Another Look at Director Independence

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Abstract

Despite the widely held view that director independence improves corporate governance, few studies find that board composition affects firm performance or CEO compensation. In this study we compare the effect of two different measures of board composition on firm performance and excessive CEO pay. We use both the traditional definition of independent outside director and a second, more behavioral, definition that excludes problem directors (directors who in prior years were on the boards of companies that failed, involved in scandals or awarded CEOs with excessive pay packages), as a rough measure of outside director quality. For a sample of 666 non-financial firms within the Russell 1000 index in 2004, we find a significant positive relationship between the percentage of non-problem outside directors and firm performance, and a significant negative effect on excess CEO compensation. Our results suggest that director quality matters more than distinguishing outside directors as being affiliated or independent.

Another Look at Director Independence

I. Introduction

The board of directors monitors managers within the firm as the elected representatives of shareholders. Typically, boards include one or a few inside directors --current employees of the company, typically the CEO-- and a larger group of outside directors. These outside directors bring skills, management expertise and objectivity to the board. Many are current or recently retired CEOs of large companies. Their expertise allows them to provide advice to management and warn of potential problems. Of particular importance are the independent outside directors. Their independence provides objectivity and removes the need to ingratiate themselves to the CEO. This makes independent outside directors careful monitors of managerial self-dealing or excess. Given their intimate position within the firm and their ability to monitor on behalf of shareholders, independent outside directors are considered one of the most effective instruments assuring that companies are well governed. This conventional wisdom is so strong that it has been written into law (i.e., the Sarbanes-Oxley Act) and the listing requirements of the major US stock exchanges. However, after many (probably hundreds of) empirical studies surprisingly little evidence exists that more independent outside directors (or more outside directors) benefit shareholders. Similarly, with many companies associated facing financial difficulties or involved in scandals today, despite having a large percentage of outside directors, many analysts have questioned whether outside directors are doing a very good of monitoring firms.

The earliest studies of board effectiveness separated directors into inside and outside directors. Studies using this dichotomy found no consistent pattern relating board composition to firm performance. Baysinger and Butler (1985) introduced a three-way director categorization that separated the outside directors into two groups: affiliated outside directors (also known as grey directors) and independent outside directors. Affiliated directors are not current or former

employees of the company but do have some type of financial tie to the firm, such as an attorney whose firm is on retainer to the company or an outside director providing consulting services to the firm. The financial tie reduces the grey director's incentive to confront managers. The fear of losing income implies that grey directors will not monitor managers as carefully as independent outside directors. Using this three-way classification scheme Baysinger and Butler (1985) find a positive relationship between independent outside directors and firm performance.

In the early 1990s several event studies of board level decisions also find that the presence of more independent outside directors benefited shareholders [see, for example, Byrd and Hickman (1992), Brickley, Coles and Terry (1994) Cotter, Shivdasani and Zenner (1997)]. However, numerous studies looking at more general corporate performance in later years find no clear evidence that more independent outside directors enhance corporate performance [see Bhagat and Black (1999) and Larcker, Richardson, Seary and Tuna (2005)].

Recently authors have begun to question whether the biographical and financial information from proxy statements - the primary source of data for director classifications - is sufficient. Morck (2004) suggests that most directors have some tie to the CEO so are psychologically predisposed to agree with or obey the CEO rather than to dissent. There is also the potential problem of directors having a limited perspective or approach to problems since board members tend to have very similar career paths and socio-economic backgrounds [Davis, Yoo and Baker (2003)]. There is also the possibility that boards suffer from groupthink, the social psychological tendency to not dare voice individual or contrary opinions and to want to go along with the apparent consensus [Fanto (2003)]. While these non-financial attributes can certainly affect a director's objectivity, measuring them is extremely difficult.

The ideal director classification variable would be one that measured the quality of a director's monitoring. Such a variable would address both the expertise and objectivity factors

of the Baysinger and Butler (1985) classification as well as the psychological factors discussed above. A director who is a good monitor apparently has both the business acumen and psychological independence to confront managers when necessary. In this study we modify the standard three-way director classification scheme to include another category - problem directors. We use the Corporate Library's *Directors Problem* variable, which is defined as:

Problem Directors are those individuals who have been personally involved, as a director or executive, in one or more corporate bankruptcies, major litigation and regulatory infractions, major accounting restatements and other corporate scandals, or have served on Compensation Committees that have approved particularly egregious CEO compensation packages or other similar circumstances.

