When Is Good News Bad and Vice Versa? The *Fortune* Rankings of America's Most Admired Companies

Yingmei Cheng, Baixiao Liu, John J. McConnell, and Aaron Rosenblum¹

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Abstract

Prior theory postulates that media coverage can increase (decrease) the value of a manager's reputational capital and, as a consequence, enhance (diminish) his power to extract corporate resources for private consumption. An empirical implication that follows is that media events that increase (decrease) a manager's reputational capital are good (bad) news for the CEO and bad (good) news for shareholders. We examine these predictions using increases and decreases in *Fortune's* rankings of America's Most Admired Companies as a measure of media-induced changes in CEO's reputational capital. Consistent with the predictions, we find that increases (decreases) in ranking scores are associated with stock price decreases (increases). Further, and also consistent with the predictions, CEOs whose firms experience increases (reductions) in ranking scores experience increases (reductions) in compensation and in job tenure, and their firms undertake more (fewer) acquisitions and the acquisitions are less (more) value increasing.

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¹ Cheng, Liu, and Rosenblum are with the College of Business, Florida State University, 821 Academic Drive, Tallahassee, FL 32306. McConnell is with the Krannert Graduate School of Management, Purdue University, 403 West State Street, West Lafayette, IN 47907. Email: ycheng@fsu.edu, bliu@fsu.edu, mcconnj@purdue.edu, and ar10n@my.fsu.edu.

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1. Introduction

Zingales (2000) proposes that the media can play a role in corporate governance. Dyck, Volchkova, and Zingales (2008) formalize that proposition in a setup wherein the media play that role by influencing the value of managers' reputational capital.² In their setup, in making corporate decisions, the manager trades off the value of private benefits that will accrue to him by choosing a self-serving course of action against the costs to him of choosing that course of action in terms of lost reputational capital. The self-serving course of action is presumed to impose costs on shareholders. To the extent that the media heighten the manager's loss of reputational capital by commenting on and disseminating news regarding that choice, the manager is discouraged from choosing self-serving courses of action that economically harm shareholders.

In this framework, as in many others, decisions are made at the margin. Any event that perturbs the equilibrating marginal costs and benefits will bring forth a recalibration of the manager's trade-offs and, perhaps, a change in his behavior. One of the predictions that arise from this framework is that when managers take actions that are harmful to shareholders' interests, adverse media coverage of these manager-initiated actions can induce managers to reverse their decisions. This prediction has been studied empirically by Dyck et al. (2008), Kuhnen and Niessen (2012), Liu and McConnell (2013), and Dai, Parwada, and Zhang (2015).

Less well studied is a different type of event that can perturb the manager's equilibrium trade-off. That event is an exogenous media-initiated shock that either increases or decreases the value of the manager's reputational capital. Holding all else constant, a shock in media coverage that increases the manager's reputational capital is predicted to induce him to increase his consumption of private benefits at the expense of shareholders. Contrarily, holding all else

² See, for example, Fama (1980) and Fama and Jensen (1983).

constant, a shock that reduces the manager's reputational capital is predicted to induce him to take actions that reduce his consumption of private benefits to the advantage of shareholders.

In this study, we address empirically that less well explored prediction. We consider changes in the ranking scores of firms in *Fortune* magazine's list of America's Most Admired Companies. Each year since 1983 *Fortune* has asked senior executives, directors, and securities analysts to rate companies on eight dimensions. From these responses, *Fortune* assigns a score to each firm. These scores are then converted to rankings that yield the list of America's Most Admired Companies. Presuming that a change in ranking score confers upon the company's CEO an unexpected shock to his reputational capital, and holding all else constant, an increase in score is predicted to increase the CEO's consumption of private benefits at the expense of shareholders and a decrease in score is predicted to reduce the CEO's consumption of private benefits to the advantage of shareholders. That is, good news for the CEO is bad news for shareholders and vice versa.

Comments in the *New York Times* attributed to Mr. James Reda, a New York compensation consultant, provide a layman's summarization of the prediction as

Companies that made it onto *Fortune* magazine's list of 'most admired companies,' for instance, began to compare their pay to others on the roster. Never mind that the connection was irrelevant...The result was a lot of pay got jacked up...because they were in the 'most admired' candy store (*New York Times*, November 26, 2006, Section 3, Column 1, Pg. 1).

With these predictions in mind, we consider changes in the *Fortune* rankings for the years 1992–2012. Over this interval, the *Fortune* list contains 8,183 instances in which a company's ranking score either increased or fell from one year to the next. We examine the relation between changes in scores and simultaneous stock price changes of the companies being ranked using an event study methodology. Consistent with the trade-off proposition,

announcement period cumulative abnormal stock returns (CARs) are negatively and statistically significantly correlated with changes in *Fortune* ranking scores. For companies that experience an increase in score, over the 5-day interval surrounding publication of the list, the average CAR is -0.30% (t = -3.86); for those that experience a decrease in score, the average CAR is +0.20% (t = 2.37). Given the average equity market capitalization of the companies in the sample, the 0.50% difference in CARs equates to a market value difference of \$111 million.

We then explore possible channels through which CEOs might extract private benefits. We find that, on average, CEOs who experience an increase in ranking score experience an increase in the following year's compensation of \$1.51 million. This compares with an average decrease in compensation of \$0.72 million for those who experience a fall in their scores (t-statistic for the difference = 4.81). Using a benchmark model of CEO compensation, on average, for those that experience an increase in ranking score, \$1.10 million of the increase can be labeled an increase in "excess" compensation; CEOs who experience a drop in score experience a decrease of \$1.10 million in "excess" compensation (t-statistic for the difference = 4.22).

We further find that CEOs whose companies receive an increase in ranking score are 0.65% (t-statistic = 2.15) less likely to be involuntarily replaced during the following year than are those whose companies drop in score. Given that the unconditional probability of a CEO being involuntarily replaced in any year is 1.91%, the difference of 0.65% represents a decrease of 34.03% in the likelihood of the CEO being involuntarily replaced. In combination with the results of the event study, the analysis of CEO compensation and tenure does, indeed, imply, at least in this instance, that bad news for the CEO is good news for shareholders and vice versa.

We further explore the post-publication acquisition experience of companies in the list. We do so for two reasons. First, we do so because a frequently proposed explanation for instances in which companies undertake value-reducing acquisitions is that managers receive private benefits from firm growth (e.g., Jensen (1986, 1988), Lang, Stulz, and Walkling (1991), and Avery, Chevalier, and Schaefer (1998)). Second, although the difference in CEO compensation for firms that rose in score versus those that fell in score is certainly meaningful for the CEOs, it cannot explain the dollar difference in the changes in the market value of the firms' equity around the publication date of the Fortune list. Perhaps poor acquisition performance can help in that regard. We find that in the following year, a firm that experiences an increase in score is 4.43% (t-statistic = 4.36) more likely to undertake an acquisition than is a firm that experiences a decrease. Given that the unconditional probability of an acquisition in any year is 30.5%, the difference of 4.43% is an increase in the likelihood of an acquisition of 14.5%.³ Finally, the average announcement period CAR associated with acquisitions by firms that rise in ranking is -0.33% in comparison with an average CAR of +0.38% for those that fall in ranking (t-statistic for the difference = 4.93). In sum, the CEOs of firms that experience an increase in score are more likely to undertake acquisitions than are the CEOs of firms that experience a fall in score and the acquisitions are more likely to be value reducing.

Although it has been less well studied, the prediction that favorable media attention will induce managers to increase their consumption of private benefits at the expense of outside shareholders has not been ignored. In particular, Malmendier and Tate (M&T) (2009) study 264 instances in which media outlets bestow upon corporate executives a variety of awards. They cast up their analysis in terms of CEOs achieving "superstar" status which enhances their power allowing them to extract private benefits that can be harmful to other shareholders.

³ As an aside, and not of immediate concern to this study, the finding that increases (decreases) in the *Fortune* rankings are followed by an increased (decreased) incidence of value-reducing acquisitions lends tangential support to Roll's (1986) hubris hypothesis of corporate takeovers.

In favor of the hypothesis is that, following awards, on average, award-wining CEOs receive an increase in annual compensation, author more books, sit on more outside boards, and improve their golf scores. Arguably, a necessary condition to validate the hypothesis is that announcements of such awards are accompanied by an adverse stock price effect. On this point, the evidence is mildly disappointing. M&T report no announcement period (i.e., announcement day \pm 5 days) stock price effect. Over the 36 months following the granting of the awards, however, the stock prices of the CEOs' companies experience, on average, an absolute drop in stock price of 60% and underperform various benchmarks by 14.7% to 25.7% with much of this poor performance occurring during months 12–36. A critical reader, or one with a disposition toward accepting the efficient market hypothesis, might be skeptical of the interpretation that this poor performance is attributable to the granting of media awards. That is, a skeptic might argue that the announcement period effect is too small (i.e., zero) given the long-run bad news in the announcements (i.e., a decline in stock price on the order of 60% to 20%) and the long-run returns are too large and occur too far from receipt of the award (i.e., up to two years or more later) to be attributable to the award.

