Journal of Corporate Finance 43 (2017) 378–396

Contents lists available at ScienceDirect

Journal of Corporate Finance

journal homepage: www.elsevier.com/locate/jcorpfin

# When is good news bad and vice versa? The *Fortune* rankings of America's most admired companies

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ARTICLE INFO

*Article history:*
Received 31 January 2017
Accepted 4 February 2017
Available online 6 February 2017

*JEL classification:*
G31
G32
G34

*Keywords:*
Corporate media ranking
Corporate value
CEO compensation
CEO turnover
Acquisitions

ABSTRACT

We use increases and decreases in the ranking scores of *Fortune's* Most Admired Companies to test the proposition that media shocks can increase (decrease) the value of a manager's reputational capital and, thus, enhance (diminish) his power to extract corporate resources for private benefit at the expense of shareholders. Consistent with the proposition increases (decreases) in scores are associated with stock price decreases (increases). And, CEOs whose firms experience increases (reductions) in 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.



## 1. Introduction

Zingales (2000) proposes that the media can play a role in corporate governance. Dyck et al. (2008) formalize that proposition in a setup wherein the media play that role by influencing the value of managers' reputational capital.[1] 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 prediction that follows from this setup is that, holding all else constant, an exogenous media shock 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 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. As elaborated in Liu and McConnell (2013), a positive media shock enhances the managerial labor market's perception of the manager's ability, thereby, increasing his reputational capital, whereas, a

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[1] See, for example, Fama (1980) and Fama and Jensen (1983).

http://dx.doi.org/10.1016/j.jcorpfin.2017.02.008
0929-1199/

negative media shock diminishes the managerial labor market's perception of the manager's ability, thereby, decreasing his reputational capital. The manifestation of an increase in the managerial labor market's perception of the manager's ability is an increase in the manager's power to extract corporate resources for private consumption. And, on the other side of the coin, the manifestation of a decrease in the managerial labor market's perception of the manager's ability is a reduction in the manager's power to extract corporate resources for private consumption. Whether the data support these propositions is, of course, an empirical question.

In this paper we address that empirical question. An important prerequisite of this undertaking is identification of a setting in which the "holding all else constant" criterion is satisfied. A desirable feature of such a setting is one in which the only "news" in the media event is the media event itself. That is, the media "shock" does not convey new information about the fundamentals of the manager, the firm, or the economic environment in which the firm operates. The setting that we use is the annual ranking scores of firms in *Fortune* magazine's list of America's Most Admired Companies. The scores are derived from surveys of senior executives, directors, and securities analysts taken several months prior to publication of the list. As such, the scores are based on information that has been available to market participants long before publication of the list. In that regard, the only news in the publication of the list is the list itself.

Each year *Fortune* asks respondents 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, 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.

With these predictions in mind, we consider changes in the *Fortune* rankings for the years 1992–2012. Over this interval, the *Fortune* list contains 8183 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. Consistent with the trade-off proposition, and perhaps counter-intuitively, 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 is in contrast to 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 et al. (1991), and Avery et al. (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%. Finally, the average announcement CAR associated with acquisitions by firms that rise in ranking is −0.33% in comparison with an average announcement period 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.

We interpret the results as being consistent with the proposition that an exogenous positive media shock can (and does) increase the CEO's reputational capital, thereby, at the margin, allowing him to increase his consumption of private benefits at the expense of shareholders and that an exogenous negative media shock can (and does) reduce the CEO's reputational capital, thereby, reducing his ability to extract private benefits to the advantage of shareholders. In this respect, good news for CEOs is bad news for shareholders and vice versa.

Various prior studies, some of which precede and others of which follow Dyck et al. (2008), report that the media influence corporate actions.[2] One of the contributions of Dyck et al. is to identify a specific channel through which the media can influence

[2] Such studies include, but are not limited to, Farrell and Whidbee (2002), Core et al. (2008), Joe et al. (2009), Kuhnen and Niessen (2012), Liu and McConnell (2013), and Dai et al. (2015).

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 compensation, CEO turnover, firms' acquisition activity, and the firms' acquisition performance. Section 5 discusses two alternative interpretations of the results: (1) a managerial hubris interpretation and (2) an uncertainty resolution interpretation. Section 6 describes various robustness tests. Section 7 describes prior studies by Malmendier and Tate (2009) and Focke et al. (2016) and discusses the differences between those studies and ours. Section 8 briefly summarizes and concludes.

## 2. Sample and data sources

Underlying the Zingales (2000) and 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 aggregating, amplifying and disseminating already available information regarding managerial performance. 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 question is whether this "pure" media effect gives rise to outcomes consistent with the implications that follow from Zingales (2000) and Dyck et al. (2008).

The scores have been compiled annually since 1983 from surveys sent to executives, directors, and security analysts. The survey is sent to approximately 8000 potential respondents and, on average, the survey response rate is 50%. The firms to be rated come from the *Fortune* 1000 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.[3] In some years the *Fortune* 1000 does not include 10 firms for each industry. In 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* 1000 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 0.44 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* 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 8183 instances a firm experienced a change in its ranking score from one year to the next.[4] Of these, 4001 firms experienced an increase in score and 4182 experienced a decrease. The event study tests the propositions that an

[3] 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 community and the environment, and wise use of corporate assets.

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

**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* 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. *ΔScore* is the change in ranking score in the relevant year as defined in the appendix.

| Year | Number of industries | Number of firms | Average ΔScore | Average \|ΔScore\| | Std. dev. ΔScore |
|---|---|---|---|---|---|
| 1992 | 32 | 307 | -0.04 | 0.30 | 0.41 |
| 1993 | 32 | 311 | -0.01 | 0.31 | 0.45 |
| 1994 | 42 | 404 | 0.07 | 0.34 | 0.46 |
| 1995 | 41 | 395 | -0.02 | 0.29 | 0.44 |
| 1996 | 45 | 417 | -0.04 | 0.32 | 0.47 |
| 1997 | 49 | 431 | 0.00 | 0.34 | 0.49 |
| 1998 | 55 | 476 | 0.01 | 0.34 | 0.46 |
| 1999 | 55 | 469 | -0.11 | 0.45 | 0.62 |
| 2000 | 57 | 504 | -0.15 | 0.48 | 0.66 |
| 2001 | 61 | 535 | -0.20 | 0.52 | 0.66 |
| 2002 | 58 | 530 | -0.08 | 0.52 | 0.67 |
| 2003 | 66 | 587 | -0.14 | 0.61 | 0.81 |
| 2004 | 64 | 592 | 0.32 | 0.56 | 0.65 |
| 2005 | 65 | 582 | 0.09 | 0.51 | 0.67 |
| 2006 | 65 | 306 | -0.05 | 0.49 | 0.64 |
| 2007 | 63 | 307 | -0.03 | 0.46 | 0.59 |
| 2008 | 64 | 319 | 0.06 | 0.51 | 0.70 |
| 2009 | 64 | 361 | -0.42 | 0.63 | 0.66 |
| 2010 | 55 | 323 | -0.14 | 0.49 | 0.60 |
| 2011 | 57 | 350 | 0.05 | 0.45 | 0.58 |
| 2012 | 58 | 350 | 0.00 | 0.43 | 0.55 |

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 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 t-statistics 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.[5]

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, 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 experience increases in ranking scores, the mean CAR is −0.25% with a t-statistic of

[5] See Campbell et al. (1997), pp. 166–167.

**Table 2**
**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 the *Fortune* 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 ($\Delta Score > 0$) minus the CAR statistic of firms experiencing a decrease in score ($\Delta Score < 0$). 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 statistic | Full sample | $\Delta Score > 0$ | $\Delta Score < 0$ | Difference |
|---|---|---|---|---|
| (−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) | | | | |
| Mean | 0.06% | 0.05% | 0.06% | -0.01% |
| t-statistic | (0.88) | (0.64) | (0.63) | (−0.09) |
| Median | 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) | | | | |
| Mean | 0.35% | -0.25% | 0.93% | -1.18% |
| t-statistic | (0.59) | (−0.31) | (1.09) | (1.00) |
| Median | 1.19% | 0.84% | 1.45% | -0.61% |
| % Positive | 51.51% | 51.52% | 51.50% | 0.02% |

0.31; for firms that experience 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 experience an increase in score and those that experience a 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, good news for the CEO is bad 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 year 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 6758 observations of changes in ranking scores. Of these, 3427 represent increases in score and 3331 represent decreases in score.

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 annual 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 experience an increase in score, the mean change in CEO compensation is $1.51 million with a t-statistic of 4.46, the median

**Table 3**
**Changes in *Fortune* ranking scores and changes in CEO compensation.**
Panel A of this table presents the changes in annual and excess annual compensation for CEOs of firms experiencing increases (*ΔScore* > 0) or decreases (*ΔScore* < 0) in ranking scores of the *Fortune* 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 of a panel regression of the change in annual CEO compensation on the change in ranking scores and measures of firm characteristics and performance. In column 1, the dependent variable is *ΔAnnual compensation*, and in column 2 the dependent variable is *ΔAnnual compensation-ΔUnscheduled stock option grants*. Panel C of this table presents coefficients of a panel regression in which the dependent variable is the return over the interval of March of year t-1 through February of year t. Year fixed effects are included. Standard errors are clustered by firm. All variables are defined in the Appendix. The intercept is not reported for brevity. T-statistics are in parentheses. *, **, *** denote statistical significance at 10%, 5%, and 1%, respectively.

*Panel A. Univariate analysis*

| Variables and sample statistics | *ΔScore* > 0 | *ΔScore* < 0 | Difference |
|---|---|---|---|
| *ΔAnnual 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% | 17.6% |
| *ΔAnnual 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% | 10.8% |