By removing the problem directors from our independent outside director and our outside director groups, we are left with non-problem directors or higher quality directors. We conduct tests on excessive CEO pay and firm stock market performance. Using the standard three-way director classification scheme, we find no relationship between the presence of more independent outside directors and excessive CEO pay or firm performance. However, using the new variable - non-problem outside directors - we find a significant negative relationship between excessive CEO pay and the presence of these directors, and a significant positive relationship between firm stock performance and a higher proportion of non-problem outside directors.

The paper is organized as follows. Section II contains a brief overview of related studies. Section III provides a description of the data, hypotheses, and methodology. Section IV includes a summary of the results, followed by a summary and conclusion in Section V.

II. Related Literature

Despite a rising percentage of outside board members on the boards for publicly-traded firms, previous studies generally do not find evidence of a significant relationship between board independence and firm performance [see Bhagat and Black's (1999) for a survey of the literature]. Bhagat and Black (1999) point out that there is even some evidence that firms having a larger percentage of inside directors perform as well as firms with a majority of independent directors, and better than firms with a supermajority of independent directors. Bhagat and Black note that the overall evidence is more consistent with anecdotal evidence that independent directors act more like "lapdogs rather than watchdogs." Possible explanations they suggest include the greater expertise of inside directors or affiliated directors that have an ongoing business relationship with a firm; a better succession of CEOs if more insiders as candidates are on a board, better strategic planning expertise by inside directors, and stronger incentives by inside versus independent directors.

In a similar vein, Brick, Palmon, and Wald (2002) point out that several studies find evidence consistent with Jensen's (1993) argument that boards often are ineffective in monitoring managers, as the result of information asymmetry problems between managers and board members, and board cultures that discourage criticism. Large boards and the existence of grey, overly busy, and interlocked directors have been associated with weaker monitoring, lower firm performance, and high CEO compensation, supporting this premise [Core, Holthausen, and Larcker (1999); Ferris, Jagannathan and Pritchard (2003); Mehran, (1995); and Yermack (1996)]. Greater management participation in board of director selection has also been associated with a lower proportion of outside directors [Shivadasani and Yermack (1999)], although other studies suggest a negative effect when CEO's are not involved in director nominations [Callahan, Millar, and Schulman (2003)]. Bebchuk, Fried,

and Walker (2002) suggest that outside board of directors may have significant difficulties having leverage in determining CEO compensation, since CEOs have significant influence over director compensation as well and, in contrast to insiders, they do not have as close a relationship with the CEO. Recent problems with directors of public firms, such as Hewlett Packard, have even prompted headlines suggesting that outside directors in some cases may be part of a firm's problem versus promoting effective corporate governance.

As noted by Chhaocharia and Grinsten (2006) studies examining whether board structure affects compensation also generally do not find a significant relationship for cross-sectional differences in firm compensation [Yermack, 1996; Angbazo and Narayanan (1997); Core, Holthausen and Larcker (1999); Cyert, Kang and Kumar (2002); Grinstein and Hribar (2004)]. In contrast, Chhaochharia and Grinstein (CG) (2006) find a significant decrease in CEO compensation and greater option-based compensation for NYSE and NASDAQ publicly-traded firms after 2004, associated with mandates for greater board independence under Sarbanes Oxley. Their results suggest board independence should matter. Barnea and Guedj (2006) examine director characteristics for firms in the S&P 1,500 index during 1996 to 2004 to explore how networks of directors affect CEO compensation. They find evidence that CEO's with more connected firms (in the top quintile of connected firms) receive both a higher salary and a higher compensation, adjusting for size, industry and other factors, than firms in the bottom quintile, similarly suggesting that board of director composition has a significant effect on CEO compensation.

