CEO reputation and internal corporate governance

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Abstract

This study examines how CEO reputation affects internal corporate governance (monitoring) strength across firms. Using lagged CEO press coverage, lagged 3-year industry-adjusted firm stock performance, and CEO awards as CEO reputation proxies, we find that when a CEO's reputation is higher, the CEO's firm exhibits weaker corporate governance along many dimensions. However, this relation becomes positive beyond a certain level of reputation. This study contributes to the literature by providing evidence that several CEO attributes influence a wide range of corporate governance mechanisms. It also shows that governance can be regarded as endogenous and multidimensional, especially in its relation with CEO reputation and other CEO and firm attributes. Finally, it provides evidence that CEO reputation has a U-shaped relation with governance strength, thus enhancing our understanding of the observed heterogeneity in corporate governance strength across firms – it suggests that "strong" ("weak") governance may not necessarily imply "good" ("bad") governance as typically assumed in the literature – different strength of governance mechanisms is optimal in different settings. We also find that other CEO and firm attributes have U-shaped or inverted U-shaped relations with governance strength. These findings collectively show that the generally uni-dimensional "one-size-fits-all" approach to governance that has dominated much of the academic and practitioner literature, and adopted by policy-making bodies, should be reconsidered.

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"Recent transgressions in financial markets have underscored the fact that one can hardly overstate the importance of reputation in a market economy." Alan Greenspan, 16th April 2004

1. Introduction

While most prior research treats corporate governance as exogenous, several studies suggest governance may in fact be endogenous (e.g., Smith and Watts, 1992; Bushman et al., 2004). Variation in agency costs across firms leads to heterogeneity in the costs and benefits of monitoring managerial behavior to enhance firm value, and thus a variation in optimal governance strength across firms. Since monitoring is costly, the benefits of monitoring must outweigh its costs for firms to decide to monitor their managers (Hart, 1995). Gillan et al. (2003) show that, after accounting for firm and industry factors, a large portion of unexplained variation in governance strength remains, suggesting that other factors, such as perceived managerial attributes, may also play a role in explaining this variation.[1] However, to the best of my knowledge, no study has provided comprehensive evidence on the relation between perceived managerial attributes and a range of governance mechanisms.[2]

This study focuses on the role of CEO reputation in determining governance strength in a firm. I define CEO reputation as the market's estimate of the CEO's ability. The market comprises current and prospective firm stakeholders (like consumers, employees, investors and suppliers) and other players (e.g., analysts, the media, and regulatory authorities). Due to the information asymmetry between the CEO and the firm's stakeholders regarding the CEO's ability, the stakeholders use CEO reputation to gauge the likelihood of success of their stakes in the firm (Grossman and Stiglitz, 1980; Fombrun, 1996; Hamilton and Zeckhauser, 2004).

The importance of reputation in the business arena is widely documented in the literature. In the practitioner arena, recent studies by Gaines-Ross (2000) and a leading consulting firm, Burson-Marstellar (2003), show that CEO reputation accounts for up to 50% of corporate reputation and has a significant influence on financial analysts' stock recommendations and investors' stock purchase decisions.[3] In economics, it is widely held that reputation impacts contracting decisions between firms and their stakeholders (Fama, 1980; Crocker and Reynolds, 1993; Banerjee and Duflo, 2000), and contributes to firm value and its success and survival (Fuller and Jensen, 2002).[4] This suggests that firms care about their CEOs' reputation, and their monitoring of these CEOs (and other managers/officers) could be influenced by the CEOs' reputation.[5]

To generate my hypotheses, I argue that since greater CEO reputation is associated with greater estimated/perceived CEO ability, there is less need for monitoring by the firm. However, this relation is influenced by the perception of the CEO's inherent incentives to engage in opportunistic actions that are harmful to the firm. One possibility is that a CEO with a higher reputation is perceived as being less likely to engage in opportunistic actions that could tarnish his reputation (Fama, 1980; Kreps, 1990; Sridhar, 1994). Here, due to greater estimated CEO ability and incentives to engage in beneficial actions only, the costs to the firm of monitoring the CEO and other managers/officers are estimated to be greater than the costs of opportunistic actions, leading to weaker corporate governance. On the other hand, a CEO with a higher reputation may be pressured more to take actions that maintain the CEO's high reputation but are detrimental to the firm, such as manipulating earnings (Graham, Harvey, and Rajgopal, 2006; Malmendier and Tate, 2009). In this case, the estimated costs of opportunistic actions outweigh monitoring costs. Another possible consequence of higher CEO reputation is CEO overconfidence, which may result in the CEO making suboptimal decisions (Malmendier and Tate, 2005, 2008), say due to overestimating returns on investment, or engage in fraudulent actions (Schrand and Zechman, 2008). Therefore, when CEO reputation is higher, the firm will have stronger governance mechanisms in place.

My third hypothesis is based on the argument that the above hypotheses do not compete with each other but rather act as opposing forces that manifest themselves at different levels of CEO reputation. More specifically, greater CEO reputation is associated with greater estimated CEO ability and incentives to engage in beneficial actions up to a certain level of reputation. However, beyond this level, the CEO feels intense pressure to maintain his reputation and therefore is more likely to engage in opportunistic actions. This suggests that the relation between CEO reputation and governance strength may be non-linear, possibly U-shaped.

To capture the degree of internal firm governance mechanisms, I use seven measures reflecting board strength, extent of shareholder rights, or overall governance, and which capture 28 different monitoring mechanisms.[6] Subsets of these measures of governance have been used separately in prior studies (e.g., Yermack, 1996; Gillan et al., 2003) to proxy for individual dimensions of corporate governance; however, no study has used all these measures in the same study to capture different dimensions of, and a broader notion of, governance as I do. I use lagged CEO press coverage as my main proxy for CEO reputation and measure it by

the number of business-related articles that contain the CEO's name over the 5-year time period before the current year. As an additional test, I also use other reputation proxies, namely, lagged 3-year industry-adjusted firm stock performance and CEO awards. These reputation proxies capture three dimensions (determinants) of managerial reputation that I examine, namely, press visibility, long-term firm performance, and celebrity status, respectively.

I find that higher CEO reputation is generally related to weaker firm governance along many dimensions of governance. Intriguingly, however, beyond a certain level of CEO reputation, when reputation becomes very high, this relation becomes positive, indicating that the CEO reputation-governance strength relation is U-shaped. My findings are robust to accounting for observed and unobserved firm, industry, and CEO factors, as well as to alternative explanations and several other sensitivity checks. I also provide evidence on relations between governance strength and other CEO and firm attributes. Firms with older CEOs and larger firms have weaker governance along many dimensions, whereas riskier firms, firms with growth opportunities, and those with greater CEO stock and options holdings have stronger governance along these same dimensions. Greater CEO tenure is associated with stronger governance along some dimensions and weaker governance along other dimensions. I also document that several other CEO and firm attributes have non-linear (either U-shaped or inverted U-shaped) relations with governance strength.

This study contributes to the literature in several ways. First, its findings of a U-shaped CEO reputation-governance strength relation and non-linear relations between several CEO and firm attributes and governance strength suggest that "strong" or "weak" governance, as conventionally defined in the literature, may not necessarily or always reflect "good" or "bad" governance, respectively, in terms of enhancing or destroying shareholder value, contrary to the assumptions in much prior governance research.[7] These findings, which refute the "one-size-fits-all" approach to governance, collectively shed some light on the mixed evidence in the literature with respect to the relations between different governance mechanisms and firm performance and complement Morck et al. (1988) who find that a firm's growth opportunities (as measured by Tobin's Q) has a nonlinear relation with director stock ownership, a dimension of corporate governance.[8] Different factors give rise to different optimal governance structures in firms.[9] Thus, efforts to "improve" governance may not be as useful as determining the appropriate governance mechanism, strong or weak, for a particular firm.[10] This has policy

implications for the push by regulatory bodies to mandate "stronger" governance in firms through greater board independence (i.e., more outsider directors and separation of the CEO and chairman roles), for example. Recent regulation aimed at increasing board independence may actually decrease shareholder value, and emphasizing director independence may have adverse consequences for some firms.

Second, this study contributes to the agency literature by combining insights on adverse selection and moral hazard and identifying economic factors and theories that explain how governance structures arise in firms. Moreover, it provides direct empirical evidence on how a range of CEO and firm attributes influence a broad and comprehensive range of corporate governance mechanisms.[11] In contrast, much prior governance research has examined the association between a limited range of governance and mainly firm attributes (e.g., Lehn, Patro, and Zhao, 2005; Linck, Netter, and Yang, 2007), and most of these studies do not provide economic theories explaining governance. My study shows that intriguing results emerge when we consider multiple economic forces in determining governance strength.

Several of these studies show that firm performance can influence board strength (e.g., Hermalin and Weisbach, 1988; Denis and Sarin, 1999). To the extent that firm performance can be attributed to the CEO, the evidence from these studies suggests that CEO reputation may affect corporate governance and that it may be possible to infer our study's findings from these prior studies. However, such inference is without strong basis as these studies are inconclusive about the nature of this relation for several reasons. First, a measure of firm performance is a less direct proxy for CEO reputation as firm performance is a function of many factors (Hermalin and Weisbach, 2003). Second, as mentioned above, evidence from these studies is mixed at best. Furthermore, the results in these studies may be sensitive to the type of performance measure used (Morck, Shleifer, and Vishny, 1988) or to the endogeneity between performance and governance and hence the methodology used (Agrawal and Knoeber, 1996; Hermalin and Weisbach, 2003). Third, these studies typically consider one-year (contemporaneous) firm performance. Annual firm performance is less likely to be closely associated with CEO reputation, which is typically acquired over a longer period. Fourth, firm performance captures only one facet of a CEO's reputation. As indicated above, other perceived CEO attributes like integrity should be considered in determining the effect of CEO reputation on governance strength.[12] In fact, firms could

make tradeoffs between perceived ability and these other CEO attributes in determining monitoring intensity. This may explain why we observe some CEOs remaining in office despite poor short-term performance.

A third contribution of this study is that it provides comprehensive evidence on the bargaining power hypothesis espoused by Hermalin and Weisbach (1998). According to this hypothesis, CEOs that are perceived to have higher ability have greater bargaining power with their boards. These CEOs may be able to negotiate less monitoring by their boards/firms. My findings provide evidence that suggests that this hypothesis needs to be modified. In particular, the U-shaped relation I document between CEO reputation and governance strength suggests that CEOs are not able to negotiate less monitoring beyond a certain level of reputation. Furthermore, the inconsistent relations between governance strength and different CEO attributes that reflect CEO bargaining power also demonstrate that the bargaining power hypothesis may not be robust empirically or needs to be reexamined.

Finally, this study contributes to a limited number of recent studies that show that governance is both endogenous and multidimensional (e.g., Bhagat and Bolton, 2008). When Milbourn's (2003) finding of a positive relation between CEO reputation and stock-based pay-performance sensitivity is combined with the current study's findings, they collectively suggest that CEO reputation influences tradeoffs between CEO stock-based pay-performance sensitivities and other monitoring mechanisms like board monitoring and shareholder rights up to a certain level of CEO reputation. Beyond this level, stock-based incentives complement other governance mechanisms.[13] Prior studies typically use only one or two governance measures. The comprehensive evidence I provide suggests that researchers need to consider an array of several governance mechanisms for a more complete understanding of governance in general, and the relation between governance and CEO reputation.

The rest of the paper is organized as follows. In the next section, I provide the theoretical background for this study. Section 3 describes the sample selection procedure and measures used in this study, while section 4 outlines the methodology and discusses the results and alternative explanations for the findings. In section 5, I conduct sensitivity checks of the results. I conclude in section 6 with suggestions for future research.

2. Theoretical Background

It is conceivable that when CEO reputation is higher, there is generally less monitoring inside firms. Firms may provide more reputable CEOs with greater control and discretion over firm resources as these CEOs are perceived to possess more valuable knowledge and ability (Rosen, 1982; Kole and Lehn, 1999; Himmelberg and Hubbard, 2000; Hayward et al., 2004). Such CEOs are encouraged by their firms to use their specific knowledge or expend greater effort through fewer restrictions (Prendergast, 2002; Brau and Fawcett, 2006; Raith, 2005; Boot, Gopalan, and Thakor, 2006). Overall, the greater latitude given to the CEOs with fewer restrictions encourages them to make relevant tradeoffs among the courses of action available to them (Burkart et al., 1997; Moers, 2006). Consequently, it is difficult and costly for firms to monitor the CEOs' activities. This leads to weaker governance in these firms, as the costs of monitoring exceed the costs of not monitoring.[14]

Although firm shareholders are likely to have a good estimate of their CEOs' ability, there is considerable information asymmetry between the shareholders and the CEOs with respect to the likelihood of the CEOs engaging in opportunistic actions. The firms form an estimate of this likelihood, and therefore determine the extent of monitoring in their firms, based on the reputation their CEOs enjoy. This is because the firms feel that the likelihood of opportunistic actions by the CEOs would be influenced by how well the CEO is perceived by the market (Sridhar, 1994).

Next I discuss my theoretical reasoning that leads to competing hypotheses on the CEO reputation-governance strength relation based on the likelihood of opportunistic actions by the CEO.

CEO reputation and weaker governance

My first hypothesis tests the view that firms with CEOs that possess higher reputation have weaker governance. Some prior studies predict that CEOs with higher reputation will not engage in opportunistic rent-seeking behavior and will use their ability as best as possible to maximize their firms' value (e.g., Fama, 1980; Kreps, 1990; Hayward, Rindova, and Pollock, 2004). This theory suggests that such CEOs have more to lose in credibility and wages if they don't engage in necessary actions that are to the shareholders' benefit. For example, if they manipulate earnings to meet certain targets, this may lead to lower earnings quality and eventually higher

cost of capital (Francis et al., 2005). The labor market may compensate for this increase in cost of capital by reducing the CEOs' wages. Moreover, the CEOs' reputation may be tarnished by such behavior, which may affect their labor market or other appeal. To protect their reputation and labor market appeal, and for other career concerns, these CEOs will only engage in actions that benefit the firm.

The above discussion suggests that firms with CEOs that have higher reputation feel that their CEOs not only have greater perceived ability but a lower likelihood of engaging in opportunistic actions, and therefore have weaker monitoring mechanisms in place as monitoring costs are likely to be higher than costs of opportunistic actions. This leads to this study's first hypothesis stated in alternate form:

H_1: Firms whose CEOs possess higher reputation display weaker governance, compared to firms whose CEOs possess lower reputation, ceteris paribus.