*Panel B. Regression analysis: CEO compensation*

| | Coefficient estimates | |
|---|---|---|
| Independent variables | (1) *ΔAnnual compensation* | (2) *ΔAnnual compensation - Unscheduled stock option grants* |
| *ΔScore* | 2.328*** | 2.611*** |
| | (3.45) | (3.43) |
| *ΔLgAssets* | 0.054 | 0.074 |
| | (0.77) | (1.05) |
| *ΔLeverage* | 0.618 | 0.395 |
| | (0.47) | (0.30) |
| *ΔTobin's Q* | 0.236 | 0.216 |
| | (0.37) | (0.35) |
| *ΔRD/Sales* | -0.829 | -0.556 |
| | (−0.31) | (−0.21) |
| *ΔCAPX/Sales* | 2.167 | 0.636 |
| | (0.67) | (0.18) |
| *ΔAdvertising/Sales* | -3.916 | -4.759 |
| | (−1.28) | (−1.44) |
| *Industry adjusted ROA* | -0.255 | -0.638 |
| | (−0.07) | (−0.19) |
| *Pre-ranking BHR* | 7.225*** | 6.583*** |
| | (2.64) | (2.41) |
| *Stock return volatility* | -1.506** | -1.923** |
| | (−1.94) | (−2.19) |
| *Firm age* | -0.006* | -0.011 |
| | (−1.65) | (−1.44) |
| *CEO tenure* | 0.006 | -0.004 |
| | (0.37) | (−0.21) |
| Number of observations | 5811 | 5811 |
| Adjusted $R^2$ | 0.011 | 0.012 |

(*continued on next page*)

**Table 3** (*continued*)

*Panel C. Regression analysis: unscheduled stock option grants and firm performance*

| Independent variables | Coefficient estimates<br>*Post-ranking BHR* |
|---|---|
| *Unscheduled stock option grants* | 0.010<br>(0.37) |
| *ΔScore* | -0.003<br>(−0.18) |
| *ΔScore*Unscheduled stock option grants* | -0.049<br>(−1.28) |
| *Size* | -0.012***<br>(−2.86) |
| *Book-to-market* | 0.175***<br>(5.22) |
| *Pre-ranking BHR* | -0.045***<br>(−2.54) |
| Number of observations | 5813 |
| Adjusted $R^2$ | 0.095 |

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 absolute decreases in compensation. From an economic perspective, a potentially more telling statistic is the change in the CEO's "excess" compensation where excess compensation is his compensation after controlling for other factors that may influence the change in the CEO's annual compensation. Calculation of excess compensation requires a benchmark of what constitutes appropriate compensation. On that question we accept as reasonable prior models of CEO compensation that have been vetted by the peer-review process. In doing so, we recognize, of course, that such models may be subject to omitted variable bias or other errors. We make no claim that the specification that we use is the "true" model of CEO compensation only that it is representative of the peer-reviewed models. In particular, we rely on prior studies by Aggarwal and Samwick (1999), Bertrand and Mullainathan (1999), and Masulis et al. (2009) to guide our choice of control variables in the panel regression.

The dependent variable in the regression is CEO compensation in year t. The independent variables are *LgAssets*, *Leverage*, *Tobin's Q, RD/sales*, *CAPX/sales*, *Advertising/sales*, *Industry-adjusted ROA, Firm age*, *1-year abnormal stock returns*, and *Stock return volatility*. Definitions of all independent variables used here and elsewhere in this paper are given in Appendix along with the sources of the data. The estimation includes 5811 observations for which data are available for the independent variables. Excess compensation is measured as the residual of the regression.

Results of the analysis 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 used as control variables in CEO compensation models, 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 experience a decrease in annual excess compensation of $2.26 million in comparison with those 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 determine whether change in *Fortune* ranking score is significantly related to change in annual compensation, we estimate a panel regression in which the dependent variable is the change in annual compensation and the key independent variable is *ΔScore*. The other independent variables are the same as those above except that *LgAssets*, *Leverage*, *Tobin's Q, RD/sales*, *CAPX/sales* and *Advertising/sales* are measured in annual change form. The results of this analysis are given in column 1 of panel B of Table 3. As shown in the table and consistent with the proposition that a decrease (increase) in ranking score diminishes (enhances) the CEO's power to extract private benefits, 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.

Of necessity, given that each year gives rise to a new survey and a new set of rankings, we focus on annual changes in compensation as each year's compensation follows a change in that year's rankings. Nevertheless, a particular year's scores could have

a spillover effect that carries over into a future year's compensation. Such an effect, if there is any, is most likely to show up in unscheduled stock option grants. Because such awards often do not vest immediately, even though ownership of the awards is conferred in the year of the grant, consumption available due to such awards could be deferred. To circumvent the potentially confounding effect of one-time irregular stock option grants, we exclude unscheduled stock option grants from annual compensation and re-estimate the regression of column 1 in panel B.

The results of this regression are reported in column 2 of panel B. The coefficient estimate of the change in *Fortune* score is positive and statistically significant (t-statistic = 3.43). with a one standard deviation change in *Fortune* score translating into a change in annual compensation excluding unscheduled stock option grants of $1.63 million. These results indicate that the correlation between change in ranking score and the change in CEO annual compensation is not due to the potentially confounding effect of one-time irregular stock option grants.

A related question is whether the change in *Fortune* ranking score and the associated change in the composition of a CEO's compensation, in particular any shock to his stock option grants, influence the subsequent performance of the CEO's firm. To address this question, we estimate a regression in which the dependent variable is the buy-and-hold stock return, *Post-ranking BHR,* of the CEO's firm from the March of year t to February of year t + 1. The key independent variable is the interaction of the change in ranking score in year t-1 with the dollar amount of unscheduled stocks options granted to the CEO from March of year t-1 to February of year t scaled by CEO annual compensation in year t-1. The control variables in the regression, taken from Malmendier and Tate (2009), are *Size*, *Market-to-book*, and *Grant year returns* as of year-end prior to the *Fortune* ranking publication.

As reported in panel C of Table 3, with a t-statistic of −1.28, the coefficient of the interaction is not statistically significantly different from zero. The implication is that post-ranking firm performance is not due to irregular stock and option grants.

**Table 4**
**Changes in *Fortune* ranking scores and CEO turnover**.
Panel A of this table presents the percentage of the *Fortune* list of America's Most Admired Companies experiencing turnover and involuntary turnover in the position of CEO during the (approximately) 11 months following increases (*ΔScore* > 0) or decreases (*ΔScore* < 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 of 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 accounting and stock 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.

*Panel A. Univariate analysis*

| Variables | *ΔScore* > 0 | *ΔScore* < 0 | Difference |
|---|---|---|---|
| *CEO Turnover* | 9.62% | 11.84% | -2.22%*** |
| | | | (3.03) |
| *Involuntary CEO turnover* | 1.57% | 2.22% | -0.65%** |
| | | | (2.15) |

*Panel B. Logit analysis: CEO turnover*

| | Coefficient estimates | |
|---|---|---|
| Independent variables | (1) *CEO turnover* | (2) *Involuntary CEO turnover* |
| *ΔScore* | -0.196*** | -0.305** |
| | (−2.56) | (−2.29) |
| *CEO tenure* | -0.054*** | -0.047** |
| | (−5.30) | (−1.97) |
| *CEO age* | 0.027*** | 0.007 |
| | (3.33) | (0.40) |
| *CEO/Chair duality* | 0.009 | -0.308 |
| | (0.07) | (−1.22) |
| *Pre-ranking BHR* | -0.323** | -0.992* |
| | (−2.08) | (−1.82) |
| *Post-ranking BHR* | -0.539*** | -1.436*** |
| | (−3.28) | (−3.61) |
| *ROA* | -0.656 | -2.366* |
| | (−1.28) | (−1.66) |
| *ROE* | -0.019** | -0.014 |
| | (−2.31) | (−1.04) |
| Number of observations | 5135 | 4927 |
| Pseudo $R^2$ | 0.04 | 0.09 |

### 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. 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.[6] 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 <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.[7]

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 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 year in which an involuntary turnover occurred and 0 otherwise. As before, the key independent variable is ΔScore. The control variables include *CEO/Chair duality*, *CEOAge*, *CEOTenure*, *Pre-ranking BHR*, *Post-ranking BHR*, *ROA*, and *ROE*. The independent variables employed in the model are based on Engel et al. (2003), Farrell and Whidbee (2003), and Huson et al. (2004).

[6] 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).

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

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 −2.56 and −2.29, 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 0.36% 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 3.3%. 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. Consistent with the predictions that follow from Dyck et al., these results indicate that CEOs lose as ranking scores fall and gain as scores rise. Shareholders experience the opposite outcomes. Again, good news for CEOs is bad news for shareholders and vice versa.

**Table 5**
**Changes in *Fortune* ranking scores and acquisition activity.**
Panel A of this table presents the percentage of the *Fortune* list of America's Most Admired Companies that completed an acquisition during the (approximately) 11 -months following increases ($\Delta Score > 0$) or decreases ($\Delta Score < 0$) 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 of 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 variable in the model is the number of acquisitions. The independent variables include the changes in ranking scores and measures of firm characteristics and stock 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. *Z*-statistics are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1%, respectively.

*Panel A. Univariate analysis*

| Variables | $\Delta Score > 0$ | $\Delta Score < 0$ | Difference |
|---|---|---|---|
| *Acquisition completion* | 32.80% | 28.70% | 4.10%*** |
| | | | (4.35) |

*Panel B. Regression analysis: acquisition activities*

| | Coefficient estimates | |
|---|---|---|
| Independent variables | (1)<br>Logit: *Acquisition completion* | (2)<br>Ordered logit: *No. Acquisitions completed* |
| *ΔScore* | 0.093** | 0.096** |
| | (2.06) | (2.14) |
| *Pre-ranking BHR* | 0.058 | 0.064 |
| | (0.97) | (1.06) |
| *Leverage* | -3.644*** | -3.991*** |
| | (−3.38) | (−3.57) |
| *Leverage²* | 0.844 | 1.428 |
| | (0.41) | (0.68) |
| *Collateral* | -1.265*** | -1.324*** |
| | (−3.97) | (−4.11) |
| *NWC/Total assets* | 1.399*** | 1.508*** |
| | (3.48) | (3.7) |
| *Cash/Total assets* | 0.278 | 0.521 |
| | (0.57) | (0.99) |
| *(CAPX + RD)/Total assets* | 0.476 | 0.395 |
| | (0.53) | (0.42) |
| *Asset growth* | 0.000*** | 0.000*** |
| | (4.31) | (5.38) |
| *M/B* | 0.008 | 0.018 |
| | (0.19) | (0.37) |
| *LgAssets* | 0.469*** | 0.512*** |
| | (10.62) | (10.75) |
| *High tech* | 0.329** | 0.370** |
| | (2.14) | (2.15) |
| Number of observations | 6003 | 6003 |
| Pseudo $R^2$ | 0.090 | 0.069 |

### 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 size 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, and larger, acquisitions. Contrarily, a decrease in score is predicted to reduce the incidence, and size, 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, and, subsequently, investigate whether the relative size of the acquisition targets is related to the changes in the acquirer's ranking score.

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 <50% of the target's shares prior to the announcement of the transaction; and the acquirer must own >50% of the target's shares after the transaction. These screening criteria give rise to a sample of 5788 acquisitions. Of these, 3142 are acquisitions by 1311 firms that experienced an increase in score and 2646 are by 1185 firms that experienced a decrease in score. Recalling that 4001 of the firms in the *Fortune* lists experienced increases in score and 4130 experienced decreases in score, 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 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. The control variables include *Leverage*, *Collateral*, *NWC/Total assets*, *Cash/Total assets*, *(CAPX + RD)/Total assets*, *Asset growth*, *M/B*, *LgAssets*, *High-tech*, and *Pre-ranking BHR*. These variables are from Shleifer and Vishny (2003) and Faccio and Masulis (2005).

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 2.06 and 2.14, 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 1.70% 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 5.5%.

Thus, the logit estimations indicate that, after controlling for other factors that have been used to predict the likelihood of acquisitions, 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 (up) in score are less (more) likely to undertake acquisitions over the next 12 months than are those that move up (down) in score.

### 4.4. Acquisition target size

The second prediction regarding acquisition activity is that acquisitions completed by firms that experience a decrease in ranking score will be smaller than acquisitions completed by firms that experience an increase in ranking score. In considering this prediction, we scale the size of the target relative to the size of the acquirer as in Moeller et al. (2004).

To examine this prediction, we estimate a regression in which the dependent variable is *Relative size*, defined as the transaction value divided by the equity market capitalization of the acquirer at the end of the fiscal year prior to the acquisition announcement. The key independent variable in this regression is the change in *Fortune* ranking score of the acquirer. Also as in Moeller et al., the control variables are *Pre-ranking BHR*, *Assets*, *Tobin's Q*, *ROA*, *Leverage*, *Diversifying*, *Public*, *Private*, *All cash*, *All stock*, *Competing bidder*, *Hostile takeover*, and *Tender offer*.

The results of the estimations are reported in column 1 in panel B of Table 6. The coefficient of *ΔScore* is positive and statistically significant (t-statistic = 1.98). To give an indication of the economic significance of the coefficient, based on the coefficient in column 1, a one standard deviation decrease in score implies a decrease of 0.63% in the relative size of an acquisition. Given that the average relative size of all acquisitions in our sample is 2.34%, the decrease in relative size of an acquisition

associated with a one standard deviation decline in *Fortune* score is 26.9%. Thus, after controlling for other factors that have been associated with the relative size of acquisitions, firms that move down in score undertake smaller acquisitions over the next 12 months than those that move up in score. This result, too, is consistent with the implications that follow from Dyck et al.

**Table 6**
**Changes in *Fortune* ranking scores and acquisition target size and 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 ($\Delta Score > 0$) minus the CAR statistic of firms experiencing a decrease in score ($\Delta Score < 0$). Panel B of this table presents coefficients of regressions of acquisition target size and performance during the (approximately) 11 -months following increases ($\Delta Score > 0$) or decreases ($\Delta Score < 0$) in ranking score. In column 1 of panel B the dependent variable is the *Relative size*. In column 2 of panel B the dependent variable is *Sum acquirer CAR*, the sum of an acquirer's CARs multiplied by 100 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 of panel B the dependent variable is *Average acquirer CAR*, the average of an acquirer's CARs multiplied by 100 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 4 the dependent variable is *CAR (−5, +5)*, the 11-day CAR multiplied by 100 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 and stock 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 in column 2 and 3 of panel B. T-statistics are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1%, respectively.

*Panel A. Univariate analysis*

| Variables and sample statistics | $\Delta Score > 0$ | $\Delta Score < 0$ | 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 B. Regression analysis: acquisition target size and performance*