Our study differs from, but nevertheless complements, that of M&T on various dimensions. First, the *Fortune* ranking scores allow for CEOs to receive both positive and negative shocks to their media-established reputational capital. That is, the *Fortune* ranking scores allow for tests of both sides of the prediction regarding media-initiated shocks to reputational capital. Second, the *Fortune* rankings are from a single source in comparison with CEO awards from a variety of sources. There is, thus, a greater likelihood that the criteria used in establishing the scores is consistent across firms and through time. Third, the *Fortune* rankings are published annually at approximately the same time each year. As a consequence,

the timing of any shock associated with the ranking scores is likely to be orthogonal to any timeor firm-specific events. Each of these differences enhances the strength of the causal inferences that can be drawn from the results of the tests.

Of particular note, of course, is the difference in the event study results. A possible explanation for this difference is that the *Fortune* scores have been published on a regular basis for many years and our sample contains many observations. To the extent that investors learn of the effect of media awards from repeated observations, both of these factors are likely to enhance the power of our event study test. In that regard, the finding of roughly symmetric and opposite announcement period stock price responses to increases and decreases in scores is especially noteworthy. Our findings that the CEOs whose firms move down in ranking score experience an actual absolute decrease in compensation and an increase in the likelihood of involuntary termination are also new as is the finding that post-publication acquisitions of firms that move up in score experience an average negative announcement period CAR. Thus, while certain of the results of this study parallel some of those reported by M&T, this study presents a number of new and complementary findings.

Our work is also related, albeit indirectly, to the study by Focke, Maug and Niessen-Ruenzi (2016) of compensation paid to CEOs in the *Fortune* list of America's 100 Most Admired Companies. Focke et al. limit their analysis to the 100 Most Admired Companies and report that CEOs of these firms earn compensation of 8% to 10% less than their peers in otherwise comparable non-100 Most Admired Companies. Our compensation results are not directly comparable to those of Focke et al., but, to the extent that they are, our results, arguably, contradict theirs. The analyses are not directly comparable because Focke et al. compare the

compensation of CEOs of firms within the most admired list with the compensation of CEOs of peer firms not in the list at a point in time whereas our analyses examine changes in ranking scores through time of firms within the set of most admired companies. They report that CEOs of most admired firms are paid less and attribute that to the value of prestige associated with employment at a most admired company whereas we find that a move upward (downward) in ranking is associated with more (less) not less (more) pay. On that basis, the results of the studies could be, albeit not necessarily, considered contradictory.

To summarize: various studies report that the media influence corporate actions. Some of these studies temporally precede and others follow Dyck et al. (2008).⁴ One of the contributions of Dyck et al. is to identify a specific channel through which the media can influence managers: they do so by influencing the value of managers' human capital. One of the outcomes is that by influencing managers' human capital, the media can play a willful role in corporate governance. It turns out that the media can also play an inadvertent, and even perverse, role in corporate governance. Our study can be viewed as highlighting that inadvertent role. Our findings imply that positive (negative) media attention can, perhaps counter-intuitively, induce managers to undertake actions that are adverse (favorable) to shareholders' interests. A reasonable characterization of this phenomenon is the "unintended consequence" of media attention in that it is unlikely that the media grant awards to CEOs and their firms with the intention of harming shareholders.

The paper proceeds as follows. The next section describes the *Fortune* scoring system in greater detail and sets forth the data sources used in the analysis. Section 3 presents the results of the event study. Section 4 reports the results of the analysis of post-ranking CEO

⁴ Such studies include, but are not limited to, Farrell and Whidbee (2002), Core, Guay, and Larcker (2008), Joe, Louis, and Robinson (2009), Kuhnen and Niessen (2012), Liu and McConnell (2013), and Dai et al. (2015).

compensation, CEO turnover, firms' acquisition activity, and the firms' acquisition performance. This section also presents the results of difference-in-difference tests that address certain concerns regarding endogeneity. Section 5 describes various robustness tests. Section 6 briefly summarizes and concludes.

2. Sample and data sources

Underlying the Dyck et al. (2008) proposition is the presumption that the information contained in media coverage of managerial actions is not fundamentally new. Rather, the media have an effect on managerial reputational capital by amplifying news regarding managerial actions and by shaping perceptions of those actions. The *Fortune* ranking scores fit that characterization. The scores are created from the responses to survey questionnaires conducted by the Hay Group on behalf of *Fortune*. Presumably survey respondents are responding to publicly available information at the time they complete their questionnaires. Thus, the "news" in the scores is the scores themselves.

The scores have been compiled annually since 1983 from surveys sent to executives, directors, and security analysts. The survey is sent to approximately 8,000 potential respondents and, on average, the survey response rate is 50%. The firms to be rated come from the *Fortune* 1,000 list of companies. For each industry, the 10 largest companies, as determined by their annual revenue, are identified for ranking. Potential survey respondents are assigned to an industry, and security analysts are assigned to the industry or industries that they cover. Each potential respondent is asked to rate the 10 firms in his or her industry from 1 to 10 on eight dimensions.⁵ In some years the *Fortune* 1,000 does not include 10 firms for each industry. In

⁵ The eight dimensions include quality of management, quality of products or services, innovativeness, long-term investment value, financial soundness, ability to attract, develop, and keep talented people, responsibility to the

those years and for those industries, the respondents are asked to rate fewer than 10 firms.

A firm that is ranked #1 by a respondent receives a score of 10 on that dimension. A firm that is ranked #2 receives a score of 9 on that dimension and so on. A score for the firm is computed as the simple average of the scores given to it by survey respondents (ranging from 1 to 10). The scores and rankings of the 10 firms in each industry are published in the February or March issue of *Fortune* under the title of America's Most Admired Companies. The change in these scores is the key independent variable in our analysis.

While the eight characteristics on which the list of Most Admired Companies is based have not changed through time, the number of industries into which firms are classified has. As shown in Table 1, the year with the fewest industries is 1992 with 32 industries and 307 firms. The year with the most industries is 2003 with 66 industries and 587 firms. The number of firms is less than the number of industries multiplied by 10 because in some years and for some industries, the *Fortune* 1,000 contains fewer than 10 firms.

In general, the number of industries has increased through time. There are some years, however, in which an industry is not reported even though it had been reported in the prior year. This occurs when, according to *Fortune*, there are too few respondents to calculate meaningful scores. We manually assemble the lists of most admired companies and their scores from the hard copies of *Fortune* for the years 1992-2012. Table 1 reports summary statistics of changes in the *Fortune* ranking scores by year. Across all years, the average absolute change in ranking scores is 0.45 with a standard deviation of 0.43.

We chose the starting year as 1992 because one statistic of interest to us is CEO compensation. We use *Execucomp* for these data and *Execucomp* provides these data beginning with 1992. The sample ends with 2012 as that was the most recent year for which the *Fortune*

community and the environment, and wise use of corporate assets.

lists were available when we commenced this study. Daily stock returns are extracted from *CRSP* and accounting data are from *Compustat*. Data on acquisitions are from *Thompson Reuters SDC Database*. Information on CEO compensation and turnover is from *Execucomp* and *LexisNexis Academic Universe*. Data on CEO/Chairman duality are from *RiskMetrics*.

3. Market responses to changes in *Fortune* ranking scores

In this section, we report the results of an event study surrounding publication of the *Fortune* ranking scores. Over the 21 years for which we have data, in 8,183 instances a firm experienced a change in its ranking score from one year to the next.⁶ Of these, 4,001 firms experienced an increase in score and 4,182 experienced a decrease. The event study tests the potentially counterintuitive propositions that an increase in score will be associated with a reduction in shareholder value and that a decrease in score will be associated with an increase in shareholder value. Although potentially counterintuitive, the predictions follow from the Dyck et al. (2008) framework in which a positive media shock increases the CEO's reputational capital which, in turn, allows him to extract private benefits that are costly to shareholders while, on the other side of the coin, a negative media shock reduces his reputational capital which reduces his power to extract private benefits to the advantage of shareholders.

The publication date of the relevant *Fortune* issue is day 0. We calculate CARs over various intervals using the Fama-French-Carhart four-factor model to estimate expected returns for individual firms. For each year, the model is estimated using daily stock returns beginning 42 trading days following publication of the *Fortune* issue containing the prior year's annual rankings. We allow for the passage of 42 trading days to alleviate concerns that the model parameters could be influenced by the changes in the annual rankings. The estimation interval

⁶ We exclude 58 instances in which a firm had the same score from one year to the next.

ends at 22 trading days prior to the publication of the *Fortune* issue containing the relevant year's scores and rankings. The maximum number of trading days is 189 for any estimation interval. We require a minimum of 126 trading days (i.e., six calendar months) to estimate the parameters. Because of insufficient daily stock returns, 22 firms with ranking score changes are not included in the event study.

The summed difference between the actual return and the predicted return of the stock is the CAR over the specified interval. Mean and median CARs over various intervals and their tstatistic are reported in Table 2 along with the fraction of CARs that is positive. Because of event date clustering, t-statistics are based on the estimation period time series standard error of daily portfolio average CARs.⁷

Of particular interest are the CARs immediately surrounding the publication date. Over the interval of day -2 through day +2, for firms that experience a decrease in score, the mean CAR is +0.20% with a t-statistic of 2.37. The median CAR is +0.21% and 65% of the individual CARs are positive. In comparison, over the same interval, for firms that experience an increase in ranking score, the mean CAR is -0.30 % with a t-statistic of -3.86. The median CAR is -0.21% and 42% of the individual CARs are positive. The t-statistic for the difference in event period mean CARs is 4.34. Thus, the event study results are consistent with the predictions that follow from Dyck et al.

Certain other results in the table are also supportive of that interpretation. For example, over the interval of day -10 through day -3, for firms that experience a decrease in score, the mean CAR is 0.06% with a t-statistic of 0.63. This suggests that the average negative CAR over the interval of day -2 through day +2 is not due to a "drift" in CARs resulting from model misspecification. Similarly, over the same interval, for firms that experience an increase in score,

⁷ See Campbell, Lo, and MacKinlay (1997), pp. 166-167)

the mean CAR is 0.05% with a t-statistic of 0.64, again suggesting that the event interval CARs are not due to model misspecification.

We likewise calculate CARs over days +3 through +10. For the firms that experience a decrease in score, the mean CAR is 0.02% with a t-statistic of 0.18; for firms that experience an increase in score, the mean CAR is 0.04% with a t-statistic of 0.54. Neither of these is statistically significantly different from zero.

Finally, we use monthly returns (i.e., 21 trading day returns) to calculate CARs beginning 11 trading days following publication of the list of Most Admired Companies through 11 trading days prior to publication of the subsequent *Fortune* list (i.e., an interval of approximately 11 months). For firms that experienced increases in ranking scores, the mean CAR is -0.25% with a t-statistic of 0.31; for firms that experienced decreases in scores, the mean CAR over these 11 months is +0.93% with a t-statistic of 1.09. In both instances the mean "long-run" CARs are not statistically different from zero. These long-run CARs are useful in two respects. They indicate that the significant event period CARs are not due to model misspecification. And, to the extent that firms' valuations are affected by changes in *Fortune* rankings, the effect occurs immediately surrounding the publication date of the list and the effect is not reversed shortly thereafter.

The economic importance of the announcement period CARs can be considered in (at least) two ways. First, assuming a 250 trading-day year, the 5-day difference in mean excess returns of 0.50% between firms that increase in score and those that fall in score translates into an annualized difference in abnormal returns of 25%. Second, given that the average market value of equity of firms in the sample is approximately \$22.2 billion, the difference in CARs of 0.50% implies a differential change in market value of approximately \$111.0 million. Of course,

economic significance lies in the eye of the beholder. From our perspective, for the shareholders involved, these differences in value are consequential.

In sum, changes in equity values surrounding publication of *Fortune* magazine's list of America's Most Admired Companies are consistent with an increase in ranking score conferring upon the company's CEO an unexpected shock to his reputational capital that leads to an increase in his power to extract private benefits to the detriment of shareholders while a decrease in score strips the CEO of some of his reputational capital that reduces his power to extract private benefits to the advantage of shareholders. That is, bad news for the CEO is good news for shareholders and vice versa.

4. **CEOs' private benefits**

Accepting the supposition that the announcement period CARs are economically meaningful along with the evidence that they are statistically significant supports one component of the proposition that a negative (positive) shock to CEO reputational capital reduces (increases) his power to extract private benefits to the advantage (detriment) of shareholders. To wit, changes in *Fortune* ranking scores are associated with changes in shareholder wealth of the predicted signs. We now consider the question of whether CEOs gain or lose.

4.1 CEO compensation

Perhaps the most direct way in which CEOs gain or lose is through annual compensation. That is where we begin. For each calendar year in which a firm appears in the *Fortune* list, we retrieve the CEO's prior fiscal year compensation from *Execucomp*. Thus, for example, if the firm appears in the February 2000 issue and its 1999 fiscal year ends with December 1999, we collect the fiscal 1999 compensation as year t-1. We then retrieve from *Execucomp* fiscal year 2000 compensation as year t. We investigate the change in compensation from year t-1 to year t conditional on the CEO's firm experiencing an increase or decrease in its *Fortune* ranking score. Because we require two consecutive years of compensation data for the same CEO of the same company, the sample declines to 6,758 observations of changes in ranking scores. Of these, 3,427 represent increases in score and 3,331 represent decreases in score.

Total annual compensation is the sum of salary, bonus, long-term incentive plan payouts, the value of restricted stock grants, and the value of options granted during the year. Results of the analysis of CEO total compensation are reported in panel A of Table 3.

For those CEOs whose firms experience a decrease in score, the mean change in compensation from year t-1 to year t is -\$0.72 million with a t-statistic of -2.27, the median change is -\$0.25 million, and 42.8% of the changes are positive. For those firms that experienced an increase in score, the mean change in CEO compensation is \$1.51 million with a t-statistic of 4.46, the median change is \$0.39 million, and 60.4% of the changes are positive. The t-statistic for the difference in mean annual compensation is 4.81. Each of these results is consistent with the idea that an increase in *Fortune* ranking score increases the CEO's ability to extract private benefits while a decrease in score has the opposite effect.

The raw changes in annual compensation are interesting and informative. Especially interesting is the finding that decreases in ranking score are followed by actual decreases in compensation. From an economic perspective, a more telling statistic is the change in the CEO's "excess" compensation where excess compensation is his compensation after controlling for other factors that influence the CEO's annual compensation.

To calculate annual excess compensation, we estimate a model of annual compensation wherein the residual is the CEO's excess compensation. The dependent variable in the panel regression is CEO compensation in year t. The estimation includes 5,811 observations for which data are available for the independent variables. Independent variables are from *Compustat* and *CRSP*. Definitions of the independent variables are given in Appendix A. In this estimation, variables from *Compustat* include *LgAssets*, *Leverage*, *Tobin's Q*, *RD/sales*, *CAPX/sales*, *Advertising/sales*, and *Industry-adjusted ROA*. Variables from *CRSP* include *Firm age*, *1-year abnormal stock returns*, and *Stock return volatility*. The independent variables employed in the model follow from Aggarwal and Samwick (1999), Bertrand and Mullainathan (1999), and Masulis, Wang, and Xie (2009).

Results of the analysis of excess compensation are given in panel A of Table 3. For CEOs whose firms experience an increase in *Fortune* ranking score, the mean change in excess compensation is +\$1.14 million with a t-statistic of 2.60, the median change is +\$0.38 million, and 59.4% of the changes are positive. For CEOs whose firms experience a decrease in ranking score, the mean change in annual excess compensation is -\$1.12 million with a t-statistic of -2.71, the median change is -\$0.36 million, and 48.6% of the changes are positive. The difference between the average change in excess compensation of those CEOs whose firms experience an increase in score and those whose firms experience a decrease in score is \$2.26 million with a t-statistic of 3.75. Thus, after controlling for other factors that have been shown to influence changes in CEOs' annual compensation, on average, CEOs whose firms experience an increase in *Fortune* ranking score receive an increase in annual compensation of approximately \$2.26 million more than those whose firms experience a decrease in *Fortune* ranking score. Or, to put it more emphatically, on average, those CEOs whose firms experience a decrease in score score experience a decrease in score is score.

whose firms experience an increase in score. Given that the mean annual compensation of CEOs in the sample is \$9.28 million, this difference represents 24.4% of annual compensation.

To estimate the sensitivity of changes in annual compensation to changes in *Fortune* ranking score, we estimate a panel regression in which the dependent variable is the change in annual compensation and the independent variables include the change in the annual *Fortune* ranking score along with the independent variables from above except that the *Compustat* variables are in annual change form. The results of this analysis are given in panel B of Table 3. As shown in the table, the coefficient of the change in *Fortune* score is positive and statistically significant (t-statistic = 3.45). To give the coefficient economic content, a one standard deviation change in *Fortune* score translates into a change in annual compensation of \$1.45 million.

4.2 CEO turnover

Our analysis of CEO compensation requires that the CEO remain in office for at least 12 months following the change in ranking score. Most likely, a loss of his position is even more adverse for the CEO than is a reduction in pay. And, on the flipside, an extension of his term in office beyond the term that would be expected given his performance could very well be more valuable than an increase in pay. For these reasons, we consider the likelihood of turnover in the CEO position during the 12 months following a change in *Fortune* ranking score.

We first consider all turnover in the CEO position excluding turnover due to death. We then consider involuntary turnover. We undertake the analysis in this way because relatively few instances of CEO turnover are clearly identified as involuntary turnover implying that some turnover that is not identified as such is, in actuality, involuntary. We then examine instances that can be reasonably identified as involuntary. The use of all turnover clearly overstates the instances of involuntary turnover. The use of only instances that can be reasonably identified as involuntary turnover undoubtedly understates involuntary turnover. The question is whether either measure is correlated with changes in ranking scores.

We use *Execucomp* to identify all instances in which a company in *Fortune's* list of America's Most Admired Companies experiences turnover in the CEO position over the years 1992-2012. *Execucomp* reports the name of the CEO as of each fiscal year-end. Because we are interested in changes in ranking scores, in order for an incidence of turnover to be included in the analysis, we require that the relevant firm appear in two consecutive *Fortune* lists. We consider turnover to have occurred during the fiscal year following the *Fortune* list if the name of the CEO changes between the fiscal year-end prior to the publication of the list and the subsequent fiscal year-end. The sample includes 911 instances of CEO turnover. Of these, 37 are identified as occurring due to the death of the CEO as reported by *Execucomp*.

Of the remaining 874 instances of turnover, 385 occurred during the 11 months following an increase in *Fortune* score and 489 occurred following a decrease in score. These results indicate that, in firms that experience an increase in *Fortune* ranking score, the likelihood that the firm experiences CEO turnover during the period prior to the next *Fortune* ranking publication is 9.62%. In contrast, in firms that experience a decrease in score, the likelihood is 11.84%. As reported in panel A of Table 4, the z-statistic for the proportion test is 3.03. Thus, turnover in the CEO position is significantly more likely to occur following a decrease in ranking score than an increase in ranking score.

With this list we search *LexisNexis Academic Universe* to identify instances of involuntary turnover. *LexisNexis Academic Universe* provides full-text coverage of general news, business news, legal filings, and government documents. Its sources include major U.S.

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newspapers, trade journals and magazines, corporate news releases, court records, public government records, major financial databases, certain non-U.S. news sources, and others. For each incidence of turnover, we search the database by the name of the relevant CEO and the name of his firm during the fiscal year in which the turnover occurred, the prior fiscal year, and the subsequent fiscal year.

Separating CEO turnover into voluntary and involuntary is a multi-step undertaking. Any document that contains the CEO's name and the name of his firm is read. To begin, for all turnover, any instance in which any news source reports that the CEO was "fired," was "forced" from his position, or resigned amidst controversy including policy differences with the board, legal difficulty or scandal is classified as involuntary.⁸ For the remaining turnover, regardless of the age of the CEO, any instance in which the turnover is preceded by an announced succession plan or an announcement of the CEO's intention to retire more than five months prior to the turnover is classified as voluntary as is any turnover due to poor health or death of the CEO. Further, any instance of turnover in which the CEO is less than 60 years of age and no announcement of a plan to take another position within the firm or elsewhere can be identified is classified as involuntary.⁹ This classification procedure gives rise to 156 incidences of turnover classified as involuntary. Of these, 63 occurred following an increase in *Fortune* ranking score and 93 occurred following a decrease in ranking score. These results indicate that, in firms that experience an increase in *Fortune* ranking score, the likelihood that its CEO will be involuntarily replaced during the period prior to the next *Fortune* ranking publication is 1.57%. In

⁸ A scandal can include personal and professional scandals. An example of the former is Automatic Data Processing Inc.'s former CEO, Gary C. Butler, who was arrested on criminal charges of domestic violence three days before the announced retirement (http://www.wsj.com/articles/SB10001424052970204517204577044770489425182). An example of the latter is Hewlett Packard's Board firing CEO Mark Hurd because the board found that Hurd acted inappropriately with a subordinate and had caused the company to pay thousands of dollars to facilitate this inappropriate behavior (http://www.businessinsider.com/mark-hurd-jodie-fisher-hp-2011-12).

⁹ Our procedure for identifying involuntary turnover is similar to the procedure used by Parrino (1997).

comparison, in firms that experience a decrease in score, the likelihood is 2.22%. The z-statistic for the proportion test is 2.15. Thus, as with all turnover, involuntary turnover is significantly more likely to occur following a decrease in ranking score than following an increase in score. Given that the unconditional probability of CEO turnover in any year is 1.91%, the difference in the likelihood of turnover of 0.65% between firms that experience an increase in score and those that experience a decrease in score represents a change of 34.03%.

To control for other factors that may influence turnover, we estimate logit models. In the first estimation, the dependent variable is an indicator set to 1 for any firm year (year t) in which CEO turnover, excluding turnover due to death, occurred and 0 otherwise. In the second estimation, the dependent variable is set to 1 in any firm fiscal year in which an involuntary turnover occurred and 0 otherwise. The independent variables include *CEO/Chair duality* (from *RiskMetrics*), *CEOAge* (from *Execucomp*), *CEOTenure* (from *Execucomp*), *pre-BHR*, and *post-BHR* (from CRSP). The independent variables employed in the model follow from Engel, Hayes, and Wang (2003) and Farrell and Whidbee (2003).

The results of the logit model estimations are presented in panel B of Table 4. Column 1 gives the results of the logit in which the dependent variable represents any incidence of turnover. Column 2 reports the results of the logit in which the dependent variable represents incidences of involuntary turnover. The coefficient of the change in ranking score is negative and statistically significant in both estimations with t-statistics of -4.01 and -2.56, respectively. To give an indication of the economic significance of the coefficients, for the regression reported in column 1, a one standard deviation decrease in score implies an increase of 0.45% in the likelihood of CEO turnover during the period prior to the publication of the next *Fortune* ranking. Given that the unconditional probability of turnover for reasons other than death during

this interval is 10.8%, a one standard deviation fall in score represents an increase in the probability of turnover of 4.2%. For the coefficient reported in column 2, a one standard deviation decrease in score implies an increase of 0.34% in the likelihood of involuntary CEO turnover during the period prior to the publication of the next *Fortune* ranking. Given that the unconditional probability of involuntary turnover during this interval is 1.91%, a one standard deviation fall in score represents an increase in the probability of involuntary turnover of 17.8%.

In sum, both changes in CEO compensation and CEO turnover are statistically significantly correlated with changes in *Fortune* ranking scores. As always, whether the statistical difference is economically significant lies in the eye of the beholder. From our perspective, a 17% to 18% change in the likelihood of being replaced is economically consequential as is a 24% change in pay. These data indicate that CEOs lose as ranking scores fall and vice versa.

4.3 Acquisition activity

Empire building on the part of CEOs is one, among many other, proposed explanations for corporate acquisitions. The idea is that CEOs benefit, either monetarily or psychically, from managing larger firms (Jensen (1986, 1988), Lang et al. (1991), and Avery et al. (1998)). If so, one way in which CEOs can extract private benefits is to increase the sizes of their firms through acquisitions. The prediction, then, within the Dyck et al. (2008) framework, is that an increase in *Fortune* ranking score will allow (or induce) a CEO to undertake more acquisitions. Contrarily, a decrease in score is predicted to reduce the incidence of acquisitions as the CEO's power to extract private benefits is diminished. We, thus, investigate whether the likelihood that firms undertake acquisitions is related to changes in their *Fortune* ranking scores.

To create our sample, we access *Thompson Reuters SDC Database* to identify firms that appear in the Fortune list in year t that announce acquisitions after publication of the list in year t and before publication of the list in year t+1. To remain in the sample, the deal value, as reported by SDC, must be at least 1% of the acquirer's market value of assets as of the end of fiscal year t-1 where the market value of assets is as defined in Appendix A; the acquirer must own less than 50% of the target's shares prior to the announcement of the transaction; and the acquirer must own more than 50% of the target's shares after the transaction. These screening criteria give rise to a sample of 5,788 acquisitions. Of these, 3,142 are acquisitions by 1,311 firms that experienced an increase in score and 2,646 are by 1,185 firms that experienced a decrease in score. Recalling that 4,001 of the firms in the *Fortune* lists experienced increases in score and 4,130 experienced decreases in scores, the probability that a firm that moved up in score made an acquisition in the year following publication of the *Fortune* list is 32.8% in comparison with a probability of 28.7% for a firm that fell in score. As reported in panel A of Table 5, the 4.1% difference has a proportion test z-statistic of 4.35. On that basis, acquisitions are statistically significantly less likely to occur in firms that experience a decrease in score than in those that experience an increase in score. Given that the unconditional probability of a ranked firm undertaking an acquisition in any year is 30.7%, the 4.1% difference between those that move up and those that move down in ranking score represents a difference of 13.0% in the probability of undertaking an acquisition.

To control for other factors that influence the likelihood of firms undertaking acquisitions, we estimate two models. The first is a logit model in which the dependent variable is set to 1 if the firm made an acquisition in year t and zero otherwise. The second is an ordered logit model in which the dependent variable is the number of acquisitions undertaken by the firm

in year t with a maximum number of four. The benefit of the ordered logit is that the values of each category have a meaningful sequential order where a firm making two acquisitions is "more active" than a firm making one acquisition; a firm making three acquisitions is "more active" than a firm making two and so on. The sample includes every firm that experienced a change in its year-to-year *Fortune* ranking score during 1992-2012.

The key independent variable is the change in the *Fortune* ranking score. As in Faccio and Masulis (2005), the other independent variables, as defined in Appendix A, all taken from *Compustat*, include *Leverage*, *Collateral*, *NWC/Total assets*, *Cash/Total assets*, *(CAPX+RD)/Total assets*, *Asset growth*, *M/B*, *LgAssets*, and *High-tech*.

The results of the estimations are reported in panel B of Table 5. Column 1 gives the results of the logit model. Column 2 reports the results of the ordered logit. In both columns, the coefficient of the change in ranking score is positive and statistically significant with t-statistics of 3.55 and 3.56, respectively. To give an indication of the economic significance of the coefficients, based on the coefficient in column 1, a one standard deviation decrease in score implies a decrease of 1.89% in the likelihood of the firm undertaking an acquisition during the period prior to the next *Fortune* ranking. Given that the unconditional probability of a Most Admired Company undertaking an acquisition in any year is 30.7%, the decrease in the likelihood associated with a one standard deviation decline in *Fortune* score is 6.2%.

Thus, the logit estimations indicate that, after controlling for other factors that have been shown to predict the likelihood of an acquisition, the change in *Fortune* ranking score is statistically significantly negatively correlated with the likelihood of the relevant firm undertaking an acquisition in the near future. Thus, after controlling for other factors that have been associated with the propensity for firms to undertake acquisitions, firms that move down in score are less likely to undertake acquisitions over the next 12 months than are those that move up in score.

4.4 Acquisition performance

A second prediction and, arguably, the more important one regarding takeover activity is that the gains to acquisitions will be lower (and perhaps even negative) for acquisitions that follow increases in *Fortune* scores than for those that follow decreases in scores. That is, increased frequency of takeovers is not, in itself, detrimental to shareholders if the takeovers are value increasing for the acquiring firm. To consider whether they are, we calculate CARs over the 5-day interval surrounding announcements of acquisitions where the announcement dates are taken from *SDC*. As above, we use the Fama-French-Carhart 4-factor model to calculate CARs along with stock returns from *CRSP*.

For each firm that announced an acquisition, we calculate announcement period CARs. We are interested in CARs for acquisitions that occurred following publication of a *Fortune* list and before publication of the subsequent list. The CARs are presented in panel A of Table 6. For firms that experience a decrease in *Fortune* ranking score, the mean announcement period CAR is +0.38% with a t-statistic of 3.56, the median CAR is +0.17%, and 60% of the CARs are positive. For firms that experienced an increase in score, the mean announcement period CAR is -0.33% with a t-statistic of -3.40, the median CAR is -0.11%, and 38% of the CARs are positive. The t-statistic for the difference between the mean CARs is 4.93. Given that the mean market value of equity of the acquirers is \$83.1 billion, the difference between mean CARs of 0.71% represents a non-trivial \$589 million.

To control for other factors that have been associated with acquisition announcement period CARs, we estimate regressions. We first estimate panel regressions where each firm-year

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observation in the sample is included. The results of the regression are reported in panel B of Table 6. In column 1, the dependent variable is the sum of the announcement period CARs for acquisitions that the firm announced during year t. In column 2, the dependent variable is the mean CAR for acquisitions that the firm announced during year t. We then estimate acquisition-based regressions in which each of the acquisitions enters as a separate observation. In these regressions, as reported in columns 3 and 4, the dependent variable is the acquirer's CAR for that acquisition.

The key independent variable in each regression is the change in *Fortune* ranking score of the acquirer in year t. The other independent variables are measured as of the end of year t-1. The data used to compute the independent variables are from *Compustat* and *SDC*. The variables from *Compustat* are *Assets*, *Tobin's Q*, *ROA*, and *Leverage*. The variables from *SDC* are *Relative*, *Conglomerate*, *Public*, *Private*, *All cash*, *All stock*, *Competing bidder*, *Hostile takeover*, and *Tender offer*. The independent variables are based on Moeller, Schlingemann, and Stulz (2004).

As shown in the table, each of the coefficients of the change in *Fortune* ranking score is negative with t-statistics of -4.01, -1.98, -5.68, and-2.91, respectively. As an example of economic importance, based on the coefficient in column 4, a one standard deviation increase in *Fortune* ranking score decreases the acquisition announcement period CAR by 0.37%. Given an average market value of equity of ranked firms of \$22.2 billion, a one standard deviation change in *Fortune* ranking translates into a change in market value of \$82.1 million.

In sum, analysis of acquisition likelihood and changes in equity values around acquisition announcements indicates that increases in *Fortune* ranking scores are associated with a greater propensity for firms to undertake acquisitions than are decreases in scores and that the acquisitions have lower and even negative CARs. If empire building is a perquisite of powerful CEOs and acquisitions are a way of building empires, the acquisition data support the idea that, on average, decreases in *Fortune* rankings are adverse to CEOs and increases in scores are beneficial for them. The acquisition data suggest that the opposite is true for outside shareholders. That is, the acquisitions data indicate that good news for CEOs is bad news for shareholders and vice versa. These results, too, are consistent with the predictions that follow from Dyck et al.

4.5. Causality

We have argued that annual changes in the *Fortune* ranking scores are likely to represent exogenous shocks to the respective companies' CEOs' reputational capital. That proposition is based on the twin pillars of (1) the timing of the rankings publications being exogenous to the firms being ranked and, thereby, unlikely to be correlated with the timing of firm-specific events that influence CEOs' reputational capital and (2) the rankings being based on already-existing and identifiable information about the firms being ranked and, thereby, unlikely to provide new information to market participants other than the rankings themselves.

The results of the event study of stock prices around publication of the rankings support that proposition. Accepting the proposition that changes in *Fortune* rankings cause changes in CEOs' reputational capital, however, does not rule out a different source of concern. It is possible that, other than the changes in the CEO's reputational capital, a third unidentified factor causes all of the other observed phenomena. That is, it is possible that some other unidentified factor, which is correlated with the changes in ranking scores, causes the changes in compensation, the changes in the likelihood of CEO termination, the changes in the likelihood of acquisitions, and the changes in the announcement period CARs around acquisition announcements.

To lessen concerns with that possibility, we conduct difference-in-difference tests on four items. These are the change in excess CEO compensation, involuntary CEO turnover, the acquisition propensity of the CEOs' firms, and the CARs of the CEOs' firms around acquisition announcements for firms that are in the rankings in consecutive years. We consider the differences in these measures, each of which is a change in an item of interest, between year t-1 and year t for firms that experience a decrease in score in year t-1 followed by an increase in score in year t. We then consider differences in these measures between year t-1 and year t for firms that experience in score in year t-1 followed by a decrease in score in year t. Finally, we compare the differences in these differences. The results are presented in Table 7.

As reported in column 1 of Table 7, on average, when a firm experiences a decrease in score in year t-1 followed by an increase in score in year t, the CEO experiences an increase in the change of excess compensation of \$2.10 million and a decrease in the likelihood of being involuntarily replaced of -0.15%, while his firm experiences an increase in the number of acquisitions completed of 0.04 and a decrease in the sum of acquisition CARs of -0.61%.¹⁰ Most of these changes are statistically significant with t-statistics of 3.09, -1.73, 1.22, and -3.70, respectively.

Conversely, as shown in column 2, on average, when a firm experiences an increase in score in year t-1 followed by a decrease in score in year t, the CEO experiences a decrease in the

¹⁰ To be precise, and for clarity, the change in excess compensation is (excess compensation in year t less the excess compensation in year t-1) less (excess compensation in year t-1 less the excess compensation in year t-2). In this instance, the numbers are (\$9.85 - \$8.90) – (\$8.90 - \$10.03) = \$2.10 million. The other items are already in change form such that, for example, the change in the likelihood of involuntary replacement is (involuntary replacement likelihood in year t less involuntary replacement likelihood in year t-1). In this instance, the numbers are (1.61% - 1.76%) = -0.15%

change in excess compensation of -\$4.01 million and an increase in the likelihood of being involuntarily replaced of 0.26%, while his firm experiences a decrease in the number of acquisitions completed of 0.15 and an increase in the sum of acquisition CARs of 0.60%. Most of these changes are also statistically significant with t-statistics of -3.20, 1.37, -3.98, and 3.66, respectively.

The results of the difference-in-difference tests are given in column 3. In each case, the difference-in-differences is statistically significant with t-statistics of 4.25, -2.20, 3.85 and -5.21. The difference-in-difference results sharpen the inference that the observed changes in CEO compensation, CEO tenure, and CEO acquisition decisions are caused by changes in *Fortune* rankings and the corresponding media-induced shocks to CEOs' reputational capital rather than an unidentified factor that happens to be correlated with the changes in ranking scores.

5. Additional robustness tests

The primary conclusion of this study is that increases (decreases) in *Fortune* ranking scores that increase (decrease) a manager's reputational capital are good (bad) news for the CEO and bad (good) news for shareholders. In this section, we discuss various robustness tests of this evidence to address certain concerns. The results of these tests are tabulated and presented in an online Appendix.¹¹

5.1. Confounding events around publication of Fortune rankings

The first concern is that companies could be releasing other news around the publication of the *Fortune* rankings. Indeed, such news releases could be strategic. When the management of a firm expects to move up in ranking, the firm may strategically choose to release bad news

¹¹ Available at <u>http://www.krannert.purdue.edu/faculty/mcconnell/publications_john.php</u>

and when management expects to move down in ranking, the firm may elect to release good news. In the former case, management hopes that the good news will dampen the negative effects of the downgrade by *Fortune*; in the latter instance, management may hope that the good news release will overcome the negative effects of the *Fortune* downgrade. If this were the case, it is inappropriate to hold the change in ranking accountable for abnormal stock price performance incurred around the publication. To address this concern, we search the *Dow Jones Newswire* to identify firms with any appearance on the newswire at any time during the period of 10 days before through 10 days after the *Fortune* ranking publication. We drop these from the analyses and conduct our tests with the remaining 6,327 firm-year observations.

The results are very similar in terms of both the signs and the significance to those reported in Tables 2-6. We, thus, conclude that the results are not due to instances in which there are confounding events around the publication of the *Fortune* rankings.

5.2. Changes in Fortune ranking

The second concern that we address relates to our choice to use changes in *Fortune* ranking scores rather than changes in rankings per se in our analysis. We choose scores rather than ranks because the *Fortune* rankings are by industry and the number of industries in the *Fortune* rankings has increased through time. When this occurs, a firm's industry may change, thus, its raw rankings are not comparable from one year to the next. For example, a firm may be ranked in 6th place in industry A, but move into 2nd place in industry B when industry A is split into two industries. In such instances, however, the firm's score is not affected by the expansion of industries. For that reason, ranking scores are more comparable across years than are rankings. Nevertheless, we conduct our tests using the changes in raw rankings. For these tests, the

number of observations is the same as when we use ranking scores. The results are very similar in terms of both the signs and significance levels to those presented in Tables 2-6.

5.3. Outlier observations

A third concern is that our results are due to a few extreme observations. To address that concern, we winsorize all variables at the 1st and 99th or the 5th and 95th percentiles and reconduct our tests. The results are very similar to those reported in Tables 2-6.

As another test of the effect of outliers, but only for the CARs, we separate firms into quintiles each year on the basis of changes in *Fortune* ranking score. We calculate CARs for each quintile around publication of *Fortune* ranking. We find that the CARs decrease monotonically across quintiles as the change in ranking scores decrease. These results indicate that our results are not driven by outliers.

5.4 Other sensitivity tests

We perform two other types of robustness tests. First, we calculate CARs using simple market model excess returns and using market-adjusted returns (i.e., we assume $\alpha=0$ and $\beta=1$ are the market model parameters). The results are essentially the same as those reported in Table 2. The CARs are not the result of the particular model used to calculate them.

Second, we recognize that Petersen (2009) cautions against using both year and firm fixed effects in the type of models that we estimate in Tables 3-6. Nevertheless, we add firm fixed effects and re-estimate these models. In terms of the signs and significance the coefficients of the models are essentially the same as in Tables 3-6, indicating that the results in these tables are not due to unobserved time-invariant firm characteristics.

6. Commentary and conclusion

We examine empirically the proposition derived from Dyck, Volchkova and Zingales (2008) that an exogenous positive media shock can enhance a CEO's reputational capital which can empower the CEO to extract private benefits to the detriment of shareholders. And, on the opposite side of the coin, and potentially more intriguing, an exogenous negative media shock can reduce a CEO's reputational capital which can diminish the CEO's power to extract private benefits to the advantage of shareholders. We explore these predictions using changes in the ranking scores of Fortune's Most Admired Companies. Consistent with the predictions, and perhaps counter-intuitively, we find that increases in ranking scores are accompanied by a significant average negative announcement period CAR while decreases in scores are accompanied by a significant average positive announcement period CAR. Further, the increases in ranking scores are associated with increases in CEO compensation, reductions in the likelihood of the CEOs losing their jobs, and increases in the likelihood of value-reducing acquisitions by the CEOs' firms, while decreases in ranking scores are associated the opposite outcomes. Our interpretation of the results is that, consistent with the conjecture of Dyck et al., bad news for shareholders is good news for CEOs and vice versa.

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Appendix Variable Definitions

| Variables | Definition |
|-------------------------------|--|
| ΔScore | The year over year change in <i>Fortune</i> magazine's America's Most Admired Companies ranking score from year t-1 to t |
| ΔCompensation | The change in the sum of salary, bonus, long-term incentive plan payouts, the value of restricted stock grants, and the value of options granted during the year from year t-1 to year t |
| LgAssets | The natural log of the book value of total assets |
| Leverage | The ratio of the book value of total debt to the market value of equity plus the book value of total debt |
| Tobin's Q | The ratio of the market value of assets to book value of assets where market value of assets is the market value of the firm's shares as of the end of the month prior to the <i>Fortune</i> ranking publication plus the book value of total assets minus the book value of equity as of the fiscal year-end prior to the relevant <i>Fortune</i> ranking |
| RD/Sales | Ratio of research and development expense to sales |
| CAPX/Sales | Ratio of capital expenditures to sales |
| Advertising/Sales | Ratio of advertising expense to sales |
| Industry-adjusted ROA | The ratio of net income to total assets (ROA) less the industry median ROA where industry is defined as in Fama and French (1997) |
| Firm age | The number of years since a firm first appeared in <i>CRSP</i> as of the end of year t |
| 1-year abnormal stock returns | The firm's buy-and-hold stock return minus the <i>CRSP</i> buy-and-hold value-weighted market return over year t-1 |
| Stock return volatility | The annualized standard deviation of monthly stock returns over years t-5 through t-1 |
| CEO turnover | An indicator set to 1 for any firm fiscal year (year t) in which CEO turnover, excluding turnover due to death, occurred and 0 otherwise |
| Involuntary CEO turnover | An indicator set to 1 in any firm fiscal year in which involuntary CEO turnover occurred and 0 otherwise |
| CEO/Chair duality | An indicator variable set to 1 if the CEO also serves as the chairman of the board during year t and 0 otherwise |
| CEO Age | CEO's age as of the end of year |
| CEO Tenure | The number of years that the CEO has held his position |
| pre-BHR | The firm's buy-and-hold stock returns net of the <i>CRSP</i> value-weighted buy-and-hold return over the 11-month period prior to publication of |
| post-BHR | the <i>Fortune</i> ranking The firm's buy-and-hold stock returns net of the <i>CRSP</i> value-weighted buy-and-hold return over the 11-month period following the publication of the <i>Fortune</i> ranking score |

Appendix- Continued

| Variables | Definition |
|------------------------|---|
| Acquisition indicator | An indicator variable set to 1 if the firm made an acquisition in year t and 0 otherwise |
| Number of acquisitions | The number of acquisitions undertaken by the firm in year t with a maximum number of four |
| Collateral | The ratio of tangible assets to total assets |
| NWC/Total assets | The ratio of (current assets – current liabilities – cash & short term investments) to total assets |
| Cash/Total assets | The ratio of cash & short term investments to total assets |
| (CAPX + RD)/Total | The ratio of capital expenditures plus research and development expense |
| assets | to total book value of assets |
| Asset growth | The year-over-year growth rate in total assets winsorized at the 10 th and 90 th percentiles |
| M/B | The ratio of market value of equity as of the end of the month prior to the <i>Fortune</i> publication to the book value of equity as of the end of fiscal year t-1 |
| High tech | An indicator set to 1 if the acquirer and target are both from a high tech industry as defined by Loughran and Ritter (2004) |
| Acquirer CAR | CAR over the 5-day interval surrounding announcements of an acquisition using the Fama-French-Carhart 4-factor model where the announcement dates are from <i>SDC</i> |
| Sum Acquirer CAR | The sum of the announcement period CARs for acquisitions that the firm announced during year t |
| Average Acquirer CAR | The average CAR for acquisitions that the firm announced during year t |
| ROA | The ratio of net income to total assets |
| Relative size | The ratio of the deal value to the market value of the acquirer's equity |
| Diversifying | An indicator set to 1 if the target and acquirer do not share a Fama- French industry and 0 otherwise |
| Public | An indicator set to 1 if the target's shares are publicly traded and 0 otherwise |
| Private | An indicator set to 1 if the target is a privately held but not a subsidiary and 0 otherwise |
| All cash | An indicator set to 1 if the acquisition is an all cash offer and 0 otherwise |
| All equity | An indicator set to 1 if the acquisition is an all equity offer and 0 otherwise |
| Competing bidder | An indicator set to 1 if there are multiple bidders for the target and 0 otherwise |
| Hostile takeover | An indicator set to 1 for hostile deals, as indicated by SDC, and 0 otherwise |
| Tender offer | An indicator set to 1 if the acquisition is a tender offer and 0 otherwise |

Table 1 Fortune's list of America's Most Admired Companies across years

This table presents the number of industries and the number of firms in the *Fortune*'s list of America's Most Admired Companies for the years 1992-2012. The column labeled year is the year in which the list was published. Δ Score is defined in the appendix.

| | Number of | | | Std. dev. |
|------|------------|-----------------|----------------|-----------|
| Year | industries | Number of firms | Average ∆Score | ΔScore |
| 1992 | 32 | 307 | -0.04 | 0.41 |
| 1993 | 32 | 311 | -0.01 | 0.45 |
| 1994 | 42 | 404 | 0.07 | 0.46 |
| 1995 | 41 | 395 | -0.02 | 0.44 |
| 1996 | 45 | 417 | -0.04 | 0.47 |
| 1997 | 49 | 431 | 0.00 | 0.49 |
| 1998 | 55 | 476 | 0.01 | 0.46 |
| 1999 | 55 | 469 | -0.11 | 0.62 |
| 2000 | 57 | 504 | -0.15 | 0.66 |
| 2001 | 61 | 535 | -0.20 | 0.66 |
| 2002 | 58 | 530 | -0.08 | 0.67 |
| 2003 | 66 | 587 | -0.14 | 0.81 |
| 2004 | 64 | 592 | 0.32 | 0.65 |
| 2005 | 65 | 582 | 0.09 | 0.67 |
| 2006 | 65 | 306 | -0.05 | 0.64 |
| 2007 | 63 | 307 | -0.03 | 0.59 |
| 2008 | 64 | 319 | 0.06 | 0.70 |
| 2009 | 64 | 361 | -0.42 | 0.66 |
| 2010 | 55 | 323 | -0.14 | 0.60 |
| 2011 | 57 | 350 | 0.05 | 0.58 |
| 2012 | 58 | 350 | 0.00 | 0.55 |

Event study of stock returns surrounding announcements of *Fortune* ranking scores This table presents cumulative abnormal returns (CARs) calculated over various intervals surrounding the publication date of the ranking scores of *Fortune's* list of America's Most Admired Companies. The Fama-French-Carhart 4-factor model is used to calculate CARs. The difference column presents the CAR statistic of firms experiencing an increase in score (Δ Score > 0) minus the CAR statistic of firms experiencing a decrease in score (Δ Score < 0). Event intervals are in days except the bottom set which are in months (mo). T-statistics are in parentheses. T-statistics are adjusted for event day clustering. *, **, and *** denote statistical significance at 10%, 5%, and 1%, respectively.

| Event Interval | | | | |
|------------------------|-------------------|------------------|---------------------|------------|
| and sample | Full sample | Δ Score>0 | Δ Score <0 | Difference |
| statistics | | | | |
| | | | | |
| (-2, +2) | | | | |
| Mean | -0.04% | -0.30%*** | 0.20%** | -0.50%*** |
| t-statistic | (-0.74) | (-3.86) | (2.37) | (-4.34) |
| Median | -0.06% | -0.21% | 0.21% | -0.42% |
| % Positive | 49.30% | 42.23% | 65.10% | -22.87% |
| (-10 -3) | | | | |
| (10, 5) Mean | 0.06% | 0.05% | 0.06% | -0.01% |
| t statistic | (0.88) | (0.64) | (0.63) | (0.01) |
| t-statistic Modion | (0.88) | (0.04) | (0.03) | (-0.09) |
| | 0.04% | 0.05% | 0.03% | 0.02% |
| % Positive | 50.42% | 50.68% | 50.18% | 0.50% |
| (+3,+10) | | | | |
| Mean | 0.08% | 0.04% | 0.02% | 0.02% |
| t-statistic | (1.19) | (0.54) | (0.18) | (0.95) |
| Median | 0.12% | 0.14% | 0.08% | 0.06% |
| % Positive | 51.13% | 51.68% | 50.94% | 0.74% |
| (+1 mo + 12 mo) | | | | |
| (+1 mo,+12 mo) Mean | 0.35% | -0.25% | 0.93% | -1 18% |
| t-statistic | (0.59) | (-0.31) | (1.09) | (1.00) |
| Madian | 1 10% | 0.84% | 1 / 5% | 0.61% |
| | 1.1770 51 510/ | 51 520/ | 1.4J70 51 500/ | -0.0170 |
| % Positive | 51.51% | 31.32% | 51.50% | 0.02% |

Changes in *Fortune* ranking scores and changes in CEO compensation

Panel A of this table presents the changes in total and excess annual compensation for CEOs of firms experiencing increases (Δ Score > 0) or decreases (Δ Score < 0) in ranking scores of *Fortune's* list of America's Most Admired Companies. The difference column presents the compensation statistic of firms experiencing an increase in score minus the compensation statistic of firms experiencing a decrease in score. Panel B of this table presents the coefficients from a regression of the change in total CEO compensation on the change in ranking scores and measures of firm characteristics and performance. All variables are defined in the Appendix. The intercept is not reported for brevity. Year fixed effects are included. Standard errors are clustered by firm. T-statistics are in parentheses. *, **, *** denote statistical significance at 10%, 5%, and 1%, respectively.

| Variables and sample statistics | $\Delta Score > 0$ | Δ Score<0 | Difference |
|---|--------------------|------------------|------------|
| | | | |
| Δ Total compensation (in \$million) | | | |
| Mean | 1.51*** | -0.72** | 2.23*** |
| t-statistic | (4.46) | (-2.27) | (4.81) |
| Median | 0.39 | -0.25 | 0.64 |
| % Positive | 60.4% | 42.8% | 0.176 |
| Δ Excess compensation (in \$million) | | | |
| Mean | 1.14** | -1.12*** | 2.26*** |
| t-statistic | (2.60) | (-2.71) | (3.75) |
| Median | 0.38 | -0.36 | 0.74 |
| % Positive | 59.4% | 48.6% | 0.108 |

Panel A. Univariate analysis

| Independent variables | Coefficient estimates |
|--------------------------------|-----------------------|
| ASaama | 2 220*** |
| ΔScore | 2.328*** |
| AL & Assots | (3.45) |
| ΔLgAssets | 0.054 |
| AL average | (0.77) |
| ALeverage | 0.618 |
| A Tabin's O | (0.47) |
| $\Delta 1 \text{ obin s } Q$ | 0.236 |
| | (0.37) |
| AKD/Sales | -0.829 |
| ACADY/C 1 | (-0.31) |
| \Delta CAPX/Sales | 2.167 |
| | (0.67) |
| Δ Advertising/Sales | -3.916 |
| | (-1.28) |
| Industry adjusted ROA | -0.255 |
| | (-0.07) |
| 1-year abnormal return | 7.225*** |
| | (2.64) |
| Stock return volatility | -1.506** |
| | (-1.94) |
| Firm age | -0.006* |
| | (-1.65) |
| CEO tenure | 0.006 |
| | (0.37) |
| Year fixed effect | Yes |
| Firm-clustered standard errors | Yes |
| | |
| Number of observations | 5,811 |
| Adjusted R^2 | 0.011 |

Panel B. Regression analysis

Changes in *Fortune* ranking scores and CEO turnover

Panel A of this table presents the percentage of *Fortune's* America's Most Admired Companies experiencing turnover and involuntary turnover in the position of CEO during the (approximately) 11 months following increases (Δ Score > 0) or decreases (Δ Score < 0) in ranking score. The difference column presents the difference in percentage turnover for firms experiencing increases in score versus those experiencing decreases in score. The z-statistics for the proportion tests of whether the proportions are equal across the two groups are in parentheses. Panel B of this table presents coefficients from logit estimations in which the dependent variable of the model in column 1 is all CEO turnover and the dependent variable in column 2 is involuntary CEO turnover. The independent variables include the changes in ranking scores and measures of CEO characteristics and measures of performance. All variables are defined in the Appendix. The intercept is not reported for brevity. Year fixed effects are included. Standard errors are clustered by firm. T-statistics are in parentheses. *, **, *** denote statistical significance at 10%, 5%, and 1%, respectively.

| Variables | Δ Score>0 | Δ Score<0 | Difference |
|--------------------------|------------------|------------------|---------------------|
| CEO Turnover | 9.62% | 11.84% | -2.22%*** |
| Involuntary CEO turnover | 1.57% | 2.22% | -0.65% ** (2.15) |