III. Brief Overview of Data and Methodology

In this study we extend upon the previous literature by examining the relationship between a rough measure of board quality and two dependent variables: a firm's industry-

adjusted stock performance and excessive CEO compensation. We contrast these results with similar tests using the traditional measure of director independence. The specific hypotheses that this paper tests are that more independent outside board members or boards with fewer problem directors will be associated with better stock market performance and lower excessive CEO compensation. We test these hypotheses by examining respectively the effects of the percentage of traditionally-defined independent directors and the percentage of non-problem independent and non-problem outside directors on respectively firm performance and excess CEO compensation.

A. Data

The sample consists of 666 non-financial firms from the Russell 1000 index during 2004, with data from the Corporate Library database, which includes corporate governance variables, industry-adjusted stock returns for the previous three years (2002 to 2004), and CEO compensation data. This data is supplemented with CEO and director ownership data from company proxy statements (Def 14A forms from the SEC Edgar website). In particular for our measure for the percentage of non-problem independent directors, we subtract any independent outside directors labeled as problem directors from the number of independent directors used to compute the proportion of independent outside directors on the board. We use the problem director variable created by the Corporate Library, as defined earlier in the paper. We follow this same procedure to compute the percent of non-problem outside directors on the board. We subtract the number of outside directors categorized as problem directors from the total number of outside directors, and use the result to compute the proportion of non-problem outside directors. For our purposes it is important to know that directors are labeled as problem directors based on their actions prior to 2004. Thus, the categorization is independent of the CEO pay decision of 2004. In terms of stock market

performance, according to the analysts at the Corporate Library, the categorization is based on scandals or bankruptcies from periods prior to 2004, which could be reflected in the three-year stock market performance we examine. However, the Corporate Library does not use below-average or poor stock market as a criterion for a person being labeled a problem director. Only extremely poor performance leading to bankruptcy would cause a director to be categorized as a problem director.

B. Methodology

To test whether non-problem outside (or independent outside) directors have more of a governance effect than traditionally defined independent directors, we examine the respective relationships between the percentage of traditionally-defined independent directors and the percentage of non-problem outside (and independent outside) directors on respectively a firm's three-year industry-adjusted stock returns and on a firm's excess CEO compensation based on industry peers. We estimate robust regression models using the rreg procedure in STATA, which assigns outliers a lower weight than other observations using a weighting function. This allows us to avoid decisions about arbitrarily deleting outliers or potentially influential observations. The models estimated are as follows:

$$\textit{Firm performance} = f(\textit{Board Composition, Corporate Governance Variables, Ownership Structure, Board Independence Variables})$$

$$\textit{Excess CEO Pay} = f(\textit{Board Composition, Corporate Governance Variables, Ownership Structure, Board Independence Variables})$$

where:

Dependent Variables:

Firm performance = the industry-adjusted three year stock performance for a firm;

Excess CEO Pay = the residual term from a first stage regression of total CEO compensation on various performance, size and complexity variables;

Independent Variables:

Percent of Independent Directors = traditional definition as the percentage of independent (non-affiliated) outside directors on a firm's board;

Percent of non-problem Independent Directors = the percentage of independent directors excluding independent outside directors labeled as problem directors.

Percent of Outside Directors = traditional definition as the percentage of affiliated and independent outside directors on a firm's board;

Percent of non-problem Independent Directors = the percentage of outside directors excluding outside directors labeled as problem directors.

Board Size = the number of directors on a board for each firm;

Directors on board over 15 years = the number of directors on a board for over 15 years;

Busy Director = an indicator variable equal to 1 (0, otherwise) if a director is on over 4 boards;

CEO is also chair = an indicator variable equal to 1, if a CEO is also chairman of the board;

Staggered Board = an indicator variable equal to 1, if a firm has staggered board elections;

CEO Stock Ownership (%) = the percent of outstanding common stock beneficially owned by the CEO;

% Ownership of Large Outside Stakeholders = the percentage of outstanding common stock owned by all investors with a 5% or higher stake in the company.

Log of Market Capitalization = the natural log of the company's market capitalization.

We include these variables because they have either been theorized to or have been found to affect firm performance and/or pay for performance in previous studies. