected as a Best CEO). We also construct two sub-samples: the new CEO sample and the repeat winner sample, to test whether newly selected CEOs (or repeatedly selected CEOs) will affect stock performance.

Table 3. Abnormal returns (ARs) and cumulative abnormal returns (CARs) around the event date for Best CEO sample

	Best CEO Sample (n=138)		New CEO Sample (n=62)		Repeat Winner Sample (n=76)		Event Portfolios	

Panel A. Abnormal returns (%) around event date

Day	AR	Z-stat	AR	Z-stat	AR	Z-stat	AR	Z-stat
-5	-0.03	0.86	0.11	1.17	-0.15	0.10	0.01	0.07
-4	-0.06	0.08	-0.02	-0.11	-0.09	0.20	-0.14	-1.06
-3	-0.41	-1.94**	-0.66	-3.36***	-0.21	0.46	-0.27	-1.95
-2	-0.52	-3.86***	-0.69	-2.90***	-0.37	-2.58***	-0.15	-1.14
-1	-0.12	-0.90	-0.46	-2.42***	0.16	0.99	0.01	0.11
0	0.12	0.16	0.38	1.04	-0.09	-0.73	0.17	0.72
1	-0.18	-1.70*	-0.26	-0.95	-0.11	-1.43*	0.01	0.02
2	-0.23	-1.12	-0.12	-0.15	-0.33	-1.38*	0.01	0.06
3	-0.52	-2.75***	-0.48	-1.95**	-0.55	-1.95**	-0.19	-1.07
4	0.02	-0.10	0.22	0.38	-0.16	-0.49	0.20	1.02
5	0.07	0.19	0.04	0.32	0.10	-0.04	-0.05	-0.22

Panel B. Cumulative abnormal returns (%) around event date

Interval	CAR	Z-stat	CAR	Z-stat	CAR	Z-stat	CAR	Z-stat
(-5, -2)	-1.02	-2.43***	-1.26	-2.60***	-0.83	-0.91	-0.55	-2.52*
(-1, 0)	0.00	-0.52	-0.97	-0.97	0.07	0.19	0.18	0.85
(1, 5)	-0.84	-2.46***	-0.60	-1.05	-1.05	-2.37***	-0.02	-0.06
(-5, 5)	-1.86	-3.34***	-1.93	-2.69***	-1.80	-2.07**	-0.39	-0.63

Table 3 reports the results of the event study for the Best CEO sample. Panel A shows the abnormal returns (in percentage) around event date, and Panel B shows the cumulative abnormal returns (in percentage). We test the share price response to the release of this survey beginning 5 days prior to the event date by calculating abnormal returns (ARs) and cumulative abnormal returns (CARs). Expected returns are estimated from the market model. Expected returns are estimated from the market model. Expected returns are estimated during the interval (−5, 5) and estimates of the parameters are calculated for the trading day period (−301, −46) using 255 trading day year. We follow Dodd and Warner's (1983) event-study method.

***, **, * indicate statistical significance at 0.01, 0.05 and 0.10 level, respectively.

Table 4. Raw and risk-adjusted returns of the Best CEO sample compared to the S&P 500 and the matched samples

	Best CEO Sample	New CEO Sample	Repeat Winner Sample
Panel A. Cumulative raw return (%)			
Best CEO Sample (1)	8.588	11.117	6.525
Size and BE/ME Match (2)	8.529	13.836	4.270
CAR: (1) - (2)	0.059	-2.719	2.255
Barron Match 1 (3)	12.082	18.953	6.510
CAR: (1) - (3)	-3.494	-7.836	0.015
Barron Match 2 (4)	17.902	23.467	13.643
CAR: (1) - (4)	-11.094***	-12.843**	-9.630*
S&P 500 Index(5)	4.254	5.839	2.961
CAR: (1) - (5)	4.334*	5.278*	3.564
Panel B. Risk-adjusted performance measures			
Sharpe measure			
Best CEO Sample	0.0148	0.0210	0.0092
Size and BE/ME Match	0.0157	0.0231	0.0054
Barron Match 1	0.0238	0.0334	0.0074
Barron Match 2	0.0363	0.0378	0.0258
S&P 500 Index	0.0045	0.0045	0.0010
Treynor measure			
Best CEO Sample	0.0230	0.0353	0.0156
Size and BE/ME Match	0.0243	0.0392	0.0091
Barron Match 1	0.0439	0.0748	0.0152
Barron Match 2	0.0606	0.0685	0.0472
S&P 500 Index	0.0067	0.0067	0.0016
Jensen's alpha			
Best CEO Sample	0.0175	0.0281	0.0156

Table 4 reports the raw and risk-adjusted returns of the Best CEO sample compared to S&P 500 and matched samples. Panel A reports the annualized raw returns for the Best CEO sample and benchmark portfolios (i.e., S&P 500 returns and matched samples returns). For each stock in the Best CEO sample, we calculate its CAR compared to benchmark portfolio over the holding period and use the paired T-test to test whether CAR is significantly different from zero. Panel B calculates the three risk-adjusted performance measures: Sharpe ratio, Treynor ratio and Jensen's alpha.