Panel A. Univariate analysis

| Panel | В. | Logit | anal | lysis |
|-------|----|-------|------|-------|
| | ~. | | | 1000 |

| | Coefficient | estimates |
|--------------------------------|-------------|-----------|
| Independent variables | (1) | (2) |
| | | |
| ΔScore | -0.409*** | -0.382*** |
| | (-4.01) | (-2.56) |
| CEO tenure | -0.356*** | -0.012 |
| | (-8.06) | (-0.63) |
| CEO age | -0.045*** | 0.021 |
| 2 | (-3.04) | (1.03) |
| CEO/Chair duality | -0.501*** | -0.802*** |
| 2 | (-2.84) | (-3.03) |
| Pre-BHR | -0.257 | -0.211 |
| | (-1.12) | (-1.08) |
| Post-BHR | -0.075 | -0.888 |
| | (-0.38) | (-1.03) |
| Year fixed effect | Yes | Yes |
| Firm-clustered standard errors | Yes | Yes |
| Number of observations | 5,843 | 5,843 |
| Pseudo R^2 | 0.229 | 0.089 |

Changes in *Fortune* ranking scores and acquisition activity

Panel A of this table presents the percentage of *Fortune's* America's Most Admired Companies that completed an acquisition during the (approximately) 11 months following increases (Δ Score > 0) or decreases (Δ Score < 0) in ranking scores. The difference column presents the difference in percentage of firms completing an acquisition. The z-statistic for the proportion test of whether the proportions are equal across the two groups are in parentheses. Panel B of this table presents coefficients from logit and ordered logit estimations. Column 1 of panel B presents coefficients from a logit estimation in which the dependent variable is the acquisition indicator. Column 2 presents coefficients from an ordered logit estimation in which the dependent variables include the changes in ranking scores and measures of firm characteristics. All variables are defined in the Appendix. The intercept is not reported for brevity. Year fixed effects are included. Standard errors are clustered by firm. T-statistics are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1%, respectively.

Panel A. Univariate analysis

| Variables | Δ Score>0 | Δ Score<0 | Difference |
|--------------------------|------------------|------------------|--------------------|
| Completed acquisition(s) | 32.80% | 28.70% | 4.10%*** (4.35) |

| | Coefficient estimates | | |
|--------------------------------|-----------------------|-----------|--|
| Independent variables | (1) | (2) | |
| | | | |
| ΔScore | 0.153*** | 0.107*** | |
| | (3.55) | (3.56) | |
| Leverage | -4.219*** | -2.848*** | |
| | (-4.08) | (-4.63) | |
| Leverage ² | 4.694*** | 3.880*** | |
| | (2.45) | (3.80) | |
| Collateral | -2.996*** | -1.554*** | |
| | (-9.18) | (-6.98) | |
| NWC/Total assets | 1.512*** | 0.680*** | |
| | (3.61) | (2.86) | |
| Cash/Total assets | -1.618 | -0.381 | |
| | (-1.46) | (-0.58) | |
| (CAPX+RD)/Total assets | 0.964 | 1.131* | |
| | (1.59) | (1.81) | |
| Asset growth | -0.000 | -0.000 | |
| | (-0.97) | (-1.51) | |
| M/B | -0.175*** | -0.011*** | |
| | (-3.57) | (-2.97) | |
| LgAssets | 0.248*** | 0.183*** | |
| | (4.84) | (4.31) | |
| High tech | 0.571*** | 0.324* | |
| | (2.65) | (1.67) | |
| Year fixed effect | Yes | Yes | |
| Firm-clustered standard errors | Yes | Yes | |
| Number of observations | 6,003 | 6,003 | |
| Pseudo R^2 | 0.086 | 0.086 | |

Panel B. Logit and ordered logit analysis

Changes in *Fortune* ranking scores and acquisition performance

Panel A of this table presents cumulative abnormal returns (CARs) calculated over the 5-day interval surrounding announcements of acquisitions by firms in Fortune's list of America's Most Admired Companies during the (approximately) 11 months following publication of the list. The Fama-French-Carhart 4-factor model is used to calculate CARs. The difference column presents the CAR statistic of firms experiencing an increase in score (Δ Score > 0) minus the CAR statistic of firms experiencing a decrease in score (Δ Score < 0). Panel B of this table presents coefficients of regressions of acquisition performance during the (approximately) 11 months following increases (Δ Score > 0) or decreases (Δ Score < 0) in ranking score. In column 1 of panel B the dependent variable is the sum of an acquirer's CARs in acquisitions completed during the (approximately) 11 months following publication of the list. If a firm completes no acquisition during this period, the variable is set to zero. In column 2 of panel B the dependent variable is the average of an acquirer's CARs in acquisitions completed during the (approximately) 11 months following publication of the list. If a firm completes no acquisition during this period, the variable is set to zero. In column 3 and 4, the dependent variable is the CAR of each acquisition completed during the (approximately) 11 months following publication of the list. The independent variables include the changes in ranking scores and measures of firm and acquisition characteristics. All variables are defined in the Appendix. The intercept is not reported for brevity. Year fixed effects are included. Standard errors are clustered by firm in column 1 and 2 of panel B. T-statistics are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1%, respectively.

| | Δ Score>0 | Δ Score<0 | Difference |
|--------------|------------------|------------------|------------|
| Acquirer CAR | | | |
| Mean | -0.33%*** | 0.38%*** | -0.71%*** |
| t-statistic | (-3.40) | (3.56) | (-4.93) |
| Median | -0.11% | 0.17% | -0.28% |
| % Positive | 38.2% | 60.2% | -22.0% |

Panel A. Univariate analysis

| | Coefficient estimates | | | | |
|--------------------------------|-----------------------|-----------|-----------|-----------|--|
| Independent variables | (1) | (2) | (3) | (4) | |
| | | | | | |
| ΔScore | -0.005*** | -0.001** | -0.007*** | -0.006*** | |
| | (-4.01) | (-1.98) | (-5.68) | (-2.91) | |
| LgAssets | -0.002*** | -0.001*** | -0.002*** | -0.002* | |
| | (-3.85) | (-4.65) | (-2.98) | (-1.89) | |
| Tobin's Q | 0.000 | 0.000 | 0.000 | 0.001 | |
| | (1.62) | (1.54) | (0.49) | (1.08) | |
| ROA | -0.004 | -0.007* | 0.006 | 0.006 | |
| | (-0.54) | (-1.78) | (0.43) | (0.24) | |
| Leverage | 0.008 | 0.002 | 0.015* | 0.024* | |
| | (1.41) | (1.04) | (1.87) | (1.67) | |
| Private | | | | -0.005 | |
| | | | | (-1.58) | |
| Public | | | | -0.011*** | |
| | | | | (-2.77) | |
| Diversifying | | | | 0.001 | |
| | | | | (0.36) | |
| Hostile takeover | | | | 0.005 | |
| | | | | (0.76) | |
| Tender offer | | | | -0.016 | |
| | | | | (-0.98) | |
| Competing bidder | | | | -0.012 | |
| | | | | (-1.12) | |
| All equity | | | | -0.001** | |
| i in equity | | | | (-2, 22) | |
| All cash | | | | 0.002 | |
| | | | | (0.65) | |
| Relative size | | | | (0.03) | |
| Kelative Size | | | | (0.027) | |
| | | | | (0.75) | |
| Vear fixed effect | Ves | Ves | Ves | Ves | |
| Industry fixed effect | No | No | Yes | Yes | |
| Firm-clustered standard errors | Yes | Yes | No | No | |
| | 100 | 100 | 110 | 110 | |
| Number of observations | 7.686 | 7.686 | 5.518 | 1.766 | |
| Adjusted R^2 | 0.006 | 0.003 | 0.022 | 0.062 | |

Panel B. Regression analysis

Consecutive changes in *Fortune* **ranking scores and CEO compensation, CEO turnover, and acquisition performance** This table presents the changes in excess compensation, involuntary CEO turnover, completed acquisitions, and sum acquirer CAR from year t-1 to year t of 1,990 events where a firm experience a decrease in *Fortune* ranking score in year t-1 and an increase in the score in year t and of 1,916 events where a firm experience an increase in *Fortune* ranking score in year t-1 and a decrease in the score in year t. All variables are defined in the Appendix. T-statistics are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1%, respectively.

| Variables | (1) $\Delta Score(t) > 0 \& \Delta Score(t-1) < 0$ (1,990 events) | (2) $\Delta Score(t) < 0 \& \Delta Score(t-1) > 0$ (1,916 events) | (3) Differences |
|--|---|---|--------------------|
| Δ Excess compensation (in millions) | 2.10*** | -4.01*** | 6.11*** |
| | (3.09) | (-3.20) | (4.25) |
| ΔInvoluntary CEO turnover | -0.15%* | 0.26% | -0.41%** |
| | (-1.73) | (1.37) | (-2.20) |
| Δ Completed acquisition(s) | 0.04 | -0.15*** | 0.19*** |
| | (1.22) | (-3.98) | (3.85) |
| ΔSum acquirer CAR | -0.61%*** | 0.60%*** | -1.21%*** |
| | (-3.70) | (3.66) | (-5.21) |