The Impact of CEO Quality on the Number of Outside Directorships, CEO Cash Compensation and Firm Performance

Chinmoy Ghosh [1] & Dinesh K Padmanabhan [2]

EFM Classification Code: 150
Research area in which to participate as discussant: 150

Attending Authors: Chinmoy Ghosh, Dinesh K Padmanabhan
Presenting Author: Dinesh K Padmanabhan

Abstract

The link between CEO quality and outside directorships is first investigated. Using various proxies for CEO quality (measured ex-ante), We find that greater the quality of the CEO, more the number of outside directorships taken. We also find agency related issues in a sub sample of the data. We then investigate the effect of CEO quality (measured ex-ante) and outside directorships on cash compensation awarded to CEOs. While CEO quality explains cross-sectional variation in cash compensation, empirical result demonstrates that a non monotonic function characterizes the relationship between number of outside directorships held and the cash compensation received. Also, consistent with efficient market hypothesis, We find positive correlation between ex-ante measures of CEO quality and firm performance.

1. Professor, Univ. of Connecticut, Department of Finance, Unit 1041, Storrs, CT 06269 USA.Email:Chinmoy@sba.uconn.edu. Tel: +1 8604864431. Fax: +1 8604860634
2. PhD Candidate, Univ. of Connecticut, Department of Finance, Unit 1041, Storrs, CT 06269 USA .Email:DPadmanabhan@business.uconn.edu. Tel: +18604866424. Fax: +18604860634

The Impact of CEO Quality on the Number of Outside Directorships, CEO Cash Compensation and Firm Performance

1. Introduction

The purpose of this paper is to examine the relationship between the level of CEO quality and the number of outside directorships the CEO holds, CEO cash compensation, and future firm performance. Firms needing outsiders on its company's boards often turn to CEOs of other firms to bring fresh perspectives and independent experienced advice. Hence from the point of view of outside directors, CEO quality comprises of his reputation of running his own parent company and his reputation of being a director on other boards. Booth and Deli (1996) investigate the factors that affect the number of outside directorships that CEOs hold. They find that CEOs of established firms (firms with considerable assets in place) hold greater number of outside directorships than firms with considerable growth opportunities and that CEOs hold more outside directorships as they transfer their power and control to their successors. They also document that CEOs hold more outside directorships when interlocking directors are present between two firms. These Interlocking directors – a diverse and experienced group of individuals who have a variety of skills and connections to bring to the table and have the strategic purpose of tying corporations together for economic advantage for the owners - cement the relationship between the two firms. However, the authors don't find any evidence that such outside directorships pose agency related issues like unchecked perquisite consumption on the part of the CEOs. We explore if CEO quality affects outside directorship and find evidence consistent with the fact that reputation is significantly and positively correlated to number of outside directorships held.

Increased research attention is being focused on the influence of outside directors in maximizing shareholder value. Firms wanting to recruit outside directors seek highly reputed CEOs in the strategic decision making body of their firms since CEOs bring considerable amount of knowledge and experience in managing businesses. However, corporate investors and shareholders have often felt that CEO directors holding multiple board appointments fail to properly oversee the working of their company and the boards

they sit on. The cost involves allocating substantial amount of investment in terms of time and effort. It has been repeatedly suggested that multiple outside directorships are a hindrance to the CEO since their time and effort are distributed thinly between running his company and monitoring other firms and hence shareholders will prefer that the CEO spends his valuable resources (knowledge, time and effort) in directing his company rather than sitting on other firm's board. The popular belief on the street suggests that self-serving CEOs accept outside directorships as a form of perquisite consumption in corporate America (Byrne, Symonds and Siller (1991)). Hence, highly reputed CEO will not necessarily take on more outside directorships and supply of such CEOs will be limited by the amount of time and effort that can be committed by such individuals.

The advantages of serving on various boards for the CEO include an opportunity for the CEO to exchange information, share ideas, brainstorm new plans with peers, observe other leadership practices and directly witness effects of certain actions in other firms. We investigate if outside directorships are driven by CEO's personal goals or if they are a function of firm characteristics, board composition and the quality of the CEOs. To address this issue, We run tests for the entire sample of S&P 500 and Midcap firms (870 firms) both separately and as one sample. For the whole sample, We find that the variables that proxy for the CEO's personal cost of taking non-value-maximizing decisions (agency costs) are unrelated to the number of outside directorships. When We break the sample into S&P 500 companies and S&P Midcap companies, agency costs are borne out at the 10% level (certain variables at the 5% level) for the Midcap stocks.

Using various proxies for CEO quality, We find that greater the quality of the CEO, more the number of outside directorships taken by the CEO. We define CEO quality as reputation derived from running his company (called CEO reputation) and his reputation derived from sitting on other boards (director reputation). The various measures of CEO reputation include CEO tenure, the industry adjusted performance of the CEO's firm and finally the amount of press coverage received as measured by the citations in Lexis/Nexis over the last three and five years. Director reputation is measured as the industry adjusted performance of the companies on whose boards the CEO sits. We

find that CEO quality is positively related to the number of directorships held and that it also explains changes in directorships for the entire sample at the 5% level.

Milbourn (2002) develops a theory of stock-based compensation contracts for the chief executive officers (CEOs) and tests this theory with CEO compensation data. He posits that CEO's reputation evolves over a period of time and is observed by shareholders and an optimal compensation contract is finally set. Using various proxies for CEO reputation, he shows a positive and economically meaningful relationship between performance based pay sensitivity and CEO reputation. However, the proxies used by Milbourn (2002) do not capture the CEO's reputation as a director. We explore CEO quality and compensation and find that as quality increases, CEO's pay also increases after controlling for board of director characteristics, ownership structure and standard economic determinants of the level of CEO compensation. The reputation measures have substantial cross-sectional association with the cash compensation of CEO's (Incremental adjusted R^2 is 7.6% for S&P 500 companies and 6.9% for S&P Midcap companies). Our results suggest that CEOs are compensated by the firm because they signal their managerial quality by sitting on other boards that perform better than their industry peers. However, the relationship between cash compensation and number of directorships held is non-monotonic. As the number of directorships held by the CEO increases, cash compensation first increases and then decreases. The effect of decreases in cash compensation due to increase in number outside directorships outweighs the effect of increase in cash compensation due to increase in CEO quality.

We then investigate CEO reputation on future firm performance. Francis, Huang, Rajgopal and Zang (2005) propose two competing theories on CEO reputation. Efficient contracting hypothesis suggests that reputed CEOs are associated with good earnings quality, while the rent extraction hypothesis argues that reputed CEOs are associated with poor earnings quality. We examine the impact of ex-ante measure of CEO quality on future performance of the firm and find that our results are consistent with efficient contracting hypothesis. We find that CEO quality is positively related to firm performance and is statistically and economically significant in explaining the variation

in return on assets. Our results suggest that when the CEO sits on boards of companies that perform better than their industry peers, ROA goes up by about 0.34% the first year and by 0.29% the next year (statistically significant at the 5% level).

The remainder of this paper is organized into five sections. In section 2, we review the prior literature on board and ownership structures, CEO compensation, firm performance and CEO reputation. We describe our hypothesis in section 3. In section 4, we describe methodology and data. Section 5 analyzes a) the association between CEO reputation and the number of outside board directorships held b) how CEO reputation affects cash compensation and c) CEO reputation and its effect on firm performance for a period of four years. A summary and conclusion is provided in the last section (section 6).

2. Literature review

Finance literature has focused considerably on CEO reputation and its effects on firm performance. Fama and Jensen (1983) proposed that there is a reputational effect in the market for directors and that this reputation manifests itself as the impact of firm performance on outside directorships. Brickley et al (1999) establishes positive significant correlation between firm performance and additional directorships for retired CEOs. Ferris et al (2003), consistent with Fama and Jensen (1983), find that firm performance and operating margins have a positive effect on the number of appointments held by a director. Many studies have focused on specific events to find the impact of that event on outside directorships. Examples include Kaplan and Reishaus (1990) and Gilson (1990). While Kaplan and Reishus (1990) find that the probability of a CEO taking on an outside directorship is positively related to their firm's performance, Gilson (1990) finds that in firms where directors resign following bankruptcy filings, such directors hold fewer seats on other boards following their departure.

Smith and Watts (1992) and Booth and Deli (1996) studied outside directorships held by CEOs. Booth and Deli (1996) were the first to investigate the determinants of

outside directorships and establish that executives on firms with growth opportunities primarily would like to hold fewer outside directorships as they focus their entire resources on running their company. Outside board memberships are thought of as special perks by corporate America. Minow's Corporate Library documents that many directors sits on at least a dozen corporate boards, and according to a 1993 survey by The Conference Board each single directorship takes upto four 40-hour weeks – and this time and energy commitment will go up in the wake of corporate governance failures in firms like Enron- and hence such outside directorships are looked down upon by many in the market place. However, Booth and Deli (1996) and Ferris et al (2003) find no evidence that such outside directorships represent unchecked perquisite consumption on the part of CEO's. Smith and Watts (1992) suggest the same result of Booth and Deli (1996) that CEOs of growth companies hold fewer outside directorships. Our results are also in agreement with Smith and Watts (1992) and Booth and Deli (1996). Similar to Kaplan and Reishus (1990) we also find that firm performance is positively related to number of outside directorships held.

CEO compensation and board structure has generated significant interest in the academic community. Examples include Deckopp (1988); Finkelstein and Hambrick (1989); Lambert (1993); Boyd (1994); Yermack, 1996; Angbazo and Narayanan, 1997; Hallock, 1997; Core, Holthausen, and Larcker, 1999; Cyert, Kang and Kumar, 2002; Milbourn (2002); Weisbach and Hermalin (2003); Vafeas, 2003; Bertrand and Mullainathan, 2004; and Grinstein and Hribar, 2004. Allen (1981) finds that CEO compensation is negatively related to CEO's equity holdings. Using various proxies for CEO reputation, he shows a positive and economically meaningful relationship between stock-based pay-sensitivities and CEO reputation. While Lambert et al (1993) and Boyd (1994) document positive relation between CEO compensation and the percentage of the board composed of outside directors, Deckop (1988) finds compensation to have a marginal relationship with CEO tenure. Milbourn (2002) was one of the pioneering papers that developed a theoretical frame for pay for performance sensitivity. His model predicts that apriori, optimal compensation contract which includes stock based compensation is more sensitive for highly reputed CEOs than other CEOs. Finkelstein

and Hambrick (1989) find that compensation is unrelated to the percentage of outside directors on the board. Outside directors and interlocked directors have been analyzed in great detail. Also, Weisbach and Hermalin (2003) report that board composition and size are correlated with the boards decisions regarding CEO executive compensation. Thus the evidence for the number or percentage of outside directors on compensation is mixed.

Several studies have shown that board structure explains cross sectional variations in CEO compensation. The separation of ownership and control in American corporations and the agency issue in particular has taken considerable focus over the past few years. Ownership structure and the level of CEO compensation were explored in Core et al (1999) and they concluded that board and ownership structures explain significant amount of cross sectional variation in CEO compensation. Core (1997) finds that CEO compensation is inversely related to insider ownership. Holderness and Sheehan (1998) provide evidence that managers who own more majority of the stocks only receive marginally higher salaries. Bebchuk and Fried (2005) document the lack of correlation between performance and Pay. The authors offer various solutions to the problem including placing the same amount of importance to every form of compensation that one receives, disclosing all non-deductible compensation, expensing options, reporting the relationship between pay and performance and reducing windfalls in equity based compensation and bonus plans among others. Though there is evidence supporting that that CEOs respond predictably to certain compensation arrangements, it has been more difficult to document that the increase in stock-based incentives has led CEOs to work in the interest of shareholders. Also, while there have been substantial increases in stock option grants, whether such stock option based performance measure have born empirical support to the fact that such schemes in the market have helped the shareholders is unanswered.

CEO pay and future firm performance has generated widespread research interest across both financial and management areas. The level of CEO pay and the sensitivity of CEO wealth to stock-price performance have increased substantially since the pay controversy “peaked” in the early 1990s. Yermack (1996) finds no association between

percentage of outside directors and firm performance. Core et al (1996) however suggests that board and ownership structure more consistently predict future accounting operating performance. In contrast to these studies, Consistent with Weisbach and Hermalin's study, Yermack (1996) and Bhagat and Black (1997) also find no meaningful relationship among certain characteristics of the board and subsequent firm performance. Francis et al (2005) propose two theories on CEO reputation. Efficient contracting perspective predicts that reputed CEOs are less likely to take actions that result in poor quality while rent extraction hypothesis posits that reputed CEOs exhibit poor firm performance as they emphasize their career goals and put the goals of the shareholders behind them. They find some support to establish that rent extraction theory holds in the market and that firms with poor performance employ such talented and reputed CEOs to manage their company.

3. Hypothesis

It is in the shareholders interest that board holds and exercises the top-level control rights in the organization, including the rights to initiate and implement decisions such as the right to hire, evaluate, compensate, and fire the top management team. In the light of this, a CEO director is evaluated based on his abilities to understand the nuances of running the company and also making important strategic decisions. We now turn to address CEO and director reputation.

CEO Reputation

CEO reputation can affect the number of outside directorships held as a good CEO would bring expertise to the table that the current CEO can make use of. Milbourn [2002] is the first paper that explicitly considers CEO reputation, measured as the number of press articles citing the CEO. He shows that compensation contracts given to reputed CEOs (i.e., those with more media-counts) exhibit greater pay-for-performance sensitivity. Huang et al however find that less reputed CEOs are associated with better earnings. Given the two competing theories of CEO reputation, the evidence has been

mixed as to which theory has prevailed. If efficient contracting hypothesis prevails then reputed CEO will take on more outside directorships. Using various proxies for CEO reputation, we test which of the two theories prevail.

Director Reputation

What is critical to companies that are hiring outside directorships is the performance of the boards on which the CEO sits. If the CEO is on boards that have been significantly outperforming the industry, then the CEO is bringing in valuable information to the company either because he has outperformed peers or has acquired enough knowledge to steer the company in the right direction by virtue of sitting on boards that have performed very well in the past.

The average performance of the boards he sits in after adjusting for the industry performance should give us a good indicator of the ability of the director in carrying out his duties. It is after all the fiduciary duty of the board of directors that they try to maximize the shareholder wealth by overseeing that CEO does carry out his responsibilities.

This leads to our first hypothesis.

Hypothesis 1a: Consistent with the efficient contracting theory, more reputed CEOs are associated with better earnings. This better performance results in more outside directorships.

Hypothesis 1b: There also exists a strong positive correlation between director reputation and number of outside directorships held.

We then investigate the relationship between CEO quality and cash compensation. If reputation matters, then reputation will appropriately affect cash compensation received by CEOs. Our hypothesis posits that reputation variable along with known economic determinants, board structure variables and ownership structure

characterizes the compensation structure of the CEO. While Core (1996) notes "Given the amount of information available to the board on corporate strategy, CEO characteristics, and levels of CEO compensation, structuring an optimal CEO pay package should be an easy decision for the board". We include a set of reputation measures in the compensation regression along with the hypothesized economic determinants of compensation. If the CEO quality variables are statistically significant, then we accept the hypothesis that CEO quality matters.

Hypothesis 2: Observed CEO quality induces optimal CEO contracting. Increase in CEO quality is positively associated with increase in cash compensation.

Finally, we explore the link between CEO quality and firm performance. We examine the association between CEO quality and the quality of the firm's earnings (proxied by ROA). Consistent with efficient contracting hypothesis that the individual reputation for the CEO is very important, and our supposition that that the reputation of the CEO is inextricably tied to the reputation of the firm , reputed CEOs take actions consistent with adding value to their firms. Hence the focus of the next hypothesis is in judging the value and impact of this reputation dimension in explaining the cross sectional variations in the company's earnings. The third hypothesis is thus

Hypothesis 3: Consistent with efficient contracting hypothesis, CEO quality positively affects firm performance.