CEO reputation and stronger governance

A competing hypothesis tests the view that firms with CEOs that have higher reputation face stronger corporate governance as these CEOs have greater personal motivation to maintain their reputation to the detriment of the firm. When CEOs enjoy a high reputation, there is pressure for them to sustain it for prestige, career advancement, or compensation. In a recent survey paper, Graham, Harvey, and Rajgopal (2005) provide evidence that reputation matters a lot to senior executives, and that these executives are willing to sacrifice firm economic value to manage financial reporting perceptions to enhance their careers.[15] Malmendier and Tate (2009) also provide evidence that CEOs who win awards and have celebrity status tend to manipulate earnings more than CEOs who do not have such status. Such career concerns are real, as CEOs are penalized for failing to meet earnings benchmarks and rewarded for meeting or beating benchmarks. For example, Matsunaga and Park (2001) find that failure to meet analysts' consensus forecasts results in CEO pay cuts, and Bartov, Givoly, and Hayn (2002) show that firms that meet or beat these forecasts enjoy higher returns than firms that fail to do so. Thus, it becomes necessary for such firms to have stronger internal monitoring mechanisms, as the costs of opportunistic actions exceed monitoring costs, leading to stronger governance in these firms.

Another line of reasoning is that CEOs with higher reputation may be overconfident, especially given that they are perceived as possessing high ability by the market and because they feel that their employment prospects are secure. This overconfidence may lead to the CEOs making suboptimal decisions even if the CEOs's incentives are properly aligned with their firms' (Malmendier and Tate, 2005). For example, overconfident CEOs may overestimate the returns to their investment projects and also take on unnecessary risks, which may be detrimental to their firms. They may also overestimate their ability to earn returns and may overpay for target companies and undertake value-destroying mergers (Malmendier and Tate, 2008) or engage in fraudulent actions (Schrand and Zechman, 2008).

The preceding discussion is based on the assumption that firms feel that the cost of opportunistic/sub-optimal actions by the more reputable CEO is higher than the costs of monitoring such a CEO based only on his greater perceived ability. Consequently, the firms have stronger monitoring mechanisms in place.

Boards of directors also face both internal and external pressure in gauging the consequences of their monitoring decisions. For example, Hirshleifer and Thakor (1998) argue that the threat of takeover and the subsequent likely displacement of the boards (if the board is viewed as lax and board replacement costs are not high) force these boards to monitor their CEOs more closely.[16] However, there can be agency costs between boards and shareholders. For example, boards may hesitate to monitor high-reputation CEOs for fear of "rocking the boat" and possibly reducing the directors' chances of gaining additional director positions in other firms. Furthermore, CEOs may be able to negotiate less board monitoring of themselves; CEOs and boards can also collude in actions that further their common goals but may be detrimental to the shareholders' goals (Graziano and Luporini, 2003). In such situations, shareholders may need to employ stronger and broader governance mechanisms to keep both the CEOs and directors in check.[17]

The preceding discussion leads to this study's second hypothesis stated in alternate form:

H_2: Firms whose CEOs possess higher reputation display stronger governance, compared to firms whose CEOs possess lower reputation, ceteris paribus.

Non-linear relation between CEO reputation and governance strength

A third argument is that the above hypotheses can be viewed as being derived from competing economic forces rather than competing theories. Consequently, it is possible that there is actually a non-linear relation between CEO reputation and governance strength as these forces manifest themselves at different levels of CEO reputation. Based on the theoretical analyses in this study, firms have weaker monitoring mechanisms when the CEOs' reputation is greater given that monitoring costs are likely to be higher than costs of opportunistic actions by the CEOs. This is because the CEOs are perceived to have greater ability and are inherently motivated to engage in beneficial actions to the firm to protect or enhance their reputation – here, reputation acts as a disciplinary mechanism and substitutes for costly monitoring mechanisms. However, beyond a certain level of CEO reputation, when CEO reputation is very high, the CEOs are more likely to be pressured into engaging in opportunistic actions to maintain their reputation for career or other reasons. Alternatively, at very high reputation levels, CEOs may become overconfident and engage in suboptimal/opportunistic actions. Hence, costs due to opportunistic or otherwise suboptimal actions are now higher than monitoring costs and firms have stronger monitoring mechanisms in place.

It is conceivable that this non-linear relation is actually U-shaped due to the existence of greater monitoring at low levels of reputation based on lower perceived ability and greater likelihood of opportunistic actions, and also at very high levels of reputation due to greater likelihood of opportunistic actions; less monitoring exists at intermediate levels of reputation due to greater perceived ability and less likelihood of opportunistic actions. This leads to this study's third hypothesis stated in alternate form:

H_3: CEO reputation and governance strength are negatively related; however, beyond a certain level of reputation, this relation becomes positive, ceteris paribus.

To summarize, this section provides competing hypotheses on the relation between CEO reputation and corporate governance strength based on how CEO reputation affects the costs of monitoring versus the costs of opportunistic actions inside firms. Therefore, it is an empirical question as to which hypothesis is supported. The next section discusses the sample selection and the measures used to test these hypotheses.

3. Sample Selection and Measures Used

3.1 Sample

To determine our sample, I identify firms with complete data across the following databases: the Investor Responsibility Research Center (IRRC), Compustat, CRSP, and the Dow Jones News Retrieval Service. From the IRRC director and governance databases, I collect data on board characteristics and shareholder rights. Data on CEO characteristics are obtained from the Dow Jones News Retrieval Service and the Execucomp database in Compustat, and data on other firm characteristics are obtained from the Industrial database in Compustat and CRSP. To test the relations between CEO reputation and the different measures of governance, I generate three samples in this study.[18]

The first sample (hereafter "board sample") is based on governance measures determined by only board characteristics and comprises observations on 991 CEOs, 967 companies and 417 industries (at the four digit SIC code level) for 1,887 firm-years over a three-year period from 1996 to 1998. The second sample (hereafter "shareholder rights sample") is based on a governance measure determined by only shareholder rights and consists of 1,534 firm-year observations for 929 companies and 1,019 CEOs across 401 industries for the years 1993, 1995, and 1998. The third sample (hereafter "total governance sample") is based on a combined governance measure consisting of data on board characteristics and shareholder rights, including 712 observations for 712 CEOs, 712 companies, and 343 industries for the year 1998. All dollar items are CPI-adjusted to year-2000 dollars to adjust for the effects of inflation. Where there is a change in CEO in a particular year, the CEO that left her office during the year is kept as CEO in the sample for that year only if she has remained CEO for at least six months in that year; otherwise the incoming CEO is kept as CEO.[19] The measures used in this study are discussed next. Details on how these measures are computed are provided in appendix B.

3.2 Measures

3.2.1 Dependent variable – Corporate Governance

Given the multi-dimensional nature of corporate governance, selecting a suitable measure of corporate governance is difficult, with several different measures proposed in the literature. My focus is on the extent of

monitoring inside firms. Consequently, to measure corporate governance, I use board strength (measured by board size, CEO-chairman-of-the-board separation, board independence, director inattendance at board meetings, and an aggregate board index), the extent of shareholder rights, and overall governance strength, totaling 7 measures encompassing 28 different governance mechanisms.[20] I discuss these measures next.

Board size

I measure board size (BSIZE) by the number of directors on the board (Yermack, 1996). Yermack (1996) finds a negative correlation between board size and firm value, verifying predictions by Jensen (1993). He further finds no consistent association between board size and firm value for board sizes below six, and recognizes that his sample, dominated by firms with large boards, is inappropriate for testing hypotheses about smaller boards. Bhagat and Black (2002) find a negative correlation using the same performance measure used by Yermack but a different result using other measures of performance. Eisenberg, Sundgren, and Wells (1998) also find a negative relation between board size and firm performance using a sample of small and midsize Finnish firms, showing that Yermack's result also extends to smaller firms. Evidence from these studies suggests that board size could vary across firms as it is possible that different board sizes may be optimal for different firms.

As conventionally defined in the literature, smaller boards reflect greater monitoring and board strength, as easier communication and coordination allow more efficient monitoring (Yermack, 1996). In contrast, larger boards face higher coordination costs and free rider problems, reducing the effectiveness of monitoring (Lipton and Lorsch, 1992). For example, the larger the number of directors on a board, the more difficult it is for each director to express his or her ideas and opinions. This leads to less influence on decision-making by any given director on the board and, consequently, fewer incentives to bear the private costs of investing in information and actively monitoring the firm's managers, leading to free riding by the director. However, a major advantage of large boards is the collective information the board possesses about various strategic issues (e.g., competition and technology). Thus, the choice of board size in firms is determined by the tradeoff between the aggregate information that large boards possess and the costs of decision making by large boards. It is likely that this tradeoff varies across firms resulting in different optimal board sizes across firms.

Separation of CEO and chairman-of-the-board roles

I denote the separation of CEO and chairman-of-the-board roles by an indicator variable (SEPCHAIR) that equals 1 if the CEO and chairman are not the same in the firm, and 0 otherwise (Fama and Jensen, 1983; Jensen, 1993). CEO and chairman-of-the-board separation has generally been argued to be beneficial to shareholders and reflective of greater board strength and monitoring of the CEO (e.g., Fama and Jensen, 1983; Rechner and Dalton, 1991; Jensen, 1993; Goyal and Park, 2002). A major benefit of separating these roles is the independent oversight of the CEO it encourages, fostering managerial accountability and possibly reducing agency conflicts between the CEO and the shareholders.

In contrast, however, some studies find evidence that there is no relation between this separation of roles and performance in entrepreneurial firms (e.g., Daily and Dalton, 1992), and that the combination of these roles is not associated with inferior firm performance (e.g., Brickley et al., 1997). Information sharing between the CEO and a non-executive chairman may be costly, especially when the CEO has unique, firm-specific information about competitive conditions, the firm's operations, and other proprietary information. Furthermore, it may be costly to communicate this information to the non-executive chairman in a timely, sufficiently informative, and efficient manner to facilitate decision-making. Finally, the CEO may not have the necessary flexibility in decision-making and there may be unnecessary conflicts between the two individuals.

The preceding discussion suggests that there may be a tradeoff between combining and separating the CEO and chairman roles and that this could vary across firms.

Board independence

I measure board independence (INDEP) by the percentage of outside directors who are not affiliated with the firm (Weisbach, 1988). The independence of directors who serve on the board is important in increasing board strength and monitoring of the CEO, as conventionally defined in the literature (e.g., Fama and Jensen, 1983; Weisbach, 1988). In the literature, it is commonly assumed that insider directors are more likely than outsider directors to have close relationships with the CEO. Thus, they are less likely to be better monitors of the CEO than outsider directors. However, according to some studies, insiders may be better monitors than outsiders (e.g., Core et al., 1999; Kumar and Sivaramakrishnan, 2007; Drymiotes, 2007) as they are more aware of the

firm's operations than outsiders and may be keen to remove an inefficient CEO so that they can be promoted to the CEO position. Moreover, outsider directors may have neither the time nor information required for such monitoring (Fich and Shivdasani, 2006).

Evidence on the relation between board independence and firm performance is mixed. Some studies show that poor firm performance leads to a higher proportion of independent directors (e.g., Hermalin and Weisbach, 1988). However, some find no evidence of a relation (e.g., Klein, 1998) while others find that firms with above-average stock performance increased their proportion of independent directors on their board (Denis and Sarin, 1999). This suggests that firms may face a tradeoff between having more outsiders and insiders on the board. Thus, the proportion of outsiders relative to insiders could vary across firms. For my study, I assume that greater board independence is associated with greater monitoring of the CEO, consistent with much prior research.

Director inattendance at board meetings

I measure director inattendance at board meetings by an indicator variable (NOT_ATTEND) that equals 1 if any director on the board does not attend at least 75% of the board meetings in the firm, and 0 otherwise. Director inattendance at board meetings may reflect a lack of interest by the director in monitoring the CEO. Studies that allude to the importance of board meetings are Lipton and Lorsch (1992) and Conger, Finegold and Lawler III (1998). These meetings allow more time for the directors to confer and act upon important strategic issues, including monitoring the CEO. An opposing view is that board meetings are not necessarily useful because the limited time the directors spend together is not used for the meaningful exchange of ideas among themselves or with management (Jensen, 1993), reflecting the fact that CEOs almost always set the agenda for board meetings. Furthermore, the meetings may increase costs in managerial time, travel expenses for the directors, and directors' meeting fees. These costs may outweigh the benefits associated with the meetings.

The preceding discussion suggests that the benefits and costs of board meetings, and hence their frequency, could vary across firms. It also suggests that director attendance at board meetings may be associated with greater or less monitoring, and hence may vary across firms. In an empirical study, Vafeas (1999) finds that the annual number of board meetings increases following share price declines and operating performance of firms

improves following years of increased board meetings, suggesting that greater attendance at board meetings can be associated with greater monitoring of the CEO. Therefore, I adopt the notion that greater attendance at board meetings is associated with greater monitoring of the CEO in my study.

Aggregate board strength

I construct an overall index of board strength (BINDEX) by computing an average of ranked percentiles (ranked in order of increasing board strength) of the 4 different board characteristics used in this study (Gillan et al., 2006). As there may be tradeoffs between the board measures, an overall board index captures aggregate board strength (Gillan et al., 2006). By construction, therefore, greater values of this board index measure reflect greater monitoring of the CEO.

Shareholder rights

I measure the extent of shareholder rights by the g-index (labeled CINDEX). A higher g-index indicates weaker shareholder rights and greater CEO power, reflecting weaker monitoring of the CEOs by their firms, and hence weaker corporate governance, as conventionally assumed in the literature. This index measures the power-sharing relationship between shareholders and management in a firm. It was first advocated by Gompers et al. (2003) and has since been used extensively in research to proxy for shareholder rights (e.g., Cremers and Nair, 2005; Core et al., 2006). The g-index is based on 24 governance provisions that are classified into four categories of management power: (1) tactics for delaying hostile bids, (2) voting rights, (3) director/officer protection; and (4) other takeover defenses.[21] Each firm's g-index is the sum of points, where one point is awarded for the presence of each possible governance provision.