***,**, * indicate statistical significance at 0.01, 0.05 and 0.10 level, respectively.

Table 5. Regression results for Fama-French 3- and 4-factor model for the Best CEO sample

		Best CEO Sample (n=138)	New CEO Sample (n=62)	Repeat Winner Sample (n=76)
Panel A. $R_{it} - R_{ft} = a_i + b(R_{mt} - R_{ft}) + s\,SMB_t + hHML_t + e_{it}$;				
Intercept	Coefficient	0.0119	0.0125	0.0114
	t-stat	1.37	1.02	0.92
$R_{mt} - R_{ft}$	Coefficient	1.1130	1.0885	1.1329
	t-stat	29.82***	21.91***	20.79***
SMB_t	Coefficient	-0.0204	-0.0514	0.0049
	t-stat	-0.61	-1.07	0.11
HML_t	Coefficient	-0.0571	-0.0743	-0.0431
	t-stat	-0.71	-0.58	-0.43
Panel B. $R_{it} - R_{ft} = a_i + b(R_{mt} - R_{ft}) + s\,SMB_t + hHML_t + mUMD_t + e_{it}$;				
Intercept	Coefficient	0.0111	0.0136	0.0090
	t-statistics	1.25	1.06	0.74
$R_{mt} - R_{ft}$	Coefficient	1.0785	1.0293	1.1187
	t-stat	31.33***	23.57***	21.86***
SMB_t	Coefficient	-0.0645	-0.1116	-0.0261
	t-stat	-2.05**	-2.51**	-0.59
HML_t	Coefficient	-0.1693	-0.2139	-0.1329
	t-stat	-2.80***	-2.16**	-1.78*
UMD_t	Coefficient	0.0076	0.1799	-0.1330
	t-stat	0.13	1.84*	-2.08**

Table 5 shows the regression results of Fama-French 3- and 4-factor models for the Best CEO sample. The 3-factor model is applied by regressing the post-event daily excess returns for asset *i* on a market factor, a size factor, and a book-to-market factor. The 4-factor model is constructed by integrating the Fama-French (1993) 3-factor model with an additional factor capturing the one-year momentum anomaly reported by Jegadeesh and Titman (1993). We report their average regression coefficients from stock-by-stock regressions. To determine whether the regression coefficient is significantly different from zero, we calculate the *t*-statistic. The *t*-statistic is obtained by dividing the average coefficient by the cross-sectional standard deviation of the coefficient.

***,**, * indicate statistical significance at 0.01, 0.05 and 0.10 level, respectively.

Table 6. Buy-and-hold abnormal returns (BHARs) for the Best CEO sample

Sample	$\prod (1+R_{it})$	$\prod (1+E(R_{it}))$	BHAR	T-test
Panel A. Buy and hold abnormal returns (BHARs) compared with size and BE/ME match				
Best CEO Sample (n=138)	1.086	1.081	0.005	0.15
New CEO Sample (n=62)	1.105	1.144	-0.039	-0.77
Repeat Winner Sample(n=76)	1.072	1.032	0.040	0.91
Panel B. Buy and hold abnormal returns (BHARs) compared with Barron Match 1				
Best CEO Sample (n=138)	1.086	1.111	-0.025	-0.44
New CEO Sample (n=62)	1.105	1.182	-0.077	-0.94
Repeat Winner Sample(n=76)	1.072	1.054	0.018	0.40
Panel C. Buy and hold abnormal returns (BHARs) compared with Barron Match 2				
Best CEO Sample (n=101)	1.082	1.191	-0.109	-2.08***
New CEO Sample (n=46)	1.105	1.261	-0.156	-2.44**
Repeat Winner Sample(n=55)	1.062	1.132	-0.070	-1.48

Table 6 reports the BHARs for the Best CEO sample.Panel A reports the results of the Best CEO sample compared with size and BE/ME match, while Panel B (C) reports the results of the Best CEO sample compared with Barron match 1 (Barron match 2) portfolio. We test the null hypothesis that the BHARs are equal to zero with t-test statistic.

***,**, * indicate statistical significance at 0.01, 0.05 and 0.10 level, respectively.

Table 7. Changes of accounting performance one-year or three years after the announcement

Sample	1 year before (1)	1 year after (2)	Change (2) - (1)	T-test	3 years before (3)	3 years after (4)	Change (4) - (3)	T-test
Panel A. Change of ROA (%) after the announcement								
Whole Sample (1)	13.44	13.12	-0.92	-1.79*	13.29	12.21	-1.38	-2.31**
Size and BE/ME Match (2)	12.90	10.86	-1.92	-3.02***	12.64	10.41	-1.91	-3.19***
(1) - (2)	0.55	2.26	0.99		0.65	1.80	0.54	
Barron Match 1 (3)	21.01	56.97	27.66	0.87	15.74	86.74	65.93	0.95
(1) - (3)	-7.56	-43.85	-28.58		-2.45	-74.52	-67.30	
Barron Match 2 (4)	12.17	12.16	-0.34	-0.42	11.58	11.78	0.44	0.53
(1) - (4)	1.27	0.96	-0.59		1.71	0.43	-1.81	
New CEO Sample	13.42	14.28	0.56	0.82	13.04	12.79	-0.42	-0.47
Repeat Winner Sample	13.46	11.84	-2.38	-3.27***	13.50	11.53	-2.32	-2.96***
Panel B. Change of EPS growth rate (%) after the announcement								
Whole Sample (1)	15.49	27.06	15.13	0.63	38.51	25.24	-16.68	-0.62
Size and BE/ME Match (2)	10.61	-21.50	-23.52	-0.91	16.41	-23.39	-35.83	-2.31**
(1) - (2)	4.88*	48.57*	38.66		22.10*	48.63*	19.14	
Barron Match 1 (3)	33.33	12.11	-18.67	-0.32	44.86	-16.49	-56.66	-1.62
(1) - (3)	-17.85**	14.96*	33.80		-6.35**	41.73*	39.97	
Barron Match 2 (4)	33.09	4.19	-31.52	-1.63	30.43	-20.93	-56.67	-2.02**
(1) - (4)	-17.60**	22.87*	46.66		8.08**	46.17*	39.98	
New CEO Sample	4.18	11.02	-0.77	-0.08	47.58	-2.04	-57.42	-2.98***
Repeat Winner Sample	24.71	46.40	30.76	0.66	31.11	55.85	23.34	0.48

Table 7 reports the changes of accounting measures one year or three years after the announcement. We use two measures of operating performance, return on asset (ROA), and EPS growth. We test the null hypothesis that the changes are equal to zero with t-test statistics.

***,**, * indicate statistical significance at 0.01, 0.05 and 0.10 level, respectively.

Table 8. Daily returns of the Best CEO sample compared to the matched samples during different market conditions

	Up Days			Down Days		
	(0, 10)	(0, 20)	(0, 30)	(0, 10)	(0, 20)	(0, 30)
Mean Daily Returns (%)						
Best CEO (1)	0.358	0.208	0.183	-0.256	-0.129	-0.083
Size and BE/ME Match (2)	0.331	0.187	0.160	-0.220	-0.111	-0.066
(1) - (2)	0.027	0.021	0.023	-0.036	-0.017	-0.017
Barron Match 1 (3)	0.343	0.230	0.206	-0.162	-0.067	-0.033
(1) - (3)	0.016	-0.017	-0.024	-0.079*	-0.055*	-0.045*
Best CEO (4)	0.331	0.185	0.157	-0.248	-0.123	-0.085
Barron Match 2 (5)	0.385	0.245	0.213	-0.217	-0.086	-0.042
(4) - (5)	-0.053*	-0.059***	-0.056***	-0.031	-0.036*	-0.044***
Mean Daily Returns (%) per Unit of Risk						
Best CEO (1)	0.126	0.082	0.072	-0.067	-0.022	-0.008
Size and BE/ME Match (2)	0.130	0.087	0.080	-0.063	-0.026	-0.008
(1) - (2)	-0.003	-0.005	-0.007	-0.004	0.004	0.000
Barron Match 1 (3)	0.162	0.131	0.123	-0.054	-0.021	-0.009
(1) - (3)	-0.034**	-0.048***	-0.051***	-0.014*	-0.002	0.001
Best CEO (4)	0.128	0.081	0.070	-0.071	-0.023	-0.009
Barron Match 2 (5)	0.117	0.085	0.078	-0.054	-0.016	0.001
(4) - (5)	0.010	-0.003	-0.008*	-0.016**	-0.008	-0.010**