4. Methodology

We discuss the methodology to calculate the reputation variables in section 4.1 and 4.2. The next section (section 4.3) discusses other variables that we use in our Tobit and OLS regressions. The number of directorships CEOs hold is censored at zero, that is, each director holds either zero or more directorships. To deal with the left censoring of the data, we use Tobit analysis to study the effects of the determinants of outside directorships. Our regressions are run on lagged reputation variables. Our reputation variables are calculated over various periods prior to the 1999 year being studied. We similarly study the effect of such reputation variables on cash compensation and future

performance. We compute our reputation variable over the period 1996 to 1998 using IRRC and Lexis/Nexis database. We use this as an ex-ante measure of CEO reputation. We then regress number of directorships taken over the reputation variables, and other factors we have described above. We also regress cash compensation in the year 1999 obtained from COMPUSTAT on this ex-ante measures of CEO reputation (computed over a period of 1996-1998) controlling for other factors. Finally we regress subsequent firm performance (performance over the period 2000 to 2003) on this ex-ante measure of reputation.

4.1 Measuring CEO reputation

Following Milbourn [2002], we collect several empirical proxies of CEO reputation. A CEO's reputation is only as good as what people observe and perceive it to be. For lack of an exact measure of CEOs reputation various proxies have been identified in the academic literature. The proxies that the market observe include (i) CEO tenure, (ii) the number of business related articles containing the CEO's name as returned by a search of the Lexis/Nexis Database and (iii) industry-adjusted firm performance during the CEO's tenure. We discuss each of these: CEO tenure, the number of business-related articles returned by Lexis/Nexis in which the CEO's name appeared, and industry-adjusted stockholder returns while the CEO was running the firm, estimated separately over three-year and five-year time intervals individually. Below, we define and discuss the two proxies for CEO reputation that are not explicitly tied to a firm's stock performance. We then turn to the third measure, industry-adjusted stockholder returns, which is explicitly based on firm (stockholder) performance.

CEO Tenure: The first proxy for reputation is CEO tenure; defined as the number of years the executive has been CEO at this firm as of the compensation year. CEO changes are important decisions capturing the attention of the market. With corporate governance failures, increased competition and volatile markets, firms cannot afford to choose their leaders lightly. Although CEOs reputations can rise and fall dramatically, the perception of the CEOs abilities will affect the number of outside directorships he holds. Given that

CEOs have little margin for error and the shareholders increased demand for removal of poorly performing CEOs in recent times, a longer tenured CEO is more reputed than a shorter tenured CEO. The logical interpretation for using tenure as a reputational measure is that the longer the CEO's tenure, the greater is the markets and the board of directors' assessments of his ability to deliver.

Number of articles in the press: The second measure of CEO reputation is the total number of articles returned by the Lexis/Nexis database in which the executive's name appears at least once over a time period of three years prior to the IRRC data year (1999). We compute the number of articles over 1 year and five years too but don't report for the sake of brevity. Only selected business publications were searched and these include newswires, business periodicals, and major newspapers. The idea is that a CEO who appears in selected business publications more often than others has a higher reputation. Milbourn (2002) establishes that more reputed CEOs also find their names in the business press more often than those of less reputed ones. Given that a CEO finds his name more often in the press and is still retained as a CEO, suggests that CEOs with greater citations in the press are more wanted by companies to serve on their boards. We therefore predict that CEOs with large number of hits in the press hold more outside directorships.

Performance based measurement: The last proxy for CEO reputation that we employ is explicitly performance-based, and is the industry-adjusted stock price performance while the CEO has been running the firm. Over a variety of time intervals, we calculate a relative performance measure within the industry in which the firm operates based on its four-digit SIC code. We adjust for the industry so that a CEO is not penalized for the firm's underperformance if the whole industry does badly. Hence, under this industry-adjusted measure, the reputation of the CEO of firm j, which operates in industry we, is proxied by

$$\text{Ind-adj Perf}_{tji} = (Rj - R_I)/\sigma_I$$

Where Ind-adj Perf $_{tji}$ stands for Industry adjusted performance for firm j operating in industry We calculated over t years, Rj is the average monthly return on the firm's equity over the performance period, R_I is the average monthly return on an equally-weighted portfolio for firm j's four-digit SIC industry over the performance period, σ_I is the standard deviation of the average monthly industry returns over the period, and T = { 3, 5} is the number of years over which the industry-adjusted performance is measured.

4.2 Measuring Director Reputation

A good CEO with very valuable insights may make a difference to the boards he sits in. One of the measures of a CEO being a good director is to observe the performance of the companies he sits in. Hence, we define director reputation as the average performance over all the boards he sits in. We use equally weighted since it is very difficult for a large company to beat the industry average. Director reputation is measured over a period of three and five years.

4.3 Factors that affect number of directorships, cash compensation and Firm performance.

Consistent with our hypothesis, we include CEO reputation and director reputation in our regressions. We also include the following control variables.

4.3.1 Board Structure variables

CEO Duality: If the same person occupies the role of chairman of the board and chief executive officer, there is little transparency into the CEO's acts, and as such his action can go unmonitored. Agency theory predict that CEOs who are also their own firms' chairmen hold more outside directorships than CEOs who are not chairmen. Hence we predict positive relationship between CEO duality (also called chair in the regressions) and number of outside directorships.

Interlock: Interconnections among corporations created by individuals who sit on two or more corporate boards are called interlocks. Despite numerous studies on interlocks and their influence, the issue of whether interlocks actually affect the firms involved remains the subject of much debate as research has produced mixed and contradictory results. This variable is coded "interlock" in our regressions and such interlocks increase the possibilities of gaining outside directorships. We expect a positive relationship between interlock and number of outside directorships taken by the CEOs.

Number of Unaffiliated CEOs on CEOs board: Consistent with Booth and Deli (1996), we proxy the demand for a CEO as the number of outside CEOs on the CEOs own board. On the one hand greater is the demand the more the number of directorships held, however, such directorship brings more responsibility. Failure to carry out the fiduciary responsibility of a director would open them up to serious litigation. Hence, it becomes an empirical issue to check how the demand for CEO's affects outside directorships taken. "Unafil CEO" represents for this variable in our regressions.

Outsiders on the CEOs board: Agency theory again predicts that CEOs that are monitored tend to better perform their duties. Since Unafil CEOs outsiders already proxy for the demand for the CEOs, We investigate non CEO outsiders. What may be critical is the percentage of outsiders since just a sheer number may not reflect the actual power vested in the hands of the outsiders in effectively questioning the activities of the CEO. Based on this assumption we expect that the percentage of non CEO outsiders on the CEO's own board would better monitor the activities of the CEO and hence shall have a negative relationship to the number of outside directorships taken by a CEO. This variable has been coded "Out" in our regression analysis.

Board Size: Jensen (1993) argues that oversized boards are ineffective. According to him, large boards result in less effective coordination, communication and decision-making, and are more likely to be controlled by the CEO. Empirical findings by Yermack (1996), based on U.S.companies, support Jensen's hypothesis. This is coded "Num Dir"

in our regression and we expect a positive correlation between board size and outside directorships held.

4.3.2 Ownership Variables

Perquisite Consumption: Agency theory predicts that monitoring reduces the non-value-maximizing behavior of the agent. Similarly interests of the CEO and the principal are aligned as the percentage of shares in the company held by the CEO and the board increases. “Common” proxies for the percentage of shares held by the CEO and we therefore expect negative correlation between “common” and outside directorships held. Similarly “Block” proxies for the presence of a large shareholder in the company and “bodcom” proxy for the percentage of shares held by the board and we expect an inverse relationship between these variables and outside directorships.

4.3.3 Economic Determinants and Firm specific variables (Control variables)

Rosen (1982) and Smith and Watts (1992) demonstrate that larger firms with greater growth opportunities and more complex operations demand higher equilibrium wages. We proxy for firm size with sales. We include industry dummies to control for industry differences. Firm performance affects CEO compensation and hence we proxy for firm performance using return on assets and stock market return. Consistent with empirical work by Core (1999) and Smith and Watts (1992), firm risk is an important determinant of CEO compensation and we include 5 year annual standard deviation of ROA and ROE as proxies for the same in our regression. While Cyert et al (1997) find that CEO compensation is higher for firms with greater stock return volatility, Banker and Datar (1989) suggest that firm risk could increase or decrease the level of compensation. The last question that we try to answer is how CEO reputation affects firm performance. We use ROA for test of firm performance since Core (1999) has demonstrated that accounting based measures are better predicted than future stock based performance. We use sales and profits to control for the economic determinants of firm

value. The larger the firm, the greater are the economies of scale and bargaining power with its vendors. Hence, we expect a positive sign between sales and firm performance.

Growth Opportunities: All else equal, activities drawing CEOs' attentions away from their duties within their firms are more costly for firms in which CEOs are investment decision-makers (i.e., firms made up largely of growth opportunities) rather than managers of existing assets. Shareholders of firms with more growth opportunities would rather want their CEO's to focus their time and resources on their company rather than taking outside directorships. Hence firms with growth opportunities typically should have a negative relationship with the number of outside directorships held. We proxy for growth opportunity using market to book ratio.

Firm Size: A large company has more interactions with other companies than a smaller company has. If this is indeed true then the size of the firm will proxy for the contracting environment of the firm. Firms with greater number of relationships with other firms opens itself up for gains from these external contracting relationships as there is scope for well bonded relationships. This variable has been coded as "Num Dir" in the regressions and we expect a positive relation to the number of outside directorships taken.

Regulation: Regulated companies involve utilities and financial services including insurance companies (SIC codes 4900 to 4942 and 6000 to 6411). We have a dummy variable which takes on a value 1 if the firm in question operates in a highly regulated industry.

5. Analysis and Results

Table 1 provides descriptive statistics for the sample. Firm value is given in millions of dollars. The mean value was $8.7 billion; the median is $3 billion. This suggests that the size is highly right skewed. The high mean value is due to the fact that our data is for the year 1998, the peak of the stock market boom. At the twenty fifth percentile the market value is about $1.003 billion dollars. For empirical tests, we use log

of firm size. Common refers to the percentage of common stock owned by the CEO. The average is about 9.9% while the median is about 3.9%. This is because a good portion of our sample is midcap stocks which are still run by the initial entrepreneurs who have substantial stake in the company. The average stake that the entire board including the CEO has is 10.4% with median holding at 5.1%. At the seventy fifth percentile the average holding is 14%, while at the twenty fifth percentile the average common stock holding is 2.7%. The average size of the CEO own board is a little over 13 while the median is 12. The minimum board size is five with the maximum at 15. The number of unaffiliated CEOs on any board is 1.77 with the median at 1, at the seventy fifth percentile there are 2 unaffiliated CEO while it drops to zero at the twenty fifth percentile. The average percentage of outsiders on any board is 59.9% with the maximum at 89.8% and the median at 29.9%. The average CEO tenure is about 9 years. This is because of the time period under study (1999) when most of the stocks were at its all time high. The median tenure is 7 years and the tenure drops to 3 at the twenty-fifth percentile.

CEO reputation as measured by the excess average monthly return over the industry divided by the standard deviation of the industry over a three year period is slightly positive at 0.38 with the median at 0.28. For a five year period, the mean is 0.55 while the median is 0.22. CEO reputation as measured by the number of media hits is 679 for a three year period while the median is 513. The maximum is 2001, while the minimum is 42 hits. For a five year period the mean and the median is 1198 and 989 respectively while the maximum and the minimum 3246 and 88. Both the measures are right skewed implying that highly reputed CEO have been getting better press coverage than the less reputed CEOs. Director reputation which is measured as the average performance of the companies on whose boards the CEO sits is 1.01 (mean) and the median is 0.98.

Table 2, Panel A provides univariate results of the number of outside directorships held as a function of various factors. Though the univariate tests are preliminary, the median number of outside directorships falls as we move from the smallest quartile to the largest quartile of market to book implying a negative relationship between market to book and number of directorships taken. The kruskal Wallis tests for the equality of central locations

across sub samples is highly significant (p value is 0.00). The spearman rank correlation indicates a negative correlation between market to book and outside directorships (significant at 1% level). The CEO reputation variables (CEO tenure, Industry adjusted performance, the media hits) all increase in the median number of directorships held as we move from the smallest quartile (1.0) to the largest quartile (2.0). The kruskal Wallis test and the spearman rank correlation tests are all significant (p value 0.00).

Director reputation is also significant and positively related the number of outside directorships held (median number of directorships increase as we move from smallest (1.0) to largest quartile (2.0)). We need to observe common and Bodcom variable to test the agency theory issues. The percentage of outsiders (Out) is insignificant across sub samples (p value is 0.257) and the number of common stocks held is significant only at the 10% level (p value is 0.065). The common stocks held by the board (Bodcom) is however significant at the 1% level and is negatively related to the number of outside directorships held. Hence further test need to be carried out to determine if agency theory issues are significant.

Panel B shows univariate tests for S&P 500 companies only. The results are similar. The Market to book value is negatively related to number of directorships held with spearman correlation and Kruskal Wallis test being highly significant (p value 0.00). The CEO reputation is highly significant and positively related to the number of outside directorships held (median number of outside directorships taken increases from the smallest quartile (1.0) to largest quartile (2.0), significant based on the p value of 0.00). The director reputation is also positively related and significant (p values are 0.00). While the percentage of common shares owned is proxied for by the variable “Common” is significant (p value 0.028) and negatively related, the number of common shares owned by the board is slightly positive but insignificant (p value of 0.163). Hence agency issues are not definitely borne out in the univariate tests.

Panel A and B confirm that the number of outside directorships held increases from 1 to 3 for S&P midcap companies while the number of outside directorships increases from 1 to 2 for large companies. Also the median number of outside directorships for the agency

variable “Common” decreases from 2.22 to 1.91 for S&P 500 companies while “Common” decreases from 2.37 to 1.95 – a steeper fall- motivating our study to run tests for S&P 500 and Midcap companies separately.

Panel C of table 2 discusses the univariate tests for S&P Midcap companies. The results are striking for the Midcap companies. The median number of directorships falls from three to one as we move from the smallest to the largest quartile. The Kruskal Wallis test is highly significant (p value 0.000) and the spearman coefficient is negatively related to the market to book value. The CEO reputation measures (tenure, industry adjusted performance, Media hits) are all significant at the 1% level and director reputation is also significant (p value = 0.001). The median and the mean directorships increase as we move from the smallest quartile to the largest quartile. The agency issues are borne out for the midcap companies strongly. The spearman’s correlation suggests that the median number of outside directorships is negatively related to both common and bodcom. All of the variables except the number of unaffiliated CEOs are significant.

Panel A, B and C confirm that the number of outside directorships held increases from 1 to 3 for S&P midcap companies while the number of outside directorships increases from 1 to 2 for large companies. Also the median number of outside directorships for the agency variable “Common” decreases from 2.22 to 1.91 for S&P 500 companies while “Common” decreases from 2.37 to 1.95 – a steeper fall- motivating our study to run tests for S&P 500 and Midcap companies separately.

Panel D, E and F are univariate tests for dichotomous variables taking on values of either zero or one. Panel D is for the entire sample of 870 companies. For unregulated companies (Reg =0), the mean number of directorships is 1.91 while the mean increases to 2.15 for regulated companies. This may be because the regulated industries are predominantly banks and financial services companies and CEO’s of these companies are in high demand because they can provide firms with valuable information about trends in interest rate, inflation and other major input factor prices. The block variable proxying for the presence of a major blockholder is insignificant with a p value of 0.19. The chair

variable proxying for whether the CEO is a chair is also insignificant. The interlock variable is significant at the 5% level and both the mean and the median number of directorships taken increases when employees of two different firms sit on each others board.

Panel E and F show results when the data is split and analyzed separately for S&P 500 and Midcap companies. Panel E shows that the results for the S&P 500 companies are similar to those of the entire sample. Regulation and Interlock variables are significant at the 5% level while the block and chair variables are insignificant. Panel F shows univariate results for S&P midcap companies. Here all of the dichotomous variables are significant at the 5% level. CEOs of regulated companies tend to take on more directorships implying the demand for them and are significant at the 5% level, the presence of block holders decreases the mean number of directorships taken. If the CEO happens to be the chair of the board, then there are initial indications that directorships are being taken as perks since the p value is significant at the 5% level. The interlock again seems to be important since both the mean and the median number of directorships increases significantly when we move from no interlocks to interlock.

While suggestive, the univariate results reported in Table 2 are potentially misleading since the factors examined are unlikely to be independent of one another. We conduct multivariate tests and discuss results next.

Cross-sectional Analysis:

Table 3A first column shows results for the entire sample. Smith and Watts (1992) predict that CEOs of firms with more growth opportunities will hold fewer outside directorships than CEOs of firms with fewer growth opportunities because, all else equal, outside directorships taken by CEOs are more costly to those firms with more growth opportunities. The growth opportunities are negative and significant (1% level) in relation to the number of outside directorships taken by CEOs. As a test of the robustness of the findings to our measure of growth opportunities, we substituted the earnings-price ratio.

The earnings to price ratio was positive and significant at the 5% level. These confirm the belief that outside directorships taken by CEOs is more costly for firms with growth opportunities than they are for firms consisting mainly of assets-in-place. The second and the third column show results for S&P 500 and the midcap companies. For both the sub samples, market to book is significant at the 1% level. The larger the firm as measured by the size, the greater is the possibility of forming well bonded contracts and hence greater the number of outside directorships. This is borne out in all the three samples at the 1% significance level. The position of the chairman of the board seems to have no statistical relation to the number of directorships taken. Finance literature suggests that large boards become unwieldy and are unable to act in a cohesive fashion. The personal cost of opportunistic behavior falls with larger board. As the price of consuming outside directorships falls, CEOs accept more outside directorships. The number of directors on one's own board affects the number of directorships taken for the S&P500 and the midcap firms at the 10% level. Interlocking of employees is significant at the 5% level for S&P 500 and the midcap companies. The demand for CEOs as directors are proxied for by the "UnafilCEO" and is significant at the 5% level for the entire sample and is significant at the 1% level for the midcap stocks. The percentage of outsiders is also significant for the S&P Midcap companies. The agency variables common, bodcom and block are insignificant for the whole sample and S&P 500 companies, however they are significant at the 5%, level for the midcap stocks. These indicate that there are significant agency issues with these companies.

The reputation variables are the only variables (other than control variables) that are significant across all the three samples. The tenure variable is significant at the 1% level for S&P 500 and the midcap companies, while industry adjusted performance are significant at the 5% level. The log of media hits is significant at the 1% level for all the three years.

Director reputation is significant at the 5% level for both the sub samples. This implies that companies that intend taking directors on board are particularly interested in the performance of the companies on whose board the CEOs sit. Good performance is

positively related to the number of boards on which they sit. Hence, good directors are offered more board seats and this fact is empirically borne out by these directors occupying such board seats. Director reputation is also calculated over three years.

Table 3B, documents OLS results of changes in directorships held from 1999 to 2002 as a function of board structure, ownership structure and lagged reputation variables (calculated from 1996 to 1998). We control for number of board seats held at the start of 1999. All of the reputational variables for the whole sample, S&P 500 and midcap companies are significant at the 10% or the 5 % level implying that changes in reputation affect the number of board sets held. While in this regression we use the levels of board and ownership structure, for robustness sake we also regress the changes in board structure on the independent variables. Since the board structure itself changes slowly, we find that reputational variables are key factors that affect number of board seats held.

We now analyze the results of the ex-ante measure of reputation variable on cash compensation. Table 4 tabulates the results for the determinants of cash compensation. The results indicate that sales, investment opportunities, stock market return and the stock market measure of risk (standard deviation of stock market return) are significant at the 1% level for S&P 500 and midcap companies. While the standard deviation of ROA is significant at the 5%, it becomes significant at the 1% level for the midcap stocks. Hence substantial part of cash compensation is explained by the economic determinants of the firm. All of the board and ownership structure components are important explanatory variables for determining CEO's cash compensation. To the extent that the CEO do not spend disproportionate amount of time in other boards, shareholders prefer that CEO's sit on other boards. This is borne out by the negative sign on the beta coefficient value of number of outside directorships.

Table 5 documents the result of firm performance as a function of firm specific factors, board structure variables, ownership structure variables and reputation. If the number of boards on which the CEO sits increases then the shareholders penalize him for his "perk" behavior (this is borne out by the negative beta coefficient on the number of

outside directorships squared term in the table) or are concerned about not spending enough time for the CEO's own firm and hence reduce his fixed component part of it. The reputation variables are all significant for both the sub samples. The interaction term between the number of outside directorships held and the reputation of the director is positive implying that the better boards on which he sits, the better he is compensated.

The first column refers to the year 1999. The next three years refer to the year 2000 to 2002. Firm performance is proxied for by ROA. Most of the explanatory power of the cross sectional variation in ROA is explained by the economic determinants of the firm. Certain board and ownership structure of the firm (percentage of insiders and percentage of shares owned by the board of directors) have explanatory power in determining firm performance. Reputation has explanatory powers for the first two years in explaining firm performance beyond which the entire variation can be explained by firm specific factors only. Hence reputation variable predicts future performance for a short period and then the explanatory power of the reputation variable falls.

6. Conclusion

We investigated factors that influence the number of outside directorships taken by CEOs. Boards of directors and CEO have drawn considerable attention in academic and general literature.

Our empirical results bear the fact that the number of outside directorships taken by CEO is driven by the nature of their firms. For firms with large growth opportunities, CEOs hold fewer outside directorships. Also, CEOs of larger firms take on more directorships since their organizations are large and they have to bond relationships with many organizations for efficient running of their firms. We also find that the interlocking firms exhibit strong bonding between themselves by exchanging employees to sit on each others board.

We find strong agency issues in the midcap companies, though these are not borne out by the larger companies. Also, the presence of a blockholder, larger CEOs stake in the company and/or larger the percentage of common stock held by the board, fewer the directorships they hold. Hence perquisite consumption is observed in smaller firms. The reputation measures are highly significant for all the samples. The more reputed the CEO, the larger number of board he/she sits in. The small companies bear this fact more strongly than the larger stocks. Most importantly, the director reputation is highly significant signaling that good CEO sit on boards that perform better than the industry.

Cash compensation of CEOs is explained to a large extent by the economic factors of the firm as well as board and ownership structure. However we see a significant improvement in adjusted R^2 when reputation variables are added. Cash compensation of CEOs increases with increase in the reputation of CEOs and in number of outside directorships taken. However, there is a non monotonic relationship between the number of outside directorships taken and the cash compensation received.

Firm performance is mainly explained by firm specific factors. Board and ownership variables have some explanatory power. Consistent with efficient contracting hypothesis, reputation variables are significant in explaining the firm performance for the subsequent few years.

Our study reveals three major findings. First, CEO quality is important in explaining the number of outside directorships taken. The better the quality, the more the number of outside directorships taken. Agency issues are also present in the smaller S&P Midcap companies. Second, quality affects CEO compensation positively. However when CEO's hold a large number of outside directorships, the cash compensation decreases due to shareholder's worry that the CEO may be spending too much time away from their own firm. Finally we find that ex-ante measure of reputation is associated with subsequent firm performance. However, the reputation effect tapers off after the first two years.

Table 1

Descriptive statistics including 870 observations using data from IRRC, Compustat, Lexis/Nexis and CRSP. Firm value is the market value of equity plus the book value of preferred stock. Mktbk is the ratio of the market value of firm equity plus the book value of preferred stock plus the book value of debt to the total value of assets. UnafilCEO is the number of unaffiliated CEOs on the CEO's own board. Out is the percentage of non CEOs on a CEO's own board. CEO Rep (Tenure) is the number of years the CEO has held the CEO position. CEO Rep (Industry adj) is the industry adjusted performance, CEO Rep (No of media hits) is the no of hits in the popular press and Dir Rep is the average performance of the boards on which the CEO sits.

	Mean	Median	Std Dev	Maximum	75th percentile	25th percentile	Minimum
Mktbk	1.68	1.2	0.91	8.08	1.99	0.56	0.09
Firm Value	8787.53	3017.01	9252.77	79218.9	8819.36	1003.1	101.55
Common	0.099	0.039	0.121	0.476	0.156	0.018	0
BODCOM	0.104	0.051	0.193	0.89	0.14	0.027	0
NumDir	13.09	12	4.01	28	15	9	5
UnafilCEO	1.77	1	1.33	9	2	0	0
Out	0.599	0.485	0.201	0.898	0.634	0.299	0
CEO Rep (Tenure)	9.1	7	2.3	58	13	3	0
CEO Rep (Industry adjusted perf) 3 yrs (5 yrs)	0.38 (0.55)	0.28 (0.22)	1.98 (1.49)	9.42 (8.99)	0.97 (1.40)	- 2.12 (-2.11)	-7.01 (-5.98)
CEO Rep (No of media hits) 3 yrs (5 yrs)	679(1198)	513 (989)	454(334)	2001(3246)	881 (1442)	211 (402)	42 (88)
Dir reputation 3 yrs (5 Yrs)	1.0 (4.44)	0.98 (1.25)	1.99 (2.1)	8.18 (7.07)	1.96 (2.01)	-2.76 (-2.64)	-9.03 (-6.38)

Table 2

Univariate tests for factors affecting number of directorships. Mktbk is the ratio of the market value of firm equity plus the book value of preferred stock plus the book value of debt to the total value of asset. Size is the natural log of the sum of the market value of equity and the book value of preferred stock. Numdir is the natural log of the size of the CEO's own board. Common is the percentage of common stock owned by the CEO. Bodcom is the percentage of common stock owned by the officers and directors of the firm. UnafilCEO is the number of un affiliated CEOs on the CEO's own board. Out is the percentage of unaffiliated nonCEO outsiders on a CEO's own board. Tenure is the number of years the CEO has held the CEO position. Chair is a dichotomous variable taking a value of 1 if the CEO is also chairman of the board, 0 otherwise. Interlock is a dichotomous variable taking on the value of 1 if the firm has a board interlock with another firm, 0 otherwise. Reg is a dichotomous variable taking a value of 1 if the firm is either a bank or a utility, 0 otherwise. Block is a dichotomous variable taking a value of 1 if an independent blockholder sits on the board of directors, 0 otherwise. Four separate sub samples are created based on the quartile values of a given variable. Mean and median numbers of outside directorships held by CEOs within each sub sample are then computed. For example, four sub samples are created based on the values of Mktbk. with sub sample 1 consisting of those observations in the smallest quartile of Mktbk and sub sample 4 consisting of those observations in the largest quartile of Mktbk. Mean and median numbers of outside directorships held by CEOs within each of the Mktbk sub samples are then computed so that they may be compared. Reputation data is for 3 years.

Panel A. Mean (Median) number of outside directorships held as a function of quartile ranking of each variable (smallest =1). Entire sample (n = 870)

	1	2	3	4	Kruskal Wallis	Spearman Corr
Mktbk	2.10(2.0)	2.07(2.0)	2.01(2.0)	1.77(1.0)	19.36(0.00)	- 0.193(0.000)
Size	1.81(1.0)	1.89(1.0)	1.99(2.0)	2.22(2.0)	22.35(0.00)	0.39 (0.00)
Numdir	1.33(1.0)	1.66(2.0)	1.65(2.0)	2.09(2.0)	18.9 (0.00)	0.251 (0.00)
UnafilCEO	1.45(1.0)	2.88(2.0)	2.11(2.0)	1.85(2.0)	5.55 (0.12)	0.06 (0.20)
Out	1.65(1.0)	1.71(2.0)	1.81(2.0)	1.89(2.0)	4.0(0.257)	0.07 (0.133)
Common	2.11(2.0)	1.95(2.0)	1.93(2.0)	1.60(2.0)	7.10(0.065)	- 0.131(0.026)
Bodcom	2.23(2.0)	2.14(2.0)	2.01(1.0)	1.77(2.0)	11.16(0.01)	-0.155 (0.01)
CEO tenure	1.65(1.0)	1.79(2.0)	1.85(2.0)	2.22(2.0)	28.98(0.00)	0.198 (0.000)
Ind adj Perf	1.43(1.0)	1.67(2.0)	1.88(2.0)	2.03(2.0)	33.11(0.00)	0.243 (0.00)
Media Hits	1.3 (1.0)	1.59(1.0)	1.87(2.0)	2.08(2.0)	23.09(0.00)	0.197 (0.00)
Dir Rep	1.45(1.0)	1.63(2.0)	1.77(2.0)	2.10(2.0)	29.07(0.00)	0.221 (0.00)

Panel B. Mean (Median) number of outside directorships held as a function of quartile ranking of each variable (smallest = 1). S&P 500 companies only (n = 486).

	1	2	3	4	Kruskal Wallis	Spearman correlation
Mktbk	1.92(2.0)	1.89(2.0)	1.70(2.0)	1.49(1.0)	23.77(0.000)	-.229(0.00)
Size	1.49(1.0)	1.66(1.0)	1.85(2.0)	2.23(2.0)	20.9 (0.000)	0.21 (0.00)
Numdir	1.59(1.0)	1.87(2.0)	2.02(2.0)	2.20(2.0)	22.21(0.000)	0.306 (0.00)
UnafilCEO	1.86(1.0)	1.77(2.0)	2.29(2.0)	2.01(2.0)	5.77 (0.16)	0.07 (0.11)
Out	1.66(1.0)	1.92(2.0)	1.84(2.0)	2.11(2.0)	3.65 (0.289)	0.009(0.014)
Common	2.22(2.0)	1.95(2.0)	2.08(2.0)	1.91(2.0)	7.97 (0.047)	-.120(0.028)
bodcom	2.30(2.0)	1.88(2.0)	2.01(2.0)	1.99(2.0)	5.89 (0.152)	0.03 (0.163)
CEO tenure	1.55(2.0)	1.70(2.00)	1.99(2.0)	2.05(2.0)	21.87(0.000)	0.159(0.001)
Ind adj Perf	1.47(1.0)	1.94 (2.0)	2.07(2.0)	2.21(2.0)	19.50(0.000)	.201 (0.000)
Media Hits	1.44(1.0)	1.62 (2.0)	1.98(2.0)	2.08(2.0)	27.83(0.000)	.297 (0.000)
Dir Rep	1.55(1.0)	1.71 (2.0)	1.89(2.0)	2.01(2.0)	23.02(0.000)	.187 (0.000)

Panel C. Mean (Median) number of outside directorships held as a function of quartile ranking of each variable (smallest = 1). S&P Midcap companies only (n = 384).

	1	2	3	4	Kruskal Wallis	Spearman corr
Mktbk	2.3 (3.0)	2.2 (3.0)	2.09(2.0)	1.8 (1.0)	20.67(0.000)	-0.14(0.001)
Size	2.22(3.0)	2.21 (2.0)	2.35(2.0)	2.60 (2.0)	22.3 (0.000)	0.18 (0.000)
Numdir	1.70(2.0)	1.93(2.0)	2.09(2.0)	2.41 (2.0)	29.01(0.000)	0.219 (0.000)
UnafilCEO	1.78(2.0)	2.12 (2.0)	2.03(2.0)	2.09 (2.0)	5.97 (0.148)	0.045 (0.135)
Out	1.66(2.0)	1.92 (2.0)	2.02(2.0)	2.17 (2.0)	27.35(0.000)	0.219 (0.000)
Common	2.37(2.0)	2.04 (2.0)	2.2 (2.0)	1.95 (2.0)	19.99(0.000)	-0.156 (0.001)
BODCOM	2.39(2.0)	2.15 (2.0)	2.20(2.0)	2.14 (2.0)	22.12(0.000)	- 0.10 (0.002)
CEO tenure	2.01(2.0)	2.18(2.00)	2.32(2.0)	2.39 (2.0)	20.19(0.000)	0.182 (0.000)
Ind adj Perf	1.88(2.0)	1.98 (2.0)	2.04(2.0)	2.15 (2.0)	18.50(0.000)	.167 (0.000)
Media Hits	1.71(2.0)	1.93 (2.0)	2.08(2.0)	2.14 (2.0)	22.01(00.00)	.203 (0.000)
Dir Rep	1.59(1.0)	1.77 (2.0)	2.03(2.0)	2.22 (2.0)	20.8 (0.00)	.139 (0.001)

Panel D. Mean (Median) number of outside directorship held as a function of dichotomous variable taking on the value of one or zero. Entire sample (n=870).

	Variable = 0	Variable =1	p value for Wilcoxon Z
Reg	1.91 (2.00)	2.15 (2.0)	0.031
Block	1.78 (2.0)	1.85 (2.0)	0.19
Chair	1.74 (2.0)	1.80 (2.0)	0.139
Interlock	1.48(1.0)	2.28 (2.0)	0.032

Panel E. Mean (Median) number of outside directorship held as a function of dichotomous variable taking on the value of one or zero. S&P 500 companies (n=486).

	Variable = 0	Variable =1	p value for Wilcoxon Z
Reg	1.99 (2.0)	2.18 (2.0)	0.0376
Block	1.67 (2.0)	1.92 (2.0)	0.109
Chair	1.75 (2.0)	1.77 (2.0)	0.122
Interlock	1.69(1.0)	2.21 (2.0)	0.035

Panel F. (Median) number of outside directorship held as a function of dichotomous variable taking on the value of one or zero. S&P Midcap companies (n=384).

	Variable = 0	Variable = 1	p value for Wilcoxon Z
Reg	1.81 (2.0)	2.11 (2.0)	0.040
Block	1.92 (2.0)	1.76 (2.0)	0.043
Chair	1.73 (2.0)	1.84 (2.0)	0.028
Interlock	1.214(1.0)	2.37 (3.0)	0.015

Table 3A

OLS estimates of the determinants of the number of Outside directorships in 1999. CEOs (t-statistics in parentheses). Mktbk is the ratio of the market value of firm equity plus the book value of preferred stock plus the book value of debt to the total value of asset. Size is the natural log of the sum of the market value of equity and the book value of preferred stock. Numdir is the natural log of the size of the CEO's own board. Common is the percentage of common stock owned by the CEO. Bodcom is the percentage of common stock owned by the officers and directors of the firm. UnafilCEO is the number of un affiliated CEOs on the CEO's own board. Out is the percentage of unaffiliated nonCEO outsiders on a CEO's own board. Tenure is the number of years the CEO has held the CEO position. Chair is a dichotomous variable taking a value of 1 if the CEO is also chairman of the board, 0 otherwise. Interlock is a dichotomous variable taking on the value of 1 if the firm has a board interlock with another firm, 0 otherwise. Block is a dichotomous variable taking a value of 1 if an independent blockholder sits on the board of directors, 0 otherwise. CEO tenure refers to the number of years the CEO has been at his position, while industry adjusted performance is for a period of three years(1996 to 1998). Media Hits is the number of hits generated for the CEO for a period of three years (1996 t0 1998). Director reputation is the three year average industry adjusted performance of the board the CEO sits in calculated over the years 1996 to 1998.

	Whole Sample	S&P 500	S&P Midcap
Intercept	-0.365	-0.296	-1.04
	(- 1.31)	(-1.40)	(-1.29)
Mktbk	-0.881	-0.813	-0.656
	(5.06)***	(2.43)**	(2.79)***
Size	0.399	1.01	1.418
	(4.81)***	(3.88)***	(2.94)***
Chair	0.221	0.159	0.613
	(- 1.01)	(1.88)*	(- 1.22)
Numdir	0.672	-0.01	1.798
	(- 1.08)	(1.68)*	(1.75)*
Interlock	0.559	0.51	0.885
	(1.99)**	(2.00)**	(1.81)*
Unafil CEO	-0.99	0.085	0.443
	(2.36)**	(1.65)*	(3.01)***
Out	-0.38	-1.01	-0.453
	(- 1.00)	(-1.45)	(2.74)***
Common	-0.92	-1.61	-0.89
	(- 1.4)	(- 1.24)	(2.32)**
bodcom	-0.335	-0.89	-0.443
	(- 1.63)	(- 1.47)	(2.50)**
block	-1.09	-0.957	-1.25
	(- 0.89)	(- 1.33)	(1.82)**
CEO Years	1.554	1.35	1.66
	(2.09)**	(2.27)***	(2.68)***
Ind adj Perf	0.674	0.554	0.88
	(1.99)**	(2.21)**	(2.48)**
Ln(Media Hits)	1.132	1.041	1.624
	(2.20)**	(2.01)**	(1.99)**
Dir rep	1.012	0.596	0.777
	(2.35)**	(2.72)***	(2.98)***
Reg	0.375	0.312	0.229
	(1.98)**	(2.04)**	(2.19)**
R^2	0.16	0.21	0.22

Table 3B

OLS Results for changes in board seats acquired by outside directors during 1999 to 2002. Interlock is a dichotomous variable taking on the value of 1 if the firm has a board interlock with another firm, 0 otherwise. Numdir is the natural log of the size of the CEO's own board. Common is the percentage of common stock owned by the CEO. Block is a dichotomous variable taking a value of 1 if an independent blockholder sits on the board of directors, 0 otherwise. The reputation variables are: a) industry adjusted performance (calculated for a period of three years 1996 t0 1998), b)log of Media Hits is the natural log number of hits generated for the CEO for a period of three years(1996 to 1998), c) Director reputation is the three year average industry adjusted performance of the board the CEO sits in (from 1996 to 1998).

	Whole Sample	S&P 500	S&P Midcap
Intercept	1.29***	0.95***	1.34***
	(2.41)	(4.40)	(3.29)
Interlock	0.45	0.52	0.90
	(1.16)	(1.83)*	(0.99)
NumDir	0.22	0.57	0.58
	(1.92)**	(1.98)**	(1.76)*
Number of Board seats held when elected	-0.28	-0.33	-0.25
	(3.56)***	(2.95)***	(3.91)***
Common	0.36	0.10	0.l2
	(- 1.58)	(1.41)	(1.53)
Block	0.50	0.30	0.885
	(1.99)**	(1.00)	(1.76)*
Ind adj Perf	0.47	0.29	0.38
	(2.01)**	(1.78)*	(1.94)*
Ln (Media hits)	0.08	0.10	0.11
	(2.06)**	(1.75)*	(2.08)**
Dir Rep	-0.38	0.31	0.20
	(1.93)*	(2.01)**	(1.74)*
R^2	0.14	0.18	0.13

Table 4

Regression of CEO cash compensation for 1999 on its economic determinants, industry controls, board and ownership variables and reputation variables. Sales in hundred thousand dollars. Economic determinants are for the year 1998, CEO duality, board size, percentage outside, Number of outside directorships held in 1998 (T Num Out Dir) and interlock and ownership variables are for 1998. Reputation data is for 1996 to 1998.

	Predicted sign	Cash Compensation (S&P 500)	Cash Compensation (Midcap)
Economic determinants			
Sales	+	9.09 (9.98)***	7.37 (8.67)***
Investment opportunities	+	56,901 (4.02)***	41,872 (3.99)***
Return on Assets (ROA)	+	3,312 (1.16)	2,050 (2.95)***
Stock Returns (RET)	+	1,254 (3.0)***	1,070 (4.48)***
Standard deviation on ROA	-	-67,121 (1.99)**	-35,089 (2.98)***
Standard deviation of RET	-	- 1,987 (3.13)***	-1,010 (4.01)***
Board Structure			
CEO duality	+	99,312 (1.88)*	43,908 (3.54)***
Board Size	+	18,435 (2.98)***	16,001 (3.98)***
Outsiders %	-	7,908 (4.02)***	3,375 (2.99)***
Interlock	+	5,631 (4.24)***	2018 (2.66)***
TNumOutDir	+	7,321 (2.77)***	3,898 (2.87)***
TNumOutDirsqd	-	-3,995 (2.01)**	3,738 (2.84)***
Ownership structure			
Common	-	-8,963 (7.07)***	-5,241 (5.98)***
Bodcom	-	-9,037 (5.55)***	-2,476 (3.69)***
Block	-	- 4,850 (2.61)***	- 1,999 (4.01)***
Reputation variable			

Tenure	+	1,854 (3.33)***	999 (3.31)***

Table 4 continued

Ind adj perf	+	2,419 (6.01)***	2020 (4.05)***
Dir rep	+	8, 554 (2.01)**	3,998 (2.02)**
TNumOut*Dir rep	+	6,001 (2.98)***	1,190 (2.83)***
Log (Media Hits)	+	2,714 (2.73)***	1,843 (2.32)**
Adj R^2		68.80%	56.95%
Incremental Adj R^2 from Reputation variables		7.60%	6.90%

Table 5

Regression of firm specific, ownership, board variables and ex-ante measure of reputation on firm performance in year 1999 to 2002. Sales and profits in billions of $. FV99 stands for value of ROA in 1999. Firm specific variables are for 1998 board and ownership variables are contemporaneous, reputation variables are from 1996 to 1998.

	Expected Sign	FV 99	FV00	FV01	FV02
Constant		0.8563 (0.99)	0.7391 (1.53)	0.8251 (2.01)**	0.7810 (1.46)
Firm Specific variables					
Sales	+	3.29 (2.02)**	4.25 (1.57)	5.83 (1.73)	4.87 (2.01)**
Profit	+	6.58 (3. 01)***	9.62 (2.01)**	5.98 (1.98)**	7.22 (1.71)
Board Characteristics					
CEO duality	-	- 0.4020 (1.58)	- 0.0253 (0.63)	- 0.0245 (0.99)	- 0.0101 (0.89)
Board Size	-	- 0.3898 (2.43)**	- 0.8163 (2.57)**	0.1002 (2.69)***	- 0.4563 (1.38)
Insiders %	+	1.5859 (2.31**)	1.6265 (2.91)***	0.9989 (2.68)**	1.0134 (2.39)**
TNumOutDir	+	0.5342 (1.60)	0.5587 (1.73)	0.4891 (1.72)	0.5328 (1.20)
TNumOutDirsqd	-	- 0.3089 (1.45)	- 0.3878 (1.53)	- 0.3583 (1.77)	- 0.01 (0.89)
Ownership Structure					
Dircom	+	0.4568 (0.88)	0.5121 (2.22)**	0.6794 (1.11)	0.5902 (2.00)**
Reputation Variable					
Dir rep	+	0.9415 (2.13)**	0.8989 (2.02)**	0.5902 (1.74)	0.4286 (0.99)
Ind adj perf	+	4.41 (3.98)***	3.87 (4.01)***	3.05 (4.0)***	3.33 (2.99)***
log (Media hits)	+	0.2938 (2.43)**	0.1986 (2.05)**	0.0909 (0.99)	0.1328 (1.01)
TNumOut*Dir rep	+	0.8989 (2.10)**	0.7339 (1.99)**	0.4040 (1.68)	0.3793 (1.02)
Adj R^2		0.29	0.2	0.13	0.08

References

Allen, Michael P., 1974, The structure of Interlocking elite cooptation: Interlocking corporate directories, American Sociological Review, 39,393-406.

Bacon, J., and J. Brown, 1974, Corporate directorship practices: Role, selection and legal status of the board, A joint research report from the Conference Board and the American Society of Corporate Secretaries Inc (New York, NY).

Bhagat, S., Black, B., 1997, Do independent directors matter? Working paper, University of Colorado, Boulder.

Booth, James R., and Deli, Daniel N., Factors affecting the number of outside directorships held by CEOs, Journal of Financial Economics 40, 1996, 81-104.

Boyd, B.K., 1994, Board control and CEO compensation, Strategic management Journal 15, 335-344.

Byrne, John A., William C. Symonds. and Julia F. Siller, 1991, CEO Disease: Egotism can breed corporate disaster and the malady is spreading. Business week, April 1, 52-60.

Core, J.E., 1997, The directors' and officers' insurance premium: an outside assessment of the cost of weak corporate governance. Working paper, The Wharton School,, University of Pennsylvania.

Core, J.E., Holthausen, R.W., Larcker D.F., 1999, Corporate governance, chief executive officer compensation, and firm performance, Journal of Financial Economics, 51, 371-406.

Deckop, J. R. 1988. Determinants of chief executive office compensation. Industrial and Labor Relations Review, 41, 215-226.

Fama, Eugene F., 1980, Agency problems and the theory of the firm, Journal of Political Economy, 88, 288 307.

Fama, Eugene F. and Michael C. Jensen. 1983a, Agency problems and residual claims, Journal of Law and Economics, 26, 327 349.

Fama, Eugene F. and Michael C. Jensen. 1983b, Separation or ownership and control, Journal of Law and Economics, 26, 301-325.

Farrell, K. and D. Whidbee. 2003. The impact of firm performance expectations on CEO turnover and replacement decisions. *Journal of Accounting and Economics* 36, 1-3: 165-196.

Fich, Eliezer M., White, Lawrence J., Why Do CEOs Reciprocally Sit On Each Other's Boards?, AFA 2001 New Orleans; NYU Ctr for Law and Business Research Paper No 01-002.

Finkelstein, S., Hambrick D., 1989, Chief executive compensation: a study of intersection of markets and political processes. Strategic management Journal, 10, 121-134.

Francis J., Huang, A.H., Rajgopal, S., and Zang, A.Y., 2005, CEO Reputation and Earnings Quality, Working Paper, Duke University and University of Washington.

Gilson. Stuart, 1990, Bankruptcy. Boards, banks, and blockholders, Journal of Financial Economics, 27, 355- 387.

Graham, J., C. Harvey and S. Rajgopal. 2004. The economic implications of corporate financial reporting. Working paper, Duke University and University of Washington.

Jensen. M.C. and W.H. Meckling, 1976, Theory of the firm: Managerial behavior, agency costs and capital structure, Journal or Financial Economics 3, 305-360.

Jensen, M., 1986, Agency costs of free cash flow, corporate finance, and takeovers, American Economic Review, 76, 323-329.

Jensen, M., 1993, The modern industrial revolution, exit, and the failure of internal control systems, Journal of Finance 48, 831-880.

Hermalin, M.S. and Weisbach, B.E., 2003, Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature, Working paper, University of Illinois and University of California.

Holderness, C., Sheehan, D., 1988, The role of majority shareholders in publicly-held corporations: An exploratory analysis. Journal of Financial Economics 20, 101-112

Kaplan. Steven N. and David Reishus, 1990, Outside directorships and corporate performance, Journal of Financial Economics, 27, 389 410.

Kreps, D., Milgrom, P., Roberts, J., and Wilson., R., 1982. Rational cooperation in the finitely repeated prisoner's dilemma. *Journal of Economic Theory* 27(2): 245-282.

Kreps, D. 1990. Corporate culture and economic theory. *In Perspectives on Positive Political Economy*, edited by James Alt and Kenneth Sheplse. Cambridge University Press: 90-143.

Lambert, R., Larcker, D., Weigelt, K., 1993, The structure of organizational incentives. Administrative Science Quarterly 38, 438-461.

Matsunaga, S. and C. Park. 2001. The effect of missing a quarterly earnings benchmark on the CEO's annual bonus. *The Accounting Review*. 76: 313-332.

Milbourn, Todd T., CEO Reputation and stock based compensation, Journal of Financial Economics, 68-2, 233-262, 2003.

Mizruchi, M.S. & L.B. Stearns. 1988. A Longitudinal Study of the Formation of Interlocking Directorates. Administrative Science Quarterly 33: 194-210.

Morck, R., Shlleifer, A., Vishny, R.W., 1988, Management ownership and market valuation: An empirical Analysis. Journal of Financial Economics, 20, 293-315.

Pfeffer, J., 1972, Size and composition of corporate boards of directors: The organization and its environment, Administrative Science Quarterly, 17, 218-229

Pi, L., and Timme S.G., "Corporate Control and Bank Efficiency," Journal of Banking and Finance 20, No. 2,3, Apr 1993,.515-530.

Rosenstein, Stuart and Jeffrey G. Wyatt, 1990, Outside directors, board independence, and shareholder wealth, Journal of Financial Economics, 26, 175.-192.

Roy, M.R., Fox, M.A. and Hamilton, R.T., 1994, Board size and potential corporate and director interlocks in Australasia 1984-1993, Australian Journal of Management, *19*, .*201-217*.

Rechner, P.L. & Dalton, D.R. 1991. 'CEO duality and organizational performance: a longitudinal analysis', Strategic Management Journal, 12: 155-160.

Schoorman, F. David, Max H. Bazerman. and Robert S. Atkin, 1981, Interlocking directorates: A strategy for reducing environmental uncertainty, Academy of Management Review, 6, 243-251.

Smith, Clifford and Ross Watts, 1992, The investment opportunity set and corporate financing, dividend, and compensation policies, Journal of Financial Economics 32, 263-292.

Walsh, J.P. & Seward, J.K. (1990) On the efficiency of internal and external corporate control mechanisms, Academy of Management Review, 15:421-458.

Weisbach, Michael S, 1988, Outside directorships and CEO turnover. Journal of Financial Economics, 20, 431-460.

Yermack, D., 1996, Higher market valuation of companies with a small board of directors, Journal of Financial Economics, 40, 185-212.