Prior studies yield mixed evidence on the relation between the extent of shareholder rights in firms and firm performance. Gompers et al. (2003) show that firms with stronger shareholder rights have risk-adjusted stock returns that are 8.5% higher than firms with weaker shareholder rights in the 1990-1999 period. However, while they find persistent underperformance in stock returns for firms with weak shareholder rights, they do not find significant underperformance in firm operating performance using accounting return on equity. For the 1990 to 2001 period, Cremers and Nair (2005) find that the Gompers et al. (2003) finding is strengthened when other governance mechanisms are interacted with shareholder rights. They also find cross-sectional differences in the

strength of the relation between these interactions and firm performance using several measures of firm performance. More recently, however, Core Guay, and Rusticus (2006) provide evidence inconsistent with the notion that shareholder rights cause future abnormal stock returns, although they find significant underperformance in firm operating performance using accounting return on assets. The evidence from these studies collectively suggests that stronger shareholder rights may be beneficial in some firms whereas weaker shareholder rights may be beneficial in others.

Overall governance strength

Finally, I construct an overall governance index (TOTINDEX) for each firm by computing an average of percentiles (ranked in order of increasing governance strength) of the 28 governance mechanisms used in this study.[22] By construction, a higher value for this index reflects greater monitoring of the CEOs by their firms. This index controls for possible asymmetric weights placed on and tradeoffs between the different governance dimensions by firms while capturing overall governance.

The preceding discussion suggests that the relation between different governance measures and firm performance is inconclusive as stronger or weaker governance could lead to stronger firm performance. Thus different optimal governance structures could arise across firms due to their varying costs and benefits. In my study, I examine how CEO reputation plays a role in influencing these costs and benefits, and therefore different optimal governance structures across firms.

Panel A of table 1 presents summary board statistics for the firms in my sample. We see that there are approximately 10 board members on average in firms, 26 to 28% of the firms have a separate CEO and board chairman, 63% of the directors on boards are independent, 22% of the directors attend less than 75% of the board meetings, and firms have a percentile ranking on overall board strength of about 65 to 67% on average. The board statistics in my sample are consistent with those found in prior research (e.g., Klein, 2002; Gillan et al., 2003). Panel B of table 1 shows that the mean shareholder rights score (g-index denoted by CINDEX, the charter provisions index) is 9.57 out of a possible 24. This value is consistent with those found in prior research (e.g., Gompers et al., 2003). Panel C of table 1 shows that the mean overall governance strength percentile ranking is around 82%. This statistic shows that overall governance for the firms in my sample is strong on average.

Taken together, the descriptive statistics suggest that governance is moderately strong on average for the firms in my sample. However, with the exception of the charter provisions index, the standard deviations for the governance variables are relatively large, suggesting a large variation in governance strength across firms.

3.2.2 CEO reputation

As my main proxy for CEO reputation, I use lagged CEO press coverage, a measure which is widely used in the accounting, finance, economics, strategy, and management literature to proxy for CEO reputation (e.g., Milbourn, 2003; Francis et al., 2006; Hamilton and Zeckhauser, 2004; Park and Berger, 2004; Rajgopal et al., 2006).[23] There is a growing trend in the literature demonstrating the key role of the media as an information intermediary (e.g., Huberman and Regev, 2001; Dyck and Zingales, 2002, 2003; Mullainathan and Shleifer, 2005; Tetlock, 2007). Miller (2006) shows that the business press provides economic information that is useful to various firm stakeholders. In particular, he finds that the business press reproduces information provided by other information intermediaries like analysts, auditors and lawsuits, and also provides information to the public based on thorough original investigation and analysis. Similarly, Bushee et al. (2007) show that the press is an independent information intermediary and is vital in reducing information asymmetry between the firm and its investors. Specifically, they find that greater business press coverage is associated with greater absolute firm returns and trading volume at the time of an earnings announcement. Other recent studies show that the content of financial media can predict firm asset prices, future stock returns and their volatility, and cost of capital (e.g., Tetlock et al., 2007; Kothari et al., 2008).

Greater press coverage for a CEO suggests that the CEO is generally perceived by the media as a more successful leader, compared to CEOs whose press coverage is less (Hayward and Hambrick, 1997; Hayward et al., 2004). As an illustration, Hamilton and Zeckhauser (2004) find that the top 40 CEOs of firms in the S&P 200 accounted for 80% of the CEO press coverage in 1995, 1996, and 1997. Such coverage reflects media perceptions of CEOs, as the media attributes firm performance to the CEO (Meindl, Ehrlich, and Dukerich, 1985).[24] In the event that CEOs do not possess high reputation at the time of their press coverage, their reputation will likely increase after coverage in a positive light.

These studies collectively suggest that CEO press coverage is a good proxy for CEO reputation as a firm's stakeholders are likely to look to the press to gauge the reputation of the firm's CEO, especially if these stakeholders lack the time and expertise to collect and understand the necessary information, or the ability to monitor the CEO's actions. Additionally, the CEO is also likely to be aware of the extent of the market's perception of his ability based on the press coverage of the CEO, which will determine his actions and the extent of firm monitoring.

I measure lagged CEO press coverage as the number of business-related articles returned by the Dow Jones News Retrieval Service in which the CEO's name appears at least once over a time period of five years prior to the Execucomp data year.[25] Only selected business publications are searched; these include newswires, business periodicals, and major newspapers. I provide full details of the search methodology in appendix A, taken almost *ad verbatim* from Milbourn (2003). This measure is skewed to the right. Its mean value of 131.70 is much larger than its median value of 70 (the raw statistics are not reported). Therefore, I use its natural log transformation. I label this measure DJHITS. A higher DJHITS measure denotes higher CEO reputation.

Alternative interpretations of CEO press coverage

Although it is often the case that CEOs are mentioned for their positive attributes, it is conceivable that they could also be mentioned for undesirable reasons such as scandals. However, an advantage of my sample period of 1993-1998 (the period for which I have data on CEO press coverage) is that it does not contain any of the more recent abundant negative press about CEOs such as Kenneth Lay and Bernie Ebbers, which has contributed to a significant increase in negative CEO coverage from 2000 onwards (Hamilton and Zeckhauser, 2004). Such negative articles will only add noise to our analysis without having monitoring implications for firms as it is conceivable that to the extent that some CEOs receive negative press coverage, these CEOs are less likely to survive and remain in their firms in future periods.[26]Additionally, the period after 2000 witnessed significant regulation activity pertaining to promoting stronger governance (as conventionally defined) like more stringent listing rules by NYSE and NASDAQ, and the Sarbanes Oxley Act (2002), which could add noise to my analysis and/or reduce variation in governance strength across firms, resulting in lack of power to test my hypotheses. Therefore, the costs associated with hand collecting press coverage data from more recent years

outweigh the benefits from such data. Conditional on surviving as CEO suggests that historical press coverage was most likely nonnegative. Another argument is that even though CEOs are mentioned in the press for issues unrelated to performance like scandals, etc., this is unlikely to influence the market's perception of the CEO's ability. Consequently, it is likely that a higher number of CEO mentions in the media is associated with a more favorable CEO reputation, on average, for our sample.

In table 2, I provide summary statistics of business article quality pertaining to the CEO for a random subsample of fifty CEOs in Execucomp selected in each of the years 1993 to 1998.[27] These statistics show that very few negative articles appear in print during our sample period. Based on summarizing the percentages of total articles read that are strictly favorable, and the percentage that are strictly nonnegative (i.e., those that were either strictly favorable or neutral to favorable), the first column shows that on average, for the 1993-1998 period, 20.5% (median value of 15%) of the articles associated with these 50 CEOs are strictly favorable, and 90% of articles on average (median value of 100%) are strictly nonnegative. The remaining columns display similar statistics for each year in this period. Conducting more comprehensive analyses for the 1992 to 2001 period, Francis et al. (2006) and Rajgopal et al. (2006) also show that press coverage is generally associated with favorable mentions of the CEO. For example, Francis et al. examine the tone of CEO coverage for 50 articles picked at random from their sample every year for ten years (for a total of 500 articles) and find that the tone is favorable towards the CEO 95% of the time. Thus, this evidence supports the notion that coverage in business publications is associated with favorable assessments of the CEO on average (Park and Berger, 2004).

A related concern with this proxy is that press coverage may be biased toward particular firms or industries, such as those specializing in information technology, or particular CEOs who have high visibility unrelated to ability.[28] Thus, some CEOs may receive a disproportionately high level of press coverage, while others in smaller firms or less-publicized industries may receive less coverage. In my sample, any biases in coverage would cancel each other out due to the large number of observations. In a later section, I control for observed and unobserved CEO, firm, and industry characteristics that could create cross-sectional differences that might affect CEO reputation. I find that the results are robust to such characteristics.

The preceding discussion suggests that greater press coverage of the CEO is generally associated with higher CEO reputation. Thus, DJHITS is a good proxy for CEO reputation.

3.2.3 Control variables

In the regressions in the next section, I include control variables documented in prior research as affecting corporate governance (e.g., Gillan et al., 2003, 2006; Linck et al., 2007). Specifically, SALE, VOLAT, MTB, RD, TENURE, and STOCKOWN denote the natural log of sales, volatility of monthly stock returns, market-to-book ratio, research and development intensity, CEO tenure in the firm, and the lagged values of CEO stock and options ownership, respectively. SALE proxies for firm size, whereas VOLAT proxies for firm risk. Both MTB and RD proxy for investment opportunities.

3.3 Univariate analysis

Table 3 presents the Pearson correlation matrix for the independent variables. Panels A, B, and C provide correlations among the variables in the board sample, shareholder rights sample, and total governance sample respectively. Across all three panels, no significantly high correlations emerge among the independent variables.

The correlations in table 3 provide three sets of findings. First, with the exception of board independence, the correlations among the governance variables indicate consistency in their implications for monitoring intensity as conventionally defined in the literature. The correlations also indicate complementary relations among the governance variables. Second, the correlations show that higher CEO reputation is generally associated with less board strength, weaker shareholder rights, and weaker overall governance. Thus, I find preliminary support for my first hypothesis. Third, with the exception of board independence, the associations suggest that larger firms have weaker governance along many dimensions whereas riskier firms, firms with growth opportunities, and those with greater stock and options holdings have stronger governance along the same dimensions. The associations also indicate that CEO tenure has positive associations with governance strength along some dimensions and negative associations along others, suggesting that the association between CEO tenure and governance may be multidimensional. Finally, while CEO age is negatively associated with governance strength along many dimensions, it is insignificantly related with governance strength along a few

dimensions, suggesting that the relation between CEO age and governance strength may also be multidimensional.

Interestingly, the associations between board independence and the other governance variables are generally opposite in direction to those among the other governance variables, suggesting that greater director independence may not necessarily imply greater board monitoring and stronger governance or that there may be tradeoff between this governance dimension and others. In addition, the associations between board independence and the control variables are also opposite in direction to those between the other governance and control variables. In the next section, I discuss the methodology I use to conduct multivariate analyses to confirm the univariate associations. In this section, I also discuss the results of these tests.

4. Multivariate analysis

4.1 Methodology

I employ the following regression model to test hypotheses one and two:

$$\text{GOVERNANCE PROXY} = \beta_0 + \beta_1 \text{DJHITS} + \beta_2 \text{SALE} + \beta_3 \text{VOLAT} + \beta_4 \text{MTB} + \beta_5 \text{RD} + \beta_6 \text{TENURE} + \beta_7 \text{STOCKOWN} + \beta_8 \text{CEOAGE} + \text{YEAR INDICATOR} + \varepsilon \quad \text{(equation 1)}$$

The definitions for the above variables are given in appendix B. GOVERNANCE PROXY represents the range of governance variables discussed above. The coefficient β_1 measures how the governance proxy varies with CEO reputation and is therefore the test of my hypotheses. As we test competing hypotheses in this study, I offer no specific prediction on the direction of this coefficient. Consistent with prior research, I predict a negative relation between governance strength and SALE and positive relations between governance strength and VOLAT, MTB, RD, and STOCKOWN (e.g., Lehn et al., 2005; Linck et al., 2007).[29] Year indicator variables are included in the regressions to control for observed and unobserved year effects but not reported for brevity.

4.2. Results

Table 4 provides the results for OLS and logistic regressions conducted on equation 1. Columns I, III, and V provide results for OLS regressions where BSIZE, INDEP, and BINDEX are included as the dependent variable, respectively. The coefficient on DJHITS, β_1, for these variables is 0.177 (significant at 1% level), 0.297

(insignificant at conventional levels; p value = 0.21), and -0.596 (significant at 1% level), respectively. Columns II and IV provide results for logistic regressions where SEPCHAIR and NOT_ATTEND are included as the dependent variable, respectively. The coefficient on DJHITS, β_1, is -0.115 and 0.111 (both statistically significant at 1% level), respectively. The results on board strength show that when CEO reputation is higher, board size is larger, CEO/chairman separation is less likely, director meeting inattendance is higher, and overall board strength is less. Collectively, these results show that CEO reputation is associated with less board strength.

The finding of lower monitoring with higher CEO reputation may reflect the board's advisory, versus governance, role in such cases (Adams and Ferreira, 2007). However, this possibility is less likely in my study as CEOs with higher reputations are perceived as having higher ability, and thus less need for an advisory board.

Returning to table 4, columns VI and VII provide the OLS regression results where CINDEX and TOTINDEX is the dependent variable, respectively. The coefficient on DJHITS, β_1, is 0.072, (statistically significant at 5% level) and -0.678 (statistically significant at 1% level), respectively. These results show that when CEO reputation is higher, firms have weaker shareholder rights and overall governance.

The coefficients on the control variables are generally consistent with those found in prior research (e.g., Gillan et al., 2003, 2006; Baker and Gompers, 2003; Lehn et al., 2005; Boone et al., 2007; Linck et al., 2007) and with the univariate analysis discussed in section 3. These studies test the associations between these predominantly firm-level control variables and no more than three governance measures. In contrast, I provide comprehensive evidence on the associations between these variables and a wider range of governance measures. Consequently, I provide new evidence on associations concerning additional governance dimensions that are not previously documented in the literature.[30] More specifically, I show that firm size is positively associated with director inattendance at board meetings, and firms with growth opportunities have less director inattendance at board meetings, greater aggregate board strength, stronger shareholder rights, and stronger overall governance. My results also show that greater CEO tenure is associated with stronger shareholder rights and overall governance, and that greater lagged CEO stock and options holdings are associated with a greater likelihood of the CEO and chairman-of-the-board roles being separate, greater aggregate board strength, stronger shareholder rights, and stronger overall governance. Finally, I show that older CEOs are associated with less aggregate board strength, weaker shareholder rights, and less overall governance strength. Collectively, these results contribute to

the literature by providing evidence that could explain some heterogeneity in governance strength across firms along several dimensions.