| | Coefficient estimates | | | |
|---|---|---|---|---|
| Independent variables | (1) *Relative size* | (2) *Sum acquirer CAR* | (3) *Average acquirer CAR* | (4) *CAR (−5, +5)* |
| *ΔScore* | 0.011** | -0.256*** | -0.117** | -0.840*** |
| | (1.98) | (−2.77) | (−2.33) | (−2.87) |
| *Pre-ranking BHR* | 0.016 | 0.054 | 0.039 | -0.018 |
| | (1.63) | (0.44) | (0.49) | (−0.04) |
| *LgAssets* | -0.022*** | -0.161*** | -0.102*** | -0.610*** |
| | (−6.53) | (−3.61) | (−4.26) | (−3.68) |
| *Tobin"s Q* | -0.004 | 0.067 | 0.005 | -0.209 |
| | (−0.92) | (0.49) | (0.12) | (−1.02) |
| *ROA* | -0.083 | -0.971 | -0.506 | 1.203 |
| | (−1.36) | (−0.83) | (−0.87) | (0.41) |
| *Leverage* | 0.043 | 0.217 | 0.171 | 0.189 |
| | (1.23) | (0.52) | (0.78) | (0.11) |
| *Private* | -0.017* | | | -0.835* |
| | (−1.91) | | | (−1.88) |
| *Public* | 0.095*** | | | -1.226*** |
| | (10.37) | | | (−2.65) |
| *Diversifying* | 0.011 | | | 0.683* |
| | (1.59) | | | (1.96) |
| *Hostile takeover* | -0.007 | | | 0.117 |
| | (−0.95) | | | (0.31) |
| *Tender offer* | -0.045*** | | | -0.718 |
| | (−3.90) | | | (−1.29) |
| *Competing bidder* | 0.076*** | | | 0.126 |
| | (5.16) | | | (0.18) |
| *All equity* | -0.027* | | | 0.741 |
| | (−1.81) | | | (1.04) |
| *All cash* | -0.035*** | | | 0.224 |
| | (−4.81) | | | (0.63) |
| *Relative size* | | | | -2.822** |
| | | | | (−2.12) |
| Number of observations | 1398 | 7688 | 7688 | 1398 |
| Adjusted $R^2$ | 0.175 | 0.003 | 0.004 | 0.047 |

### 4.5. Acquisition performance

A third 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. 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 experience an increase in *Fortune* 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 observation in the sample is included. The results of the regression are reported in panel B of Table 6. In column 2, the dependent variable is the sum of the announcement period CARs for acquisitions that the firm announced during year t. In column 3, 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 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 control variables, taken from Moeller et al., and measured as of the end of year t-1, are *Pre-ranking BHR*, *Assets*, *Tobin's Q, ROA*, *Leverage*, *Relative size*, *Diversifying*, *Public*, *Private*, *All cash*, *All stock*, *Competing bidder*, *Hostile takeover*, and *Tender offer*.

As shown in columns 2–4 of Table 6, each of the coefficients of the change in *Fortune* ranking score is negative with t-statistics of −2.77, −2.33, and −2.87, respectively. As an example of economic importance, based on the coefficient in column 3, a one standard deviation increase in *Fortune* ranking score decreases the acquisition announcement period CAR by 0.52%. 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 $115.4 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.

### 4.6. Causality

We have argued that annual changes in the *Fortune* ranking scores 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 the proposition that the information contained in the rankings is new information to market participants. 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, an unidentified factor causes all of the other observed phenomena. That is, it is possible that some unidentified factor, which is inversely correlated with the changes in ranking scores, causes changes in compensation, CEO turnover, corporate acquisitions, and announcement period CARs around acquisition announcements. The unidentified factor must be one that is not incorporated in the control variables included in the regression models.

To lessen concerns with the possible existence of such a factor, 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 an increase 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 average increase in the change of excess compensation of $2.10 million and a decrease in the average likelihood of being involuntarily replaced of −0.15%, while his firm experiences an increase in the

**Table 7**
**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 1990 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 1916 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)<br>*ΔScore(t)* > 0 & *ΔScore (t-1)* < 0 | (2)<br>*ΔScore(t)* < 0 & *ΔScore (t-1)* > 0 | (3)<br>Differences |
|---|---|---|---|
| *ΔExcess compensation (in millions)* | 2.10***<br>(3.09) | -4.01***<br>(−3.20) | 6.11***<br>(4.25) |
| *ΔInvoluntary CEO turnover* | -0.15%*<br>(−1.73) | 0.26%<br>(1.37) | -0.41%**<br>(−2.20) |
| *ΔCompleted acquisition(s)* | 0.04<br>(1.22) | -0.15***<br>(−3.98) | 0.19***<br>(3.85) |
| *ΔSum acquirer CAR* | -0.61%***<br>(−3.70) | 0.60%***<br>(3.66) | -1.21%***<br>(−5.21) |

number of acquisitions completed of 0.04 and a decrease in the sum of acquisition CARs of −0.61%.[8] 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 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, respectively. 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 is inversely correlated with the changes in ranking scores.

## 5. Alternative interpretations

We recognize that certain of our results are consistent with other interpretations. We address two of those in this section.

### 5.1. Managerial hubris

#### 5.1.1. Managerial hubris and takeover premiums

The first is a hubris interpretation. According to the hubris hypothesis of corporate takeovers set forth by Roll (1986), top managers are subject to hubris in evaluating takeover attempts. The proposition was set forth initially as an explanation of the, as of that date, well-documented average negative announcement period CARs associated with acquisitions of publicly traded targets. To wit, managerial hubris leads to over valuation of acquisition targets. Accepting the hubris hypothesis as a reasonable representation of managerial behavior, an argument can be made that an increase in *Fortune* ranking score increases the CEO's and the board's collective hubris, thereby, leading to an increase in the CEO's compensation, an increase in the CEO's job tenure, and an increase in the firm's propensity to overvalue acquisition targets which, in turn, leads to more acquisition attempts with more negative CARs. And, on the opposite side of the coin, a decline in the firm's *Fortune* ranking score leads to the opposite outcome: a decrease in hubris, a decrease in the CEO's compensation, a decrease in likelihood of value-reducing acquisitions, and an increase in firm value (i.e. positive CARs upon announcement of the *Fortune* ranking). These predictions require, of course, that it is not only the CEO, but also the board, that is afflicted with hubris, but, if so, each prediction is satisfied with our results. Under such an interpretation, it is still the media shock that "causes" the outcomes, but the channel through which the outcomes become manifest is managerial hubris in combination with a complicit board of directors rather than the CEO employing greater market power to extract private benefits.