Table 8 reports the daily returns of the Best CEO sample compared to its matched samples during different market conditions. We define "up days" as the days when S&P 500 index rose by at least 2 percent compared to its previous day index level and "down days" as the days when S&P 500 index fell by at least 2 percent compared to previous day. From this criterion, we identified 66 up days and 80 down days in our sample period. Then, for each up day or down day, we retrieve the daily returns for both Best CEO firms and their matched firms within the period of 10 days, 20 days and 30 days, respectively after the market upturns or downturns. Then we compare the mean daily returns and the volatility of daily returns (measured by standard deviation of daily returns) of the Best CEO firms and their matched firms. We also calculate the mean daily returns per unit of risk by dividing the average daily return by the standard deviation of returns.

***,**, * indicate statistical significance at 0.01, 0.05 and 0.10 level, respectively.

Table 9. Changes of CEO compensation one year or three years after the announcement

Sample	1 year before (1)	1 year after (2)	Change (2) - (1)	T-test	3 years before (3)	3 years after (4)	Change (4) - (3)	T-test
Panel A. Change of CEO salary (dollars in thousands) after the announcement								
Best CEO Sample (1)	1,143	1,175	27	0.48	1,096	1,214	122	1.96*
Size and BE/ME Match (2)	1,107	1,226	117	1.50	1,110	1,233	117	1.80*
(1) - (2)	37	-51	-89		-14	-19	5	
Barron Match 1 (3)	766	666	60	1.50	671	674	99	2.66**
(1) - (3)	377***	509**	-33		425***	540***	23	
Barron Match 2 (4)	736	759	38	1.53	702	764	82	3.12***
(1) - (4)	407***	417***	-11		393***	450***	40	
New Listing Sample	1,187	1,262	55	0.50	1,148	1,288	155	1.43
Repeat Winner Sample	1,106	1,086	0	0.00	1,053	1,138	90	1.43
Panel B. Change of CEO bonus (dollars in thousands) after the announcement								
Best CEO Sample (1)	4,069	2,405	-2,446	-3.34***	3,986	1,839	-2,618	-3.76***
Size and BE/ME Match (2)	2,064	533	-2,063	-2.03**	2,078	768	-1,738	-2.92***
(1) - (2)	2,005*	1,872**	-382		1,907**	1,071*	-880	
Barron Match 1 (3)	315	267	-121	-1.00	382	120	-330	-3.09***
(1) - (3)	3,754***	2,137***	-2,324***		3,604***	1,719***	-2,288***	
Barron Match 2 (4)	737	577	-285	-0.64	788	265	-635	-2.50**
(1) - (4)	3,322***	1,827**	-2,160**		3,197***	1,574***	-1,984***	
New Listing Sample	3,432	2,200	-1,906	-2.14**	3,196	1,713	-2,034	-2.17**
Repeat Winner Sample	4,602	2,614	-2,985	-2.56**	4,637	1,969	-3,202	-3.09***
Panel C. Change of CEO total compensation (dollars in thousands) after the announcement								
Best CEO Sample (1)	19,670	15,265	-4,866	-3.83***	18,784	13,491	-5,113	-4.24***
Size and BE/ME Match (2)	15,273	12,395	-3,280	-2.12**	13,708	13,025	-1,016	-1.06
(1) - (2)	4,397	2,870	-1,585		5,076	466	-4,097	
Barron Match 1 (3)	5,746	3,584	-846	-1.15	4,730	4,089	149	0.15
(1) - (3)	13,914***	11,681***	-5,383***		19,110***	12,362***	-7,063***	
Barron Match 2 (4)	6,447	6,548	-224	-0.42	6,233	6,363	132	0.24
(1) - (4)	13,223***	8,717***	-4,614***		12,551***	7,128***	-5,245***	
New Listing Sample	21,590	17,559	-4,348	-2.53**	18,388	14,594	-3,162	-1.85*
Repeat Winner Sample	18,064	12,917	-5,383	-2.85***	19,110	12,362	-7,063	-4.24***

Table 9 reports the changes of CEO compensation one year or three years after the announcement. We use three measures of CEO compensation, CEO salary, CEO bonus and CEO total compensation. We test the null hypothesis that the changes are equal to zero with t-test statistics.
***,**, * indicate statistical significance at 0.01, 0.05 and 0.10 level, respectively.