My study also provides robust evidence on the relations between CEO attributes and a few governance mechanisms documented by these prior studies, and on many more relations between these types of variables not documented by these studies. The results documented in some of these prior studies are sensitive to regression specifications, and the authors fail to control for unobserved firm or CEO effects that could affect governance, thus subjecting their results to correlated omitted variable bias. For example, Boone et al. (2007), focusing only on smaller and younger firms and excluding firms that have been public for more than ten years, show that greater CEO share ownership and tenure (reflecting CEO entrenchment) are individually negatively associated with board independence. However, they find only weak evidence of a negative relation between CEO tenure and board independence when CEO tenure and stock ownership are both included in the same regression.[31] I find that the negative relation between CEO tenure and board independence persists even after including lagged values of CEO stock and options holdings. One explanation for Boone et al's findings is that, by excluding CEO options holdings, they do not fully account for a large portion of CEO wealth. Furthermore, they include contemporaneous CEO stock holdings and not lagged values of these holdings as I do.

In general, however, the results for the multivariate analysis conducted in table 4 support the results for the univariate analysis in section 3 and show that, when CEO reputation is higher, board strength is generally less, shareholder rights are weaker, and overall governance strength is less. Therefore, I find preliminary evidence that firms that have CEOs with a higher reputation have weaker governance mechanisms in place.

4.3 Additional tests

Additional control variables

It is conceivable that additional governance measures may influence the dependent variables in table 4 (Gillan et al., 2003; Hartzell and Starks, 2003). Therefore, I rerun these regressions controlling for these additional governance variables.[32] I also include other control variables documented in prior studies as influencing firm monitoring. These variables are: return on average equity (ROE) and stock return (RET) to proxy for contemporaneous firm performance; directors' stock holdings (DIRSTOCK); institutional stock

holdings (INSTHOLD); debt leverage (LEVERAGE); and short-term CEO incentive compensation mix (INCENTMIX).[33] I provide the definitions and methods of computing these measures in appendix B.

Table 5 presents the results for these regressions. Although the sample size for these regressions is smaller due to database merging, the adjusted R^2 for these regressions are generally larger compared to those in table 4.[34] The overall findings in this study remain after including the additional control variables.[35]

In table 5, I also provide evidence on other relations not previously documented in the literature.[36] More specifically, I show that better firm stock return performance is associated with less aggregate board strength, stronger shareholder rights, and greater overall governance strength. I also show that firms with greater director stock holdings are associated with a higher likelihood of the CEO and chairman roles being separate; greater proportion of institutional stock holdings is associated with smaller boards, a lower likelihood of the CEO and chairman roles being separate, and more independent boards. Greater debt leverage is associated with a lower likelihood of the CEO and chairman roles being separate and higher director inattendance at board meetings. Finally, greater proportion of short-term incentive compensation is associated with larger boards.

My results show that while firm stock performance is negatively associated with board independence, firm accounting performance is positively associated. Hermalin and Weisbach (1988) fail to find evidence that earnings-based performance is related to board independence although they also find a negative association between stock-based performance and board independence. Greater institutional holdings are generally associated with stronger governance while greater book leverage and a higher proportion of short-term incentive compensation are generally associated with weaker governance.[37]

Non-linear relation between CEO reputation and governance strength

To test my third hypothesis, and the existence of a non-linear relation between CEO reputation and governance strength, I rerun the regressions in table 4 including a quadratic term for CEO reputation. In particular, I include a squared term for lagged CEO press citations in addition to the other variables used in table 4. I also include squared terms for the other CEO and firm variables to control for the possibility that they may have non-linear relations with governance strength. Since diagnostic checks I conduct indicate multicollinearity, I center the variables first before taking their squared values (Aiken and West, 1991). I center these variables by

subtracting their means from their original values. This procedure resolves the multicollinearity problem and I proceed with my analysis using these transformed variables. In my analysis, I don't use the logged values of variables like I do in table 4 to carefully determine the precise nature of the non-linear relations.

The results for this regression are given in table 6. Interestingly, I find that CEO reputation displays a U-shaped relation with governance strength. In terms of the impact on governance strength, the coefficient on the lagged CEO press citations variable is generally negative whereas the coefficient on the squared lagged CEO press citations variable is generally positive, both statistically significant at conventional levels. The coefficient on the squared term may appear to be economically insignificant. However, this is due to using squared values for a centered variable that is skewed. Below I show that the relation between CEO reputation and governance strength is both economically and statistically significant at all levels of reputation.

A negative coefficient on lagged CEO press citations and a positive coefficient on its squared term are necessary but may not be sufficient for a U-shaped relation to exist. To confirm the existence of such a relation, I differentiate my regression equation with respect to lagged CEO press citations and set the resulting expression to zero. Doing this, I am able to determine the value for the lagged CEO press citations variable at the minimum point of the U-shaped curve. The turning points I obtain for my centered lagged CEO press citations variable are approximately 3,295, 1,144, 1,452, 557, 2,250, 709, and 887, where BSIZE, SEPCHAIR, INDEP, NOT_ATTEND, BINDEX, CINDEX, AND TOTINDEX are the dependent variables, respectively. These values are within the range of my centered CEO press citations variable of -137.12 to 4,533.88 for the board sample, -132.55 to 4,963.45 for my shareholder rights sample, and -129.75 to 2,389.25 for my total governance sample. This suggests that the minimum point of my U-shaped curve exists within the data range for the CEO press citations variable in my sample.

I conduct an additional test to confirm the existence of a U-shaped relation between CEO reputation and governance strength. Specifically, I conduct a piecewise linear regression similar to the regression I conduct in table 6 (without centering the variables and without including the squared terms) with a break point at the 95th percentile of observations for the CEO press mentions variable. I select the 95th percentile for the break point because the minimum points for all my regressions lie in the top 5% of observations for the CEO press mentions variable. I obtain the following regression coefficients for the bottom 95% and top 5%, respectively: 0.004

(significant at 1% level) and 0.001 (significant at 5% level) for BSIZE, -0.003 (1%) and 0.002 (1%) for SEPCHAIR, 0.007 (10%) and 0.004(10%) for INDEP, 0.002 (5%) and -0.001 for NOT_ATTEND, -0.01 (1%) and 0.002 for BINDEX, 0.001 (10%) and -0.001 (1%) for CINDEX, and -0.01 (1%) and 0.002 for TOTINDEX. When I introduce an additional break point at the 25th percentile, I obtain coefficients of -0.15 (5%), -0.004, and 0.004 (10%) for INDEP; -0.093 (5%), -0.017 (1%), and 0.002 for BINDEX; and -0.081 (5%), -0.01 (1%), and 0.001 for TOTINDEX. The lack of statistical significance at conventional levels for the coefficient in the top 5% percentile is not a concern as I have limited power due to the considerably fewer observations (94 firm-years) in this category; the magnitude of this coefficient is large enough. Collectively, these coefficients are both economically and statistically significant and generally confirm the existence of a non-linear relation, specifically a U-shaped relation, between CEO reputation and governance strength. Thus, I find strong evidence supporting my third hypothesis.

Another interesting finding is that several CEO and firm variables also have U-shaped or inverted U-shaped relations with governance strength. Prior governance studies have typically assumed, theoretically or empirically, that these relations are linear.

Additional CEO reputation proxies: lagged 3-year industry-adjusted firm stock returns and CEO-of-the-year awards

As an additional check, I test whether this study's findings hold after including additional CEO reputation proxies, namely, lagged 3-year industry-adjusted firm stock returns, and CEO-of-the-year awards.[38] To the extent that cumulative firm stock performance, especially relative to the industry in which the firm operates, can be attributable to the CEO while the CEO is in office, it may be used as another proxy for CEO reputation. In contrast to the annual (contemporaneous) measures of performance included in the regressions in table 5, it is conceivable that cumulative firm performance over a longer period may better influence the market's estimate of a CEO's ability, as the latter is likely to have been gained over such a period.

This performance measure (labeled PERF) is computed by subtracting the average monthly return on an equally weighted portfolio for a firm's two-digit SIC industry over a 3-year period from the average monthly firm stock return over the 3-year period, scaling this difference by the standard deviation of the monthly industry

returns over the three-year period. The 3-year period comprises the three years before the Execucomp data year. When I use this measure, my sample reduces in size because only CEOs whose tenures as of the beginning of the data period are at least three years are retained in the sample.

Using CEO-of-the-year awards as a reputation proxy enables me to assess the impact of CEOs with *very high* reputation on governance strength.[39] The *Chief Executive* magazine has been granting an award to a CEO each year since 1987. The magazine's intended audience is CEOs and the award is chosen by a panel of CEOs. Thus, this award is an ideal proxy to capture very high CEO reputation. I use this proxy to see whether the positive relation between CEO reputation and governance strength that I document in table 6 beyond a certain level of reputation still exists. I assign a value of one to an indicator variable (labeled AWARD) if the CEO has received a CEO-of-the-year award, and zero otherwise. This indicator variable retains the same value for each CEO throughout the sample period. Since my analysis is cross-sectional in nature, this is not a concern. Additionally, my assumption that CEO award recipients enjoy a high reputation throughout our sample period even before they receive the award does not pose a major problem. This is because I am interested in comparing CEOs with very high reputation with other CEOs. As mentioned above, it is likely that CEOs who receive these awards would have enjoyed high reputation, higher than that of other CEOs, for a long period (including all the years in my sample period) even before receiving their awards.

Panel A of table 7 provides Pearson correlations between PERF and AWARD, and the board measures and other firm control variables for the board sample. The correlations show that PERF is positively correlated with board size and director inattendance at board meetings, and negatively correlated with CEO-chairman separation, and the aggregate board index. Thus there is evidence that PERF is negatively associated with board strength. AWARD is positively correlated with board size and CEO-chairman separation, and negatively correlated with the aggregate board index. Based on these correlations it is not possible to determine the relation between AWARD and governance strength. I investigate the nature of this relation further in the multivariate analysis below. Consistent with evidence in Malmendier and Tate (2009), the correlations also indicate that CEOs who receive the CEO-of-the-year awards are older, have larger stock and options ownership, and work for larger firms and firms with higher investment opportunities. In correlations using a larger sample including only AWARD as the reputation proxy (see below), I find that CEOs with high reputation are associated with less risky

firms (risk measured as the volatility of stock returns). Panel B of table 7 shows that the correlation between CEO press coverage and PERF is 0.08 (significant at 1% level) and that between CEO press coverage and AWARD is 0.03 (significant at 10% level); that between PERF and AWARD is 0.06 (significant at 5% level). These small positive correlations suggest that these three reputation proxies are essentially orthogonal but related to one another, and may be picking up different determinants/dimensions of CEO reputation.[40]

Table 8 provides results for regressions I conduct similar to those in table 6, including PERF and AWARD as additional CEO reputation proxies to lagged CEO press citations. The coefficients for lagged CEO press mentions and (lagged CEO press mentions)^2 are generally similar to those in table 6, showing that including the additional reputation proxies in the regressions has not affected the analysis. Although a noisier reputation proxy, PERF also has a U-shaped relation with governance strength.

The coefficient for AWARD indicates a generally positive relation with governance strength, similar to the coefficients on (lagged CEO press mentions)^2 and (PERF)^2, confirming that when CEO reputation is very high, firms have stronger monitoring mechanisms in place. This result contradicts the claim in Malmendier and Tate (2009) that overconfident superstar CEOs who win awards and enjoy celebrity status are able to *extract rents* from their firms. If such CEOs are able to extract rents from their firms, we would expect these CEOs to negotiate weaker monitoring mechanisms in these firms, contrary to what I find. Malmendier and Tate also show that such highly regarded CEOs manipulate earnings, and Schrand and Zechman (2009) show that they are commit fraud, more than less reputable CEOs. My study's findings suggest that firms that employ such CEOs have stronger monitoring mechanisms in place possibly to curb the highly likely opportunistic or otherwise suboptimal actions by such CEOs.

I conduct another analysis including only AWARD as the reputation proxy without the other two reputation proxies. This enables me to use a longer sample period including more recent years. Doing this, I obtain 8,895 firm-year observations for the board sample for the 1996 to 2004 period, 5,538 firm-year observations for the shareholder rights sample for the years, 1993, 1995, 1998, 2000, 2002, and 2004, and 3,956 firm-year observations for the total governance sample for the years 1998, 2000, 2002, and 2004. The coefficients for AWARD I obtain from this analysis (not reported for brevity) are generally similar to their counterparts in table 8. However, they are now significant at conventional levels, probably due to greater power

by having more observations. Therefore, my results for AWARD hold for more recent years and confirm a positive relation between CEOs with very high reputation and governance strength.

4.4 Alternative explanations for study's findings

Bargaining Power Hypothesis

An alternative view and interpretation of my study's results, and another contribution of my study, is that it provides comprehensive empirical evidence on the bargaining power hypothesis advocated by Hermalin and Weisbach (1998). According to this hypothesis, when a CEO has greater bargaining power over her board of directors/firm based on her higher perceived ability, he is able to negotiate less monitoring by the board/firm. The board/firm monitors the CEO less, as greater monitoring increases the likelihood of firing the CEO.

It is conceivable that the CEO has bargaining power when he is perceived to be competent or is entrenched in the firm for other reasons. Prior studies proxy for competence with firm performance (e.g., Milbourn, 2003; Rajgopal et al., 2006) or with CEO press coverage (Milbourn, 2003; Rajgopal et al., 2006), and for entrenchment with CEO tenure, CEO stock holdings, and CEO age (e.g., Baker and Gompers, 2003; Linck et al., 2007; Boone et al., 2007). As mentioned above, these studies typically show how one of these dimensions of the CEO's bargaining power separately affects individual aspects of governance (e.g., no more than two measures of board strength or CEO incentives). My study contributes to the literature by providing comprehensive evidence on how these dimensions of a CEO's bargaining power affect a comprehensive range of governance mechanisms.

If we were to adopt a CEO bargaining power framework, my results collectively show that there are several dimensions to CEO bargaining power and that these dimensions vary with different governance mechanisms in different ways. For example, I show that greater CEO reputation results in larger boards whereas greater entrenchment results in smaller boards. Hence, the relation between CEO bargaining power and corporate governance can be construed as multi-dimensional in nature.

These results collectively provide comprehensive empirical evidence that the CEO bargaining power hypothesis espoused by Hermalin and Weisbach (1998) is not robust empirically or needs to be modified at best. In particular, the results suggest that while some CEOs may be able to influence their boards to monitor less, on

average, boards are less influenced by the CEOs and make their own decisions more independently of the CEO on how much to monitor. In particular, the U-shaped relation between CEO reputation and governance strength suggests that the CEO is not able to negotiate less monitoring when her reputation exceeds a certain level. The non-linear relations I document between governance strength and several other CEO-level variables also suggest the same.

Endogeneity of CEO Reputation – Reverse Causality

An alternative explanation for my findings is that causality runs from governance to CEO reputation. However, this is not a major concern in this study for several reasons. First, any positive effect of governance on CEO reputation would more likely arise from stronger governance. Thus, any bias generated by reverse causality in the above regressions would counter this study's initial finding of a negative relation between CEO reputation and governance. Second, the U-shaped relation between CEO reputation and governance strength that I document suggests that governance is endogenous and reduces the likelihood that causality goes from governance to CEO reputation as it is unlikely that both decreasing and increasing governance strength cause CEO reputation to increase. Third, developing a high CEO reputation takes a considerable amount of time. Since governance strength is likely to change more frequently than CEO reputation, especially for most of my governance variables, it would be less likely to have a major impact on CEO reputation on an annual basis. Fourth, governance is a choice variable whereas CEO reputation is not. Finally, lagged CEO press coverage (DJHITS) covers the 5-year period and lagged three-year industry-adjusted firm stock performance (PERF) covers the 3-year period *before* the current data year (when governance is measured), and AWARD retains the same value throughout the sample period in my study. Moreover, although DJHITS and PERF are lagged (and based on cumulative and consecutive years), the shareholder rights measure, CINDEX, is a contemporaneous measure and is measured every few years. Thus, regressing the governance proxy on my reputation proxies is unlikely to cause concerns of reverse causality.[41]

Another concern is that weak governance in firms allows the CEOs to engage in efforts to bolster the CEOs' reputation. However, this concern can be ruled out because it is likely that such efforts to bolster the CEOs' reputation would also be beneficial to firms with strong governance. Consequently, it is not evident that

firms with weaker governance are more likely than firms with stronger governance to allow the CEOs to engage in, or for the CEOs to succeed in, such efforts.

To more carefully address endogeneity concerns, I conduct additional checks. First, we conduct the regressions in table 4 including firm random effects. This controls for unobserved firm factors that could have given rise to endogeneity concerns. Since the sample in this study comprises panel data, by including these effects, I also control for unobserved firm characteristics that are constant for a given firm over time, but vary across firms. The results (not reported) show that controlling for unobserved firm factors does not alter this study's findings.[42] My results in the other tables are also generally robust to including firm random effects in the regressions.

Second, I conduct the analysis in table 4 using a changes specification controlling for industry fixed effects. Specifically, I regress the first difference in my governance proxies on the first difference in my main reputation proxy, CEO press coverage. The results (not reported) are qualitatively similar to those in table 4. However, where the first difference in board independence is the dependent variable, the coefficient on the first difference in lagged CEO press coverage is 0.008, which is positive and significant at the 1% level. This result shows that a positive relation exists between CEO reputation and board independence under the linearity assumption, and provides additional evidence on the ambiguity regarding board independence.

The additional checks I conduct show that this study's findings remain. These checks alleviate the endogeneity concerns discussed above and provide convincing evidence as to the causality of my findings – i.e., greater CEO reputation generally results in weaker corporate governance up to a certain reputation level, and stronger governance beyond this level.

Matching Hypothesis

Another alternative explanation for my results is that firms or industries with higher reputation may be more likely to need CEOs with higher reputation (Francis et al., 2006). Furthermore, when companies have higher reputation, their CEOs may acquire higher reputation by extension (Gary, 1986). According to the matching hypothesis, it may be appropriate to simultaneously model the choice of CEO and firm or industry. However, this is not necessary since my study focuses on how CEO reputation affects corporate governance.

Additionally, by including firm-level control variables and controlling for unobserved firm and industry effects in my regressions above, I control for several firm and industry factors that could confound my analysis.

I conduct additional tests where I include CEO random effects in addition to the control variables. By including these CEO effects, I avoid the omitted variable bias that could arise due to other CEO factors and control for unobserved CEO characteristics that are constant for a given CEO over time but vary across CEOs.[43] The results for these regressions (not reported) show that this study's findings are generally unchanged.[44] Thus, it is unlikely that unobserved CEO attributes may have played a role in influencing the findings in this study.

CEO Entrenchment Hypothesis

It can be argued that more reputable CEOs represent entrenched CEOs, and consequently, may be able to negotiate less monitoring by their firms. Therefore, an alternative explanation is that my findings on CEO reputation represent those for CEO entrenchment and not perceived CEO ability. However, this can be ruled out for several reasons. First, it is possible for CEOs to be entrenched in their firms without having high reputations. Thus, the link between CEO reputation and entrenchment is not clear. Furthermore, CEOs with higher reputation may not become entrenched in their firms as their likelihood of leaving their firms is higher due to the attractive labor market opportunities they face (Rajgopal et al., 2006). Second, I include CEO tenure, lagged CEO stock and options holdings, and CEO age in the regressions. These variables are suitable proxies for CEO entrenchment in the firm (Baker and Gompers, 2003; Boone et al., 2007). By including these variables in the regressions, I control for CEO power due to entrenchment. Third, CEO entrenchment can arise with CEOs who are corporate founders (Adams et al., 2005). However, as corporate founders are removed from my sample, this is not a concern. Fourth, CEO entrenchment can arise from a joint CEO/chairman position. In a separate analysis (results not reported), I control for this by including SEPCHAIR as a control variable in the regressions in table 4 (except where SEPCHAIR is the dependent variable). This does not change this study's findings.

CEO press coverage as a monitoring mechanism substituting for internal monitoring mechanisms

Finally, it is possible that CEO press coverage acts as a "watchdog", rather than being affected by CEO reputation, and therefore fulfils an important monitoring role for firms (Miller, 2006). Consequently, firms may have weaker governance mechanisms as external monitoring by the media substitutes for internal monitoring in

firms. This concern can be ruled out in four ways. First, I obtain generally similar findings by using the additional CEO reputation proxies. Second, this concern applies equally to both favorable and unfavorable CEO press coverage. Even unfavorable coverage can be the result of intense monitoring by the press. In contrast, my finding is based on weaker governance in firms as a result of coverage of the CEO in a favorable light. Third, the U-shaped CEO press coverage-governance strength relation we document suggests that the relation is due more to CEO reputation than to mere monitoring by the press. If external media monitoring substitutes for internal monitoring, it is inconceivable that such external monitoring would cause internal monitoring to increase beyond a certain level of CEO press coverage as we find. Finally, just because CEOs are not covered significantly by the business press does not imply that they are not monitored or followed by the press closely. It is likely that the press monitors most CEOs and may choose to report on ones that have high reputation. Therefore, less CEO press coverage may not imply weak monitoring by the press, and the conjecture that CEO press coverage and internal firm monitoring are substitutes can be ruled out.

Overall, this study's findings are robust to additional tests and alternative explanations. I provide evidence that there are tradeoffs among several governance mechanisms and complementary relations among others, and that CEO reputation and several other CEO and firm attributes play a role in influencing these tradeoffs and complementary relations. In the next section, I conduct sensitivity checks on this study's results.

5. Sensitivity checks

In another analysis, I conduct robust regressions. The robust regression weights the observations in proportion to their proximity to the mean value of the dependent variable and therefore minimizes the impact of outliers on the results.[45] In a separate analysis, I also conduct median regressions.[46] Finally, I include the other governance measures used in this study as additional control variables.[47]

Additional sensitivity tests I conduct are regressions with robust standard errors that correct for heteroskedasticity, Prais-Winston AR(1) regressions with robust standard errors to control for autocorrelation in the residuals, and median regressions with bootstrapping to obtain proper regression coefficients, standard errors, confidence intervals, when the distribution is non-normal (as for those in table 6) or unknown.

The above sensitivity analyses show that the findings in this study are robust. In the next section, I conclude this study, providing suggestions for future research.

6. Conclusion

In this paper, I empirically examine the effect of CEO reputation on the strength of governance mechanisms across firms. Although much prior research has treated governance as exogenous, little research has been conducted on governance as a choice variable. In addition, no prior study has examined how CEO reputation influences the strength of a range of governance mechanisms in firms. In my study, I find that firms whose CEOs have higher reputation generally have weaker governance across several governance mechanisms. This finding is robust to firm, industry, CEO fixed and random effects, potential alternative explanations, and sensitivity checks. After conducting additional tests, however, I find that the relation between CEO reputation and governance strength is U-shaped. Non-linear relations also exist between governance strength, and several other CEO and firm variables. I also find evidence that certain governance mechanisms don't have relations in the same direction with the CEO and firm variables as the other governance mechanisms, alluding to the multidimensional nature of governance.

A potential limitation of my study is that my findings may not be generalizeable to the period following the regulation in governance that promoted stronger governance as conventionally defined. However, rather than treat this as a limitation, I argue that my findings imply that such regulation may not be necessary since a variation in governance strength across firms may be optimal. Thus, a policy implication of this study's findings is to reconsider the question of how governance matters in firms. Since this study has shown that both stronger and weaker governance can be associated with more reputable CEOs, but at different levels of reputation, this suggests that weak governance may actually be optimal for certain firms whereas strong governance may be optimal for others. Thus, "strong" or "weak" governance as conventionally defined in the literature may not reflect "good" or "bad" governance, respectively, as assumed in much governance research, and efforts to "improve" governance may not be as useful as determining the appropriate governance mechanism, strong or weak, for a particular firm.

This study has made an important first step in showing that CEO attributes influence a range of corporate governance mechanisms, and could have played a vital role in determining how these governance mechanisms have arisen in firms. Further research on managerial determinants of corporate governance may be useful in explaining how governance mechanisms arise in firms over time, say by conducting longitudinal studies. Furthermore, this study has shown that different factors or settings give rise to different governance structures. Rather than promote a "one-size-fits-all" approach to governance, which the existing academic, practitioner, and policy circles espouse, it would also be fruitful for researchers to conduct detailed research, say through field studies, on different firms, industries, or other settings, to examine the nature of governance in different contexts. The different governance mechanisms examined in this study could take on different roles and forms in different contexts.

Appendix A – Identifying Dow Jones Article Counts

In any executive year, the reputation proxy DJHITS represents the total number of articles returned by the Dow Jones Retrieval Service that mention the CEO's name at least once over the preceding five-year period.[48] That is, if the executive data year is 1993, DJHITS is the total number of articles in which the CEO's name appears over the January 1988 to December 1992 time period. To be clear, only the total number of articles identified by the Dow Jones search are recorded in the full sample. These articles are not read individually to ensure that the correct CEO has been identified.[49] To minimize potential errors in the identification process, only the "Dow Jones-Selected Publications" list was searched. This list includes:

- Major News and Business Publications (112 international publications)
- Top 50 US Newspapers (several, such as *The New York Times*, are already included in the first group)
- Wires: Press Release Wires (six newswires)

Invariably, article counts for executives could be understated. For example, possible misspellings in Execucomp's name fields, shortened names (e.g. Bill for William), and so on, may return an empty or lower count. Similarly, the count could be overstated due to common names (e.g., Johnson), names combined with Jr. or III, and so on. However, there seems no obvious direction for such bias across the large sample of CEOs.

Appendix B - Definitions and Computations of Variables

Variables	Definitions	Method of computation
BSIZE	Board size	Number of directors on board (taken directly from database)
SEPCHAIR	Separate CEO-chairman dummy	Equals 1 if CEO is not the chairman; equals 0 otherwise
INDEP	Percentage of independent directors on board	As defined
NOT_ATTEND	Attendance_dummy	Equals 1 if any director on the board does not attend at least 75% of the board meetings; equals 0 otherwise
BINDEX	Board index	Average of ranked percentiles (in order of increasing board strength) of BSIZE, SEPCHAIR, INDEP, and NOT_ATTEND
CINDEX	Corporate by-laws and charter provisions index	Obtained directly from the data
TOTINDEX	Total governance index	Average of ranked percentiles (in order of increasing governance) of BSIZE, SEPCHAIR, INDEP, NOT_ATTEND, all 24 provisions that comprise CINDEX, and 6 state laws that offer antitakeover protection
DJHITS	Lagged log CEO article mentions	Natural log of number of articles in which the executive's name appears at least once over a time period of five years in selected business publications (see Appendix A)
PERF	Lagged 3-year industry-adjusted stock returns	[3-year average monthly return on firm's equity – 3-year average monthly return on equally-weighted portfolio for firm's two-digit SIC industry] / Standard deviation of average monthly industry returns over 3-year period
AWARD	Annual CEO-of-the-year award	Equals 1 if the CEO received the CEO-of-the-year award during the sample period; equals 0 otherwise
SALE	Log sales	Natural log of sales
VOLAT	Stock return volatility	Standard deviation of monthly company stock returns
MTB	Log (1 + market-to-book ratio)	Natural log of [1 + (number of outstanding shares*market price at end of fiscal year) / (total assets – total liabilities)]
RD	Log (1 + research and development intensity)	Natural log of [1 + (R & D expenditure / sales)]; R&D/sales set to zero for missing values
TENURE	Log CEO tenure	Natural log of number of years the CEO held that position

		continuously; number of years is calculated as the difference between the current fiscal year and the year in the 'date became CEO' field
STOCKOWN	Lagged log CEO stock and options holdings	Lagged natural log of value of stock and options holdings
CEOAGE	CEO age	The CEO's age in years
ROE	Annual return on equity	Earnings before extraordinary items / [(shareholders' equity at the beginning of year + shareholders' equity at end of year) / 2]
RET	Annual stock return	Obtained directly from Execucomp
DIRSTOCK	Natural log of directors' stock holdings as a proportion of outstanding shares in firm	Obtained director from the director database in IRRC
INSTHOLD	Proportion of stock owned by institutional investors	Obtained directly from Thomson Financial database
LEVERAGE	Book leverage	Total liabilities divided by total assets
INCENTMIX	Proportion of short-term incentive compensation	(bonus + other annual compensation) / total compensation where: total compensation = salary + bonus + other annual compensation + value of restricted stock grants + Black-Scholes value of stock options grants + long-term incentive payouts + other long-term compensation

Endnotes

[1]Bertrand and Schoar (2003) show that, controlling for observable and unobservable firm characteristics, manager fixed effects are incrementally important determinants of a wide range of corporate practices.

[2] Governance can be defined as the system of laws, rules, and factors that define the boundaries of operations (Gillan and Starks, 1998). Thus, according to this definition of governance, it reflects monitoring inside firms.

[3] The collapse of both Enron and Worldcom reflects, in part, the collapse of their respective CEOs' reputation.

[4] According to a recent global survey by Weber Shandwick Consultants and KRC Research, senior corporate executives attribute 63% of a company's market value to its reputation.

[5] Since the CEO is the human face of a firm, this argument implies that a high CEO reputation is always best for a firm and that the firm will always strive to have a reputable CEO at the helm of the firm. However, less reputable CEOs may exist in a firm because they are less costly than more reputable CEOs. Moreover, the less reputable CEOs may not have developed their reputations as yet. Thus we expect to observe variation in CEO reputation across firms.

[6] Greater board strength or stronger shareholder rights reflect greater monitoring.

[7] My study on CEO determinants of governance strength complements a recent study examining firm determinants of board structure by Coles, Naveen, and Naveen (2008), which provides evidence that challenges the notion that smaller and more independent boards necessarily enhance firm value.

[8] In a later section, I discuss the costs and benefits of these governance mechanisms and the inconclusive evidence on their relations with firm performance. I also discuss how these issues give rise to a variation in the strength of these mechanisms across firms, and hence different optimal governance structures.

[9]To date, there has been little evidence provided on cross-sectional determinants of governance strength.

[10] Supporting this conjecture, Core, Holthausen, and Larcker (1999) find no association between governance and future stock returns. More recently, Core, Guay, and Rusticus (2006) find that weak governance does not cause poor stock returns, and Bowen, Rajgopal, and Venkatachalam (2006) find that accounting discretion due to poor governance actually lead to better future firm performance.

[11] Only a handful of studies examine how CEO attributes are associated with governance (e.g., Boone, Field, Karpoff, and Raheja, 2007). However, these studies mainly examine the effect of CEO entrenchment, and not reputation, on individual aspects of governance. They adopt a narrow notion of governance (e.g., board strength), and typically use no more than two board measures (e.g., board size and independence). As discussed above, firms could make tradeoffs among several governance mechanisms, and CEO attributes could play a role in influencing these tradeoffs. Furthermore, individual aspects of governance are likely interrelated and failure to account for these connections can lead to spurious inferences (Bhagat and Jefferis, 2002).

[12] Kenneth Lay and Andrew Fastow of Enron, and Bernie Ebbers and Scott Sullivan of Worldcom were generally regarded as competent. However, when their integrity came into scrutiny, this led to their downfall and to their company's collapse.

[13] Shleifer and Vishny (1997) argue that incentive contracts may not completely solve the agency problems in firms.

[14] It is conceivable that the greater discretion the CEOs and other managers/officers receive may encourage them to engage in actions against shareholders' interests (Baiman, Larcker, and Rajan, 1995; Prendergast, 2002). However, the assumption in our theoretical reasoning is that firms weigh monitoring costs against the cost of opportunistic actions, and provide greater discretion when monitoring costs are perceived to exceed costs of harmful actions by the CEOs.

[15] Holmstrom (1999) shows that while reputation concerns may lead to reduction in agency costs (as in Fama, 1980), they may also lead to agency problems.

[16] Boone et al. (2007) fail to find evidence that boards are structured to facilitate managers' extraction of private benefits that are harmful to shareholders.

[17] CEO incentive compensation generally ameliorates the agency problems between the firm and the CEO; additional governance mechanisms can reduce the agency problems between the firm and the board (Shelifer and Vishny, 1997).

[18] Merging databases leads to three separate samples and a considerable loss in observations based on data availability as follows: CEO press citations data (from Milbourn (2003)) and data on other CEO characteristics obtained from Execucomp, comprising 5,493 CEO-year/firm-year observations, ranges from 1993 to 1998; board data, comprising 14,491 firm-year observations, ranges from 1996 to 2004; and shareholder rights data, comprising 13,998 observations, for the years 1990, 1993, 1995, 1998, 2000, 2002, 2004, and 2006. When I merge the data on CEO characteristics with data from CRSP and COMPUSTAT, my sample reduces to 3,906 firm-year observations. Further merging with the governance databases in IRRC considerably reduces the observations to the amounts given below.

[19] Sixty five corporate founders (comprising 3.89% of the original sample) are removed from the sample to focus on the most direct principal-agent relationship. Furthermore, founders may be provided with considerably more stock-based pay (controlled by the founding family members) than non-founders, which enables founding CEOs to retain their positions longer than non-founding CEOs (Morck, Shleifer, and Vishny, 1989; Parrino, 1997).

[20] For my dependent variables, I do not include several other measures of governance documented in the literature, e.g., institutional ownership, blockholdings, interlocking relationships between the CEO and directors, CEO and director stock and options ownership, etc., because these do not reflect direct monitoring inside firms nor do they reflect governance structures directly controllable by the firms. For example, institutional ownership and blockholdings reflect choices by investors to purchase shares in companies. Interlocking relationships and director stock and options ownership reflect the CEOs' and directors efforts, respectively. In a later section, I control for these factors as they may influence firms' monitoring intensity and hence firms' governance choice.

[21] The 24 provisions include blank check preferred stock, classified board, limits to call special meetings, limits for written consent, advance notice requirements, compensation plans, indemnification contracts, golden parachutes, severance, director indemnification, director liability, limits to amend bylaws, limits to amend charter, cumulative voting, secret ballot, super majority to approve merger, unequal voting, cumulative voting for substantial shareholder, antigreenmail, director's duties-nonfinancial impact, fair price, pension parachutes, poison pills, and silver parachutes.

[22] This study's findings are similar when TOTINDEX also includes the following governance provisions: existence of audit committee, existence of compensation committee, existence of nomination committee, existence of corporate governance committee, the independence of the directors who serve on these committees, and 6 state antitakeover provisions. The State Law provisions include recapture of profits (antigreenmail laws), business combination law, cash out law, director's duties law, fair price law, and control share acquisition law.

[23] I am grateful to Todd Milbourn for graciously sharing his data on CEO press citations.

[24] CEO competence (e.g., decision-making ability, firm performance, etc.) is the most frequently discussed dimension of CEO reputation in the media (Park and Berger, 2004).

[25] This rolling five-year window is updated each time the CEO appears in the sample.

[26] Farrell and Whidbee (2002) provide evidence that negative media coverage of firm performance puts pressure on boards of directors to fire their CEOs.

[27] The Dow Jones News Retrieval Service was searched for all articles (up to a maximum of 20) containing the CEO's name in the year prior to the data year. Each article was read and classified as (a) strictly favorable, (b) neutral to favorable, or (c) strictly negative with respect to the CEO.

[28] It is conceivable that CEOs who have high visibility in the media also have high reputation on average.

[29] When we replace SALE with log assets or log market value of equity as alternative proxies of firm size, the results are not affected.

[30] The adjusted R^2 for my regressions are higher than those documented in these studies.

[31] They find an insignificant CEO tenure-board independence relation in some regression specifications.

[32] I don't include them as independent variables in my primary regression analysis above as they reduce the number of sample observations considerably.

[33] This study's overall findings are unchanged when long-term CEO incentive compensation mix (computed as the sum of the value of restricted stock grants, the Black-Scholes value of stock option grants, long-term incentive payouts, and other long-term compensation provided to the CEO divided by total CEO compensation) is included instead of a short-term CEO incentive compensation mix.

[34] To obtain these additional variables, I merge the existing dataset with a dataset comprising institutional stock holdings data and another dataset comprising data on directors' stock holdings.

[35] The results are also unaffected when I account for the existence of audit, compensation, and nominating committees (Klein, 1998) in my regressions.

[36] My coefficients for the relations already documented in the literature are generally consistent with prior research (e.g., Linck et al., 2007).

[37] However, the direction of the coefficient on the long-term CEO incentive compensation mix variable is opposite to that of the short-term CEO incentive compensation mix variable, suggesting that a higher proportion of long-term CEO incentive compensation is associated with stronger governance in firms.

[38] Three-year industry-adjusted performance is used by Rajgopal et al., (2006) to proxy for CEO talent and by Milbourn (2003) to proxy for CEO reputation. Malmendier and Tate (2009) use CEO-of-the-year awards to proxy for CEO celebrity. When I use the dataset used by Malmendier and Tate (2009), I obtain similar findings. I thank Ulrike Malmendier for providing me with their dataset to conduct robustness checks.

[39] It is conceivable that CEOs who receive CEO-of-the-year awards based on rankings by their peer CEOs will have much higher reputation than other CEOs.

[40] Furthermore, consistent with the notion that DJHITS may be a broader CEO reputation proxy, I also find that DJHITS is positively associated (correlation of 0.03) with the CEO being an outsider at the time of appointment to the helm of the firm. Prior research has documented that outsider CEOs (Parrino, 1997) may be associated with higher reputation.

[41] Although it would be desirable to see if changes in CEOs (resulting in more or less reputable CEOs taking the helm) cause changes in governance strength, I don't have the necessary power to do this with my short sample period, especially if I require each CEO to have data for at least two years. Additionally, governance measures are likely to be sticky over time.

[42] The results are qualitatively similar when I include firm fixed effects, although the magnitudes of the coefficients for DJHITS are generally larger with higher standard errors. Higher standard errors are expected for DJHITS as it does not vary much over time for a given firm and including firm fixed effects likely absorbs all variation in DJHITS across firms. Including firm random effects in the regressions enables us to account for variation in DJHITS both across and within firms as firm random effects only absorb a fraction of the variation across firms (Greene, 2000, p.69; Wooldridge, 2002, p.287).

[43] An example of a CEO attribute that could confound the analysis in this study is the tendency for CEOs to self-report to the press, thus "managing" their reputations (Hamilton and Zeckhauser, 2004).

[44] When I include CEO fixed effects instead of CEO random effects in the regressions, I obtain qualitatively similar results, although the magnitudes of the coefficients for DJHITS in the former set of regressions are generally larger with higher standard errors.

[45] The robust regression also computes robust standard errors.

[46] Median regressions minimize the sum of absolute deviations rather than the sum of squared deviations (as in OLS) and are therefore less sensitive to outliers than are the OLS regressions (Koenker and Bassett, 1982). They also correct for non-normality of residuals.

[47] The other governance variables may influence the strength placed on a particular governance variable. As indicated above, failure to account for correlations between the governance variables can lead to spurious inferences (Bhagat and Jefferis, 2002). It is likely that the different governance mechanisms in this study simultaneously arise in firms. As I am mainly concerned with examining how CEO reputation affects governance strength, I don't model the different governance mechanisms as a system of simultaneous equations. Furthermore, specification and estimation of such a system of equations are nontrivial.

[48] See http://www.djinteractive.com/

[49] Table 2 provides a summary of articles that were read and classified according to their "tone" for a subsample of CEOs.

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Table 1 – Descriptive statistics for governance and its hypothesized determinants

Panel A provides statistics for a sample based on governance measures constructed from data on board characteristics reflecting board strength, comprising 1,887 observations for the years 1996 to 1998. Panel B provides statistics for a sample where a governance index reflecting shareholder rights (used in Gompers et al., 2003) is constructed from corporate by-laws and charter provisions data, comprising 1,534 observations for the years 1993, 1995, and 1998. Panel C provides statistics for a sample where an aggregate governance index, reflecting total governance strength, comprising ranked percentiles of board characteristics, corporate by-laws and charter provisions, and comprising 712 observations for the year 1998. Data on board characteristics, corporate by-laws and charter provisions, and state anti-takeover provisions are obtained from the Director and Governance databases in the Investor Responsibility Research Center; firm and compensation data are obtained from the Annual Industrial and Execucomp databases in Compustat, and CRSP; and data on CEO characteristics are obtained from Execucomp (where executives are defined as "CEO" and also if the executive is the CEO based on the start and end dates) and the Dow Jones News Retrieval Service. All dollar items (before transformation) are CPI-adjusted to year-2,000 dollars.

Variable	Mean	Median	25th percentile	75th percentile	Standard deviation	Number of observations
Panel A: Board of Directors Sample						
Board size	10.40	10.00	8.00	12.00	3.17	1,887
Separate chair dummy	0.26	0.00	0.00	1.00	0.44	1,887
% Independence of board	63.09	66.67	53.33	76.92	17.18	1,887
Non-Attendance dummy	0.22	0.00	0.00	0.00	0.41	1,236
Board index	64.66	65.92	55.67	74.69	13.48	1,887
Lagged log CEO article mentions	3.99	4.26	3.43	4.98	1.62	1,887
Log sales	7.67	7.62	6.70	8.63	1.47	1,886
Stock return volatility	0.10	0.09	0.07	0.12	0.08	1,885
Log (1 + market-to-book ratio)	1.03	0.93	0.79	1.17	0.34	1,885
Log (1 + R&D intensity)	0.04	0.00	0.00	0.03	0.14	1,887
Log CEO tenure	1.71	1.79	1.10	2.30	0.82	1,887
Lagged log CEO stock and options holdings	-30.22	8.73	-13.41	16.27	106.64	1,885
CEO age	56.30	56.00	52	61	6.58	1,887
Panel B: Corporate By-laws and Charter Provisions Sample						
Provisions index (Gompers et al., 2003)	9.57	10.00	8.00	12.00	2.81	1,534
Lagged log CEO article mentions	3.91	4.26	3.37	4.98	1.71	1,534
Log sales	7.76	7.73	6.78	8.78	1.48	1,534
Stock return volatility	0.10	0.09	0.06	0.12	0.09	1,534
Log (1 + market-to-book ratio)	1.00	0.90	0.77	1.13	0.33	1,533
Log (1 + R&D intensity)	0.04	0.00	0.00	0.03	0.17	1,534
Log CEO tenure	1.71	1.79	1.10	2.30	0.82	1,534
Lagged log CEO stock and options holdings	-26.49	9.27	-7.06	16.24	103.23	1,532
CEO age	56.39	57.00	52	61	6.57	1,534
Panel C: Combined Board/Corporate By-laws & Charter Provisions Sample						
Board size	10.04	10.00	8.00	12.00	3.10	712
Separate chair dummy	0.28	0.00	0.00	1.00	0.45	712
% Independence of board	63.36	66.67	53.59	77.78	16.94	712
Non-Attendance dummy	0.22	0.00	0.00	0.00	0.42	712
Board index	66.90	68.82	58.38	76.47	13.35	712
Provisions index (Gompers et al., 2003)	9.30	9.00	7.00	11.00	2.81	712
Total governance index	82.37	82.91	77.17	88.28	7.54	712
Lagged log CEO article mentions	4.00	4.26	3.45	4.97	1.57	712
Log sales	7.56	7.54	6.57	8.57	1.45	712
Stock return volatility	0.13	0.11	0.09	0.15	0.11	712
Log (1 + market-to-book ratio)	1.04	0.90	0.78	1.19	0.38	712
Log (1 + R&D intensity)	0.04	0.00	0.00	0.03	0.13	712
Log CEO tenure	1.73	1.79	1.10	2.30	0.80	712
Lagged log CEO stock and options holdings	-20.65	10.26	-1.70	17.01	97.09	711
CEO age	56.07	56.00	52	61	6.61	712

Table 2 – Summary statistics of business article quality

This table contains a summary of the quality of lagged CEO press coverage for a randomly selected sample of 50 CEOs in each data year between 1993 and 1998. For each CEO, up to 20 articles containing the CEO's name in the year prior to the data year were read entirely and quality was classified as either (a) strictly favorable, (b) neutral to favorable, or (c) strictly negative. Below, the percentages of articles read that were strictly favorable and strictly nonnegative are provided.