Malmendier and Tate (2008) present evidence that CEOs infected by hubris are more likely to over pay for acquisition targets than are other CEOs. The Dyck et al. framework, which for ease of reference in this section we label the "reputational capital explanation", embeds no such prediction. Under the reputational capital explanation, CEOs seek to grow their empires to extract greater private benefits in the future. Their incentive to over pay for acquisitions is no greater than that of any other CEOs. Thus, the reputational capital explanation predicts no relation between takeover premiums and changes in *Fortune* rankings.

[8] 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%

To test this implication, we borrow the Malmendier and Tate (2008) measure of over payment, *Takeover Premium*, and estimate a regression with *Takeover Premium* as the dependent variable. *Takeover Premium* is measured as the price per share offered by the acquiring firm at the announcement of the transaction divided by the target firm's price per share 43 trading days prior to the announcement. The key independent variable is, as elsewhere, *ΔScore*, of the acquirer prior to the announcement of the transaction. The other independent variables, measured as of the year-end prior to the announcement of the transaction, are *Pre-ranking BHR, Assets, Tobin's Q, ROA, Leverage*, *Relative size, Diversifying, Public, Private, All cash, All stock, Competing bidder, Hostile takeover,* and *Tender offer*. The independent variables are based on Malmendier and Tate (2008).

As reported in Table 8, the coefficient of *ΔScore* is −0.043 with a t-statistic of −0.03. According to these results, changes in ranking scores are not associated with takeover premiums. These results do not totally reject the hubris explanation but they do weaken support for the hubris explanation of the connection between changes in ranking scores and takeover activity.

#### 5.1.2. Managerial hubris and acquisition target size

Moeller et al. (2004) argue that the relative size of a takeover attempt is a proxy for the CEO's empire-building. The hubris explanation of takeovers focuses on valuation errors. Such errors are not obviously connected to the relative size of the target. In section 4.4, we discuss the result in Table 6 in which the relative size of the target is positively correlated with the change in ranking score. This result does not necessarily reject the hubris explanation but it does support the reputational capital explanation.

### 5.2. Managerial ability

A different alternative interpretation of our results is that, contrary to our maintained presumption, publication of ranking score does provide new information to market participants and to the board of directors about the CEO. The new information

**Table 8**
**Changes in *Fortune* ranking scores and acquisition premium.**
This table presents coefficients of a regression of acquisition premium and *Fortune* ranking. The dependent variable is the takeover premium. The key independent variable is the change in ranking scores. Other measures of firm and acquisition characteristics and stock performance are defined in the Appendix. The intercept is not reported for brevity. Year and industry fixed effects are included. T-statistics are in parentheses. *, **, and *** denote statistical significance at 10%, 5%, and 1%, respectively.

| Independent variables | Coefficient estimates<br>*Takeover premium* |
|---|---|
| *ΔScore* | -0.043 |
| | (−0.03) |
| *Pre-ranking BHR* | -0.645 |
| | (−0.24) |
| *LgAssets* | -0.167 |
| | (−0.19) |
| *Tobin"s Q* | 0.022 |
| | (0.02) |
| *ROA* | 7.975 |
| | (0.52) |
| *Leverage* | -11.067 |
| | (−1.20) |
| *Private* | -3.644 |
| | (−0.39) |
| *Public* | 0.179 |
| | (0.09) |
| *Diversifying* | -2.365 |
| | (−1.37) |
| *Hostile takeover* | 6.589*** |
| | (2.92) |
| *Tender offer* | 2.974 |
| | (1.26) |
| *Competing bidder* | -1.133 |
| | (−0.34) |
| *All equity* | 0.498 |
| | (0.16) |
| *All cash* | 0.359 |
| | (0.19) |
| *Relative size* | 1.078 |
| | -0.19 |
| Number of observations | 684 |
| Adjusted $R^2$ | 0.035 |

could come in one of two forms. The ranking could provide information about the level of the ability of the CEO. Or the ranking may resolve uncertainty about the ability of the CEO. First, consider information about the level of the CEO's ability. If that were the case, then the prediction is that increases in score would be associated with positive CARs while decreases in scores would be associated with negative CARs. Our results contradict this interpretation.

Now consider the reduction of uncertainty interpretation. This interpretation is consistent with the increase in CAR that is associated with the average increase in ranking score. The dilemma for this interpretation is that, under it, a reduction in score also reduces uncertainty about the quality of the CEO. As such, any change in score, whether positive or negative, is predicted to give rise to an increase in CAR as, under this interpretation, the publication of every scores resolves uncertainty about the CEO's quality. The decreases in CAR associated with increases in the *Fortune* scores are inconsistent with this interpretation of the results.