					Year			
		1993-1998	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**
% Strictly	Mean	20.5%	13.8%	7.6%	24.5%	33.6%	28.1%	15.3%
Favorable	Median	15%	9.1%	10%	19.1%	31.7%	25%	14.6%
% Nonnegative	Mean	90%	87.7%	86.6%	87.6%	92%	91.1%	92.4%
	Median	100%	95%	97.5%	97.5%	100%	100%	100%

Table 3 – Correlation matrix

Panel A provides Pearson correlations among variables in a sample based on governance measures constructed from board of directors' data, comprising 1,887 observations for the years 1996 to 1998. Panel B provides correlations among variables in a sample where a governance index (as in Gompers et al., 2003) is constructed from corporate by-laws and charter provisions data, comprising 1,534 observations for the years 1993, 1995, and 1998. Panel C provides correlations among variables in a sample where an aggregate governance index, comprising data on board characteristics, corporate by-laws and charter provisions, and comprising 712 observations for the year 1998. For definitions of variables, see Appendix B.

Panel A: Board of Directors Sample

	BSIZE	SEPCHAIR	INDEP	NOT_ATTEND	BINDEX	DJHITS	SALE	VOLAT	MTB	RD	TENURE	STOCKOWN	CEOAGE
BSIZE	1.00***	-0.10***	0.12***	0.19***	-0.60***	0.17***	0.49***	-0.27***	-0.16***	-0.16***	-0.05**	-0.19***	0.16***
SEPCHAIR		1.00***	-0.15***	-0.01	0.28***	-0.12***	-0.26***	0.10***	0.04**	0.09***	-0.24***	0.07***	-0.22***
INDEP			1.00***	0.07***	0.40***	0.05***	0.15***	-0.09***	-0.07***	-0.01	-0.16***	-0.14***	0.01
NOT_ATTEND				1.00***	-0.68***	0.08***	0.09***	-0.04	-0.04*	-0.03	-0.02	-0.05*	-0.01
BINDEX					1.00***	-0.13***	-0.34***	0.18***	0.07***	0.14***	-0.10***	0.09***	-0.16***
DJHITS						1.00***	0.21***	-0.00	0.02	0.00	-0.01	-0.01	0.06***
SALE							1.00***	-0.24***	-0.08***	-0.34***	-0.03	-0.14***	0.20***
VOLAT								1.00***	0.07***	0.19***	0.04**	0.12***	-0.17***
MTB									1.00***	0.30***	0.02	0.08***	-0.10***
RD										1.00***	-0.01	0.07***	-0.08***
TENURE											1.00***	0.11***	0.30***
STOCKOWN												1.00***	-0.09***
CEOAGE													1.00***

Panel B: Corporate By-laws and Charter Provisions Sample

	CINDEX	DJHITS	SALE	VOLAT	MTB	RD	TENURE	STOCKOWN	CEOAGE
CINDEX	1.00***	0.06***	0.17***	-0.16***	-0.13***	-0.12***	-0.07***	-0.12***	0.10***
DJHITS		1.00***	0.20***	0.00	0.00	-0.02	-0.02	-0.00	0.06***
SALE			1.00***	-0.26***	-0.08***	-0.37***	-0.01	-0.12***	0.21***
VOLAT				1.00***	0.08***	0.16***	0.03	0.11***	-0.17***
MTB					1.00***	0.20***	0.05**	0.08***	-0.09***
RD						1.00***	-0.03	0.03	-0.07***
TENURE							1.00***	0.05**	0.31***
STOCKOWN								1.00***	-0.07***
CEOAGE									1.00***

Panel C: Combined Board/Corporate By-laws and Charter Provisions Sample

	BSIZE	SEPCHAIR	INDEP	NOT_ATTEND	BINDEX	CINDEX	TOTINDEX	DJHITS	SALE	VOLAT	MTB	RD	TENURE	STOCKOWN	CEOAGE
BSIZE	1.00***	-0.10***	0.12***	0.19***	-0.60***	0.30***	-0.46***	0.18***	0.52***	-0.21***	-0.10***	-0.18***	-0.05	-0.17***	0.18***
SEPCHAIR		1.00***	-0.18***	-0.03	0.23***	-0.15***	0.22***	-0.09**	-0.25***	0.11***	0.03	0.09***	-0.22***	0.11***	-0.23***
INDEP			1.00***	0.07**	0.32***	0.25***	-0.18***	0.04	0.13***	-0.08**	-0.08**	0.01	-0.14***	-0.14***	0.02
NOT_ATTEND				1.00***	-0.70***	0.12***	-0.26***	0.07**	0.11***	-0.06	-0.05	-0.05	-0.01	-0.07**	-0.02
BINDEX					1.00***	-0.17***	0.40***	-0.14***	-0.36***	0.14***	0.05	0.17***	-0.07**	0.11***	-0.15***
CINDEX						1.00***	-0.84***	0.13***	0.22***	-0.14***	-0.12***	-0.12***	-0.10***	-0.18***	0.11***
TOTINDEX							1.00***	-0.21***	-0.39***	0.18***	0.13***	0.15***	0.07*	0.22***	-0.19***
DJHITS								1.00***	0.22***	-0.01	0.03	0.01	-0.02	-0.00	0.06*
SALE									1.00***	-0.20***	-0.03	-0.35***	-0.04	-0.15***	0.21***
VOLAT										1.00***	0.01	0.13***	0.02	0.10***	-0.18***
MTB											1.00***	0.33***	0.04	0.08**	-0.09***
RD												1.00***	0.02	0.09***	-0.11***
TENURE													1.00***	0.07*	0.32***
STOCKOWN														1.00***	-0.11***
CEOAGE															1.00**

***, **, and * indicate significance at the

1%, 5%, & 10% levels respectively.

Table 4 – Regression of governance on CEO reputation

This table presents OLS and logistic regressions on several governance proxies. Columns I to V provide results for regressions on board characteristics reflecting board strength. Column I provides results for an OLS regression on board size (BSIZE). Column II provides results for a logistic regression on whether the CEO is not the chairman of the board (SEPCHAIR). Column III provides results for an OLS regression on the percentage of independent directors on the board (INDEP). Column IV provides results for a logistic regression on the likelihood that the directors do not attend board meetings (NOT_ATTEND). Column V provides results for an OLS regression on a board index (BINDEX) reflecting aggregate board strength. Column VI provides OLS regressions on an aggregate index of 24 corporate by-laws and charter provisions (CINDEX) used by Gompers et al. (2003), reflecting shareholder rights. Column VII provides results for an OLS regression on a total aggregate index (TOTINDEX), reflecting overall governance strength. The sample for columns I to V comprises data for 1,887 firm-years from years 1996 to 1998; the sample for column VI comprises data for 1,534 firm-years for years 1993, 1995, and 1998; and the sample for column VII comprises data for 712 firm-years for the year 1998. Data on board characteristics, corporate by-laws and charter provisions are obtained from the Director and Governance databases in the Investor Responsibility Research Center; firm and compensation data are obtained from the Annual Industrial and Execucomp databases in Compustat, and CRSP; and data on CEO characteristics are obtained from Execucomp (where executives are defined as "CEO" and also if the executive is the CEO based on the start and end dates) and the Dow Jones News Retrieval Service. Year indicators are included in the regressions for columns I to VI but are not reported for brevity. Dollar amounts of variables (before transformation) are CPI-adjusted to year-2000 dollar amounts. Two-tailed tests of p-values are conducted. We run the following regression (for definitions of variables, see Appendix B):

GOVERNANCE PROXY = β_0 + β_1DJHITS + β_2SALE + β_3VOLAT + β_4MTB + β_5RD + β_6TENURE +β_7STOCKOWN + β_8CEOAGE + YEAR INDICATOR + ε

		OLS	LOGISTIC	OLS	LOGISTIC	OLS	OLS	OLS
	Predicted sign	**I BSIZE**	**II SEPCHAIR**	**III INDEP**	**IV NOT_ATTEND**	**V BINDEX**	**VI CINDEX**	**VII TOTINDEX**
Intercept	?	5.501***	5.634***	59.945***	-1.281*	90.869***	8.605***	97.503***
DJHITS	+/-	0.177***	-0.115***	0.297	0.111***	-0.596***	0.072**	-0.678***
SALE	+/-	0.848***	-0.396***	1.355***	0.107**	-2.565***	0.123**	-1.506***
VOLAT	+/-	-15.453***	0.950	-32.258***	-2.318	34.061***	-6.844***	17.099***
MTB	+/-	-1.126***	0.134	-3.309***	-0.352*	1.975**	-0.703***	2.154***
RD	+/-	2.223***	-0.366	9.913***	0.122	-1.415	-0.708*	-2.337
TENURE	+/-	-0.061	-0.723***	-2.964***	-0.006	-1.870	-0.279***	0.665**
STOCKOWN	+/-	-0.003***	0.001***	-0.014***	-0.001	0.004*	-0.002***	0.010***
CEOAGE	+/-	0.007	-0.041***	0.015	-0.015	-0.070*	0.028***	-0.112***
No. of Observations		1,880	1,880	1,880	1,232	1,880	1,530	710
Adjusted/Pseudo R^2		32.3%	13.6%	6.5%	1.8%	18.3%	7.2%	22.6%

***, **, and * represent significance levels at the 1%, 5%, and 10% levels respectively.

Table 5 – Regression of governance on CEO reputation including several additional control variables

This table presents OLS and logistic regressions on several governance proxies including several additional control variables. Columns I to V provide results for regressions on board characteristics reflecting board strength. Column I provides results for an OLS regression on board size (BSIZE). Column II provides results for a logistic regression on whether the CEO is not the chairman of the board (SEPCHAIR). Column III provides results for an OLS regression on the percentage of independent directors on the board (INDEP). Column IV provides results for a logistic regression on the likelihood that the directors do not attend board meetings (NOT_ATTEND). Column V provides results for an OLS regression on a board index (BINDEX) reflecting aggregate board strength. Column VI provides OLS regressions on an aggregate index of 24 corporate by-laws and charter provisions (CINDEX) used by Gompers et al. (2003), reflecting shareholder rights. Column VII provides results for an OLS regression on a total aggregate index (TOTINDEX), reflecting overall governance strength. The sample for columns I to V comprises data for 1,578 firm-years from years 1996 to 1998; the sample for column VI comprises data for 611 firm-years for years 1993, 1995, and 1998; and the sample for column VII comprises data for 609 firm-years for the year 1998. Data on board characteristics, corporate by-laws and charter provisions, and state anti-takeover provisions are obtained from the Director and Governance databases in the Investor Responsibility Research Center; firm and compensation data are obtained from the Annual Industrial and Execucomp databases in Compustat, and CRSP; and data on CEO characteristics are obtained from Execucomp (where executives are defined as "CEO" and also if the executive is the CEO based on the start and end dates) and the Dow Jones News Retrieval Service. All dollar items (before transformation) are CPI-adjusted to year-2,000 dollars. Year indicators are included in the regressions for columns I to VI but are not reported for brevity. Two-tailed tests of p-values are conducted. We run the following regression (for definitions of variables, see Appendix B):

GOVERNANCE PROXY = $\beta_0 + \beta_1$DJHITS + β_2SALE + β_3VOLAT + β_4MTB + β_5RD + β_6TENURE +β_7STOCKOWN + β_8CEOAGE + β_9ROE + β_{10}RET + β_{11}DIRSTOCK + β_{12}INSTHOLD + β_{13}LEVERAGE + β_{14}INCENTMIX + YEAR INDICATOR + ε

		OLS	**LOGISTIC**	**OLS**	**LOGISTIC**	**OLS**	**OLS**	**OLS**
	Predicted sign	**I BSIZE**	**II SEPCHAIR**	**III INDEP**	**IV NOT_ATTEND**	**V BINDEX**	**VI CINDEX**	**VII TOTINDEX**
Intercept	?	5.660***	4.888***	70.207***	-0.437	92.122***	7.490***	95.243***
DJHITS	+/-	0.124***	-0.094**	0.315	0.071	-0.402**	0.208***	-0.693***
SALE	+/-	0.767***	-0.226***	-0.429	0.093	-2.977***	0.142	-1.298***
VOLAT	+/-	-10.367***	1.272	-16.668*	-1.164	25.796***	-5.286**	18.003***
MTB	+/-	-0.015	0.079	-0.014	-0.415	0.933	-0.069	0.280
RD	+/-	1.676***	0.446	2.633	0.242	-2.214	-0.376	-0.595
TENURE	+/-	-0.094	-0.889***	-1.588***	0.095	-1.661***	-0.259**	0.385
STOCKOWN	+/-	-0.001**	0.001**	-0.008**	-0.001	0.004	-0.003***	0.010***
CEOAGE	+/-	-0.007	-0.035***	-0.004	-0.037**	-0.019	0.019	-0.054
ROE	+/-	0.237	0.048	3.322**	0.067	0.042	0.032	-0.017
RET	+/-	0.012	-0.088	-5.199***	0.372	-2.513***	-0.803***	1.754**
DIRSTOCK	+/-	-0.075	0.338***	-4.902***	-0.099	-1.446***	-0.341***	0.591***
INSTHOLD	+/-	-1.017***	-0.211**	1.058*	-0.076	2.724***	-0.042	0.358
LEVERAGE	+/-	3.527***	-0.849**	4.567*	1.268**	-8.639***	0.471	-2.249
INCENTMIX	+/-	1.168**	-0.300	1.089	0.691	-4.588**	1.580**	-4.148**
No. of Observations		1,139	1,140	1,138	597	1,139	595	594
Adjusted/Pseudo R^2		39.4%	17.2 %	20.3%	4.3 %	25.3%	12.9%	23.3%

***, **, and * represent significance levels at the 1%, 5%, and 10% levels respectively.

Table 6 – Tests of U-shaped or inverted U-shaped relations between governance and CEO reputation, and other CEO and firm attributes

This table presents OLS and logistic regressions including an additional squared term for lagged CEO press coverage, and for other CEO and firm variables. Only untransformed variables are used in the regressions although similar labels are given for the variables as in the appendix. Columns I to V provide results for regressions on board characteristics reflecting board strength. Column I provides results for an OLS regression on board size (BSIZE). Column II provides results for a logistic regression on whether the CEO is not the chairman of the board (SEPCHAIR). Column III provides results for an OLS regression on the percentage of independent directors on the board (INDEP). Column IV provides results for a logistic regression on the likelihood that the directors do not attend board meetings (NOT_ATTEND). Column V provides results for an OLS regression on a board index (BINDEX) reflecting aggregate board strength. Column VI provides OLS regressions on an aggregate index of 24 corporate by-laws and charter provisions (CINDEX) used by Gompers et al. (2003), reflecting shareholder rights. Column VII provides results for an OLS regression on a total aggregate index (TOTINDEX), reflecting overall governance strength. The sample for columns I to V comprises data for 1,887 firm-years from years 1996 to 1998; the sample for column VI comprises data for 1,534 firm-years for years 1993, 1995, and 1998; and the sample for column VII comprises data for 712 firm-years for the year 1998. Data on board characteristics, corporate by-laws and charter provisions are obtained from the Director and Governance databases in the Investor Responsibility Research Center; firm and compensation data are obtained from the Annual Industrial and Execucomp databases in Compustat, and CRSP; and data on CEO characteristics are obtained from Execucomp (where executives are defined as "CEO" and also if the executive is the CEO based on the start and end dates) and the Dow Jones News Retrieval Service. Year indicators are included in the regressions for columns I to VI but are not reported for brevity. Dollar amounts of variables (before transformation) are CPI-adjusted to year-2000 dollar amounts. Two-tailed tests of p-values are conducted. We run the following regression:
GOVERNANCE PROXY = β_0 + β_1 lagged CEO press mentions + β_2 (lagged CEO press mentions)^2 + β_3 sales + β_4 sales^2 + β_5VOLAT + β_6VOLAT^2 + β_7 market-to-book ratio + β_8 (market-to-book ratio)^2 + β_9 research and development intensity + β_{10} (research and development intensity)^2 +β_{11}CEO tenure + β_{12} (CEO tenure)^2 + β_{13} lagged stock and options holdings + β_{14} (lagged stock and options holdings)^2 + β_{15}CEOAGE + β_{16}CEOAGE^2 + YEAR INDICATOR + ε

		OLS	LOGISTIC	OLS	LOGISTIC	OLS	OLS	OLS
	Predicted sign	**I BSIZE**	**II SEPCHAIR**	**III INDEP**	**IV NOT_ATTEND**	**V BINDEX**	**VI CINDEX**	**VII TOTINDEX**
Intercept	?	10.098***	-1.438***	62.019***	-1.337***	67.810***	9.416***	82.406***
lagged CEO press mentions	+/-	0.003***	-6.5e-4**	-0.001	0.001**	-0.009***	0.002***	-0.011***
(lagged CEO press mentions)^2	-/+	-4.552e-7***	2.841e-7**	3.443e-7	-8.97e-7**	2e-6***	-1.41e-6***	6.2e-6***
sales	+/-	1.072e-4***	-6e-5***	2.205e-4***	1.6e-5*	-2.847e-4***	-1.185e-5	-1.531e-4***
sales^2	-/+	-5.887e-10***	3.31e-10***	-1.335e-9***	-189e-12*	1.612e-9***	-1.131e-10*	1.097e-9***
VOLAT	+/-	-26.083***	1.978	-50.009***	-3.037**	59.368***	-11.907***	30.719***
VOLAT^2	-/+	92.711***	2.973	204.326**	0.293	-171.822***	33.347**	-101.654*
market-to-book ratio	+/-	-0.426***	0.087	-0.275	-0.199**	1.359***	-0.184**	0.677**
(market-to-book ratio)^2	-/+	0.054***	-0.009	-0.024	0.023**	-0.200***	0.014	-0.060*
research and development intensity	+/-	-0.724*	0.260	7.598***	0.529	7.575***	-0.796	2.744
(research and development intensity)^2	-/+	0.139*	-0.009	-1.685***	-0.199	-1.414***	0.008	-0.749
CEO tenure	+/-	-0.017	-0.119***	-0.441***	-0.003	-0.235***	-0.045***	0.160***
(CEO tenure)^2	-/+	0.002**	0.003***	0.010*	2.89e-4	0.001	0.002**	-0.006*
lagged stock and options holdings	+/-	-1.17e-6**	-1.72e-7	-2.023e-5***	-1.42e-7	-7.75e-6***	-2.11e-6***	2.5e-6
(lagged stock and options holdings)^2	-/+	4.852e-13***	-304e-15	4.853e-12**	1.19e-13	2.437e-12*	5.397e-13**	-4.057e-13
CEOAGE	+/-	0.013	-0.045***	0.097*	-0.014	-0.078*	0.033***	-0.145***
CEOAGE^2	-/+	-0.001	0.001	-0.032***	-0.002	-0.004	-0.003***	0.007**
No. of Observations		1,880	1,880	1,880	1,232	1,880	1,530	710
Adjusted/Pseudo R^2		29.5%	11.1%	10.3%	2.1%	17.1%	9.6%	18.0%

***, **, and * represent significance levels at the 1%, 5%, and 10% levels respectively.

Table 7 – Correlation matrix including additional CEO reputation proxies

Panel A provides Pearson correlations among governance measures, other firm-level variables, lagged three-year industry-adjusted firm stock performance (PERF), and CEO awards (AWARD) comprising 1,887 observations for the years 1996 to 1998. Panel B provides correlations between lagged CEO press coverage, lagged three-year industry-adjusted firm stock performance (PERF), and CEO awards (AWARD). For definitions of variables, see Appendix B.

Panel A: Correlations among board characteristics, firm-level variables, and three-year industry-adjusted firm stock performance

	BSIZE	SEPCHAIR	INDEP	NOT_ATTEND	BINDEX	TENURE	PERF	AWARD	SALE	VOLAT	MTB	RD	STOCKOWN	CEOAGE
BSIZE	1.00***	-0.10***	0.12***	0.19***	-0.60***	-0.05***	0.11***	0.08***	0.49***	-0.27***	-0.16***	-0.16***	-0.28***	0.16***
SEPCHAIR		1.00***	-0.15***	-0.01	0.28***	-0.24***	-0.04*	0.04*	-0.26***	0.10***	0.04**	0.09***	0.07***	-0.22***
INDEP			1.00***	0.07***	0.40***	-0.16***	-0.00	-0.05**	0.15***	-0.09***	-0.07***	-0.01	-0.14***	0.01
NOT_ATTEND				1.00***	-0.68***	-0.02	0.02	-0.02	0.09***	-0.04	-0.04*	-0.03	-0.05*	-0.01
BINDEX					1.00***	-0.10***	-0.15***	-0.06***	-0.34***	0.18***	0.07***	0.14***	0.09***	-0.16***
TENURE						1.00***	-0.01	0.07***	-0.03	0.04**	0.02	-0.01	0.11***	0.30***
PERF							1.00***	0.06**	0.19***	-0.15***	0.40***	-0.03	-0.04	-0.01
AWARD								1.00***	0.19***	-0.02	0.08***	0.00	0.03*	0.06***
SALE									1.00***	-0.24***	-0.08***	-0.34***	-0.14***	0.20***
VOLAT										1.00***	0.07***	0.19***	0.12***	-0.17***
MTB											1.00***	0.30***	0.08***	-0.10***
RD												1.00***	0.07***	-0.08***
STOCKOWN													1.00***	-0.09***
CEOAGE														1.00***

Panel B: Correlations between CEO press coverage and three-year industry-adjusted firm stock performance

	Lagged CEO press coverage	PERF	AWARD
Lagged CEO press coverage	1.00***	0.08***	0.03*
PERF		1.00***	0.06**
AWARD			1.00**

***, **, and * indicate significance at the

1%, 5%, & 10% levels respectively.

Table 8 – Regression of governance on CEO reputation including additional CEO reputation proxies

This table presents OLS and logistic regressions including an additional squared terms for lagged CEO press coverage and PERF, and for other CEO and firm variables. Only untransformed variables are used in the regressions. Columns I to V provide results for regressions on board characteristics reflecting board strength. Column I provides results for an OLS regression on board size (BSIZE). Column II provides results for a logistic regression on whether the CEO is not the chairman of the board (SEPCHAIR). Column III provides results for an OLS regression on the percentage of independent directors on the board (INDEP). Column IV provides results for a logistic regression on the likelihood that the directors do not attend board meetings (NOT_ATTEND). Column V provides results for an OLS regression on a board index (BINDEX) reflecting aggregate board strength. Column VI provides OLS regressions on an aggregate index of 24 corporate by-laws and charter provisions (CINDEX) used by Gompers et al. (2003), reflecting shareholder rights. Column VII provides results for an OLS regression on a total aggregate index (TOTINDEX), reflecting overall governance strength. The sample for columns I to V comprises data for 1,887 firm-years from years 1996 to 1998; the sample for column VI comprises data for 1,534 firm-years for years 1993, 1995, and 1998; and the sample for column VII comprises data for 712 firm-years for the year 1998. Data on board characteristics, corporate by-laws and charter provisions are obtained from the Director and Governance databases in the Investor Responsibility Research Center; firm and compensation data are obtained from the Annual Industrial and Execucomp databases in Compustat, and CRSP; and data on CEO characteristics are obtained from Execucomp (where executives are defined as "CEO" and also if the executive is the CEO based on the start and end dates) the Dow Jones News Retrieval Service, and the *Chief Executive* magazine. Year indicators are included in the regressions for columns I to VI but are not reported for brevity. Dollar amounts of variables (before transformation) are CPI-adjusted to year-2000 dollar amounts. Two-tailed tests of p-values are conducted. We run the following regression:

GOVERNANCE PROXY = β_0 + β_1 lagged CEO press mentions + β_2 (lagged CEO press mentions)^2 + β_3PERF + β_4PERF^2 + β_5AWARD + β_6 sales + β_7 sales^2 + β_8VOLAT + β_9VOLAT^2 + β_{10} market-to-book ratio + β_{11} (market-to-book ratio)^2 + β_{12} research and development intensity + β_{13} (research and development intensity)^2 + β_{14} CEO tenure + β_{15} (CEO tenure)^2 + β_{16} lagged stock and options holdings + β_{17} (lagged stock and options holdings)^2 + β_{18}CEOAGE + β_{19}CEOAGE^2 + YEAR INDICATOR + ε

		OLS	LOGISTIC	OLS	LOGISTIC	OLS	OLS	OLS
	Predicted	**I**	**II**	**III**	**IV**	**V**	**VI**	**VII**
	sign	**BSIZE**	**SEPCHAIR**	**INDEP**	**NOT_ATTEND**	**BINDEX**	**CINDEX**	**TOTINDEX**
Intercept	?	10.089***	-1.599***	62.057***	-1.212***	67.501***	9.537***	81.889***
lagged CEO press mentions	+/-	0.003***	-1.1e-3**	-3.52e-4	0.001**	-0.008***	0.003***	-0.015***
(lagged CEO press mentions)^2	-/+	-4.630e-7***	3.42e-7**	-1.90e-7	-8.78e-7*	1.76e-6***	-2.73e-6***	1.238e-5***
PERF	+/-	1.015***	-0.076	2.028	0.244	-1.898*	0.313	0.193
PERF^2	-/+	-0.619*	0.116	-2.556	-1.228*	2.630*	-1.298**	4.354**
AWARD	-/+	-0.170	3.297***	-2.410	-0.345	2.531	-1.040*	1.656
sales	+/-	1.070e-4***	-8e-5***	2.419e-4***	1.4e-5	-2.724e-4***	-1.927e-5*	-1.404e-4***
sales^2	-/+	-5.825e-10***	4.02e-10***	-1.446e-9***	-184e-12*	1.514e-9***	-5.243e-11	9.765e-10***
VOLAT	+/-	-25.093***	0.768	-45.158***	-2.552	56.407***	-11.688***	30.064***
VOLAT^2	-/+	92.786***	13.498	309.906***	-5.648	-91.423	30.352*	-94.526
market-to-book ratio	+/-	-0.667***	0.096	-0.398	-0.312***	1.846***	-0.273***	0.587*
(market-to-book ratio)^2	-/+	0.090***	-0.020	-0.048	0.033***	-0.273***	0.024*	-0.065*
research and development intensity	+/-	-0.352	0.156	7.596**	1.494	7.287***	-0.434	3.334
(research and development intensity)^2	-/+	0.088	-0.002	-1.595***	-1.118	-1.354***	-0.040	-0.899
CEO tenure	+/-	-0.008	-0.108***	-0.651***	-0.016	-0.276***	-0.042**	0.172**
(CEO tenure)^2	-/+	0.001	0.003***	0.021***	0.001	0.004	0.002*	-0.007*
lagged stock and options holdings	+/-	-1.24e-6*	-8.74e-7	-2.018e-5***	1.29e-6	-9.19e-6***	-1.39e-6*	7.984e-7
(lagged stock and options holdings)^2	-/+	4.824e-13*	-866e-16	4.725e-12**	-83e-14	2.884e-12**	3.507e-13	-1.958e-13
CEOAGE	+/-	0.018*	-0.047***	0.117*	-0.012	-0.080*	0.040***	-0.150***
CEOAGE^2	-/+	-0.001*	0.001	-0.037***	-0.002*	-0.006	-0.003***	0.006*
No. of Observations		1,482	1,485	1,483	972	1,483	1,190	563
Adjusted/Pseudo R^2		30.9%	9.4%	12.0%	3.4%	18.0%	11.1%	20.1%

***, **, and * represent significance levels at the 1%, 5%, and 10% levels respectively.