In short, we have considered certain other interpretations of the results. No doubt still other interpretations can be developed that we have not considered. At this point, though, the results are fully consistent with the Dyck et al. (2008) proposition that media coverage can, in itself, influence corporate decision making because of its influence on top managers' reputational capital.

## 6. 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.[9]

### 6.1. 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 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 6327 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.

### 6.2. 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.

### 6.3. 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 re-conduct our tests. The results are very similar to those reported in Tables 2-8.

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.

### 6.4. 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

[9] Available in the online appendix.

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.

## 7. Commentary

A study similar to ours is Malmendier and Tate (M&T) (2009) who study 264 instances in which media outlets bestow upon corporate executives a variety of awards over the years 1975–2002. 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 shareholders. 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 ± 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 (in absolute value) 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 time- or 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 while those that experience a fall in score experience an average positive 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 et al. (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.

## 8. Conclusion

We examine empirically the proposition derived from Dyck et al. (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 with the opposite outcomes. Our interpretation of the results is that, consistent with the conjecture of Dyck et al., good news for CEOs is bad news for shareholders and vice versa.

## Acknowledgment

We thank Karl Lins, Alexei Ovtchinnikov, Richard roll, Henri Servaes, Mara Faccio, Stefano Rossi and participants at workshops at Florida State University, Purdue University, and University of Michigan for helpful comments and suggestions.

**Appendix A.** Variable definitions.

| Variables | Definition |
|---|---|
| *(CAPX + RD)/Total assets* | The ratio of capital expenditures plus research and development expense to total book value of assets |
| *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 *SDC* |
| *Acquisition indicator* | An indicator variable set to 1 if the firm made an acquisition in year t and 0 otherwise |
| *Advertising/Sales* | Ratio of advertising expense to sales |
| *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 |
| *Asset growth* | The year-over-year growth rate in total assets winsorized at the 10th and 90th percentiles |
| *Average acquirer CAR* | The average CAR for acquisitions that the firm announced during year t |
| *CAPX/Sales* | Ratio of capital expenditures to sales |
| *Cash/Total assets* | The ratio of cash & short term investments to total assets |
| *CEO age* | CEO's age as of the end of year |
| *CEO tenure* | The number of years that the CEO has held his position |
| *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 |
| *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 |
| *Collateral* | The ratio of tangible assets to total assets |
| *Competing bidder* | An indicator set to 1 if there are multiple bidders for the target and 0 otherwise |
| *Diversifying* | An indicator set to 1 if the target and acquirer do not share a Fama-French 49 industry and 0 otherwise |
| *Firm age* | The number of years since a firm first appeared in *CRSP* as of the end of year t |
| *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) |
| *Hostile takeover* | An indicator set to 1 for hostile deals, as indicated by SDC, and 0 otherwise |
| *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) |
| *Involuntary CEO turnover* | An indicator set to 1 in any firm fiscal year in which involuntary CEO turnover occurred and 0 otherwise |
| *Leverage* | The ratio of the book value of total debt to the market value of equity plus the book value of total debt |
| *LgAssets* | The natural log of the book value of total assets |
| *M/B* | The ratio of market value of equity as of the end of the month prior to the *Fortune* publication to the book value of equity as of the end of fiscal year t-1 |
| *Number of acquisitions* | The number of acquisitions undertaken by the firm in year t with a maximum number of four |
| *NWC/Total assets* | The ratio of (current assets – current liabilities – cash & short term investments) to total assets |
| *Post-ranking BHR* | The firm's buy-and-hold stock returns net of the *CRSP* value-weighted buy-and-hold return over the 11-month period following the publication of the *Fortune* ranking score |
| *Pre-ranking BHR* | The firm's buy-and-hold stock returns net of the *CRSP* value-weighted buy-and-hold return over the 11-month period prior to publication of the *Fortune* ranking |
| *Private* | An indicator set to 1 if the target is a privately held but not a subsidiary and 0 otherwise |
| *Public* | An indicator set to 1 if the target's shares are publicly traded and 0 otherwise |
| *RD/Sales* | Ratio of research and development expense to sales |
| *Relative size* | The ratio of the deal value to the market value of the acquirer's equity |
| *ROA* | The ratio of net income to total assets |
| *ROE* | The ratio of net income to common equity |
| *Stock return volatility* | The annualized standard deviation of monthly stock returns over years t-5 through t-1 |
| *Sum acquirer CAR* | The sum of the announcement period CARs for acquisitions that the firm announced during year t |
| *Takeover Premium* | The ratio of deal value to the market capitalization of the target 43 trading days prior to deal announcement |
| *Tender offer* | An indicator set to 1 if the acquisition is a tender offer and 0 otherwise |
| *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 *Fortune* 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 *Fortune* ranking |
| *Unscheduled stock option grants* | The dollar amount of unscheduled stocks options granted to the CEO from March of year t-1 to February of year t scaled by CEO annual compensation in year t-1, where unscheduled option grants are defined as in Lie (2005) |
| *ΔAnnual compensation* | 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 |
| *ΔScore* | The year over year change in *Fortune* magazine's America's Most Admired Companies ranking score from year t-1 to t |

## Appendix B. Supplementary data

Supplementary data to this article can be found online at http://dx.doi.org/10.1016/j.jcorpfin.2017.02.008.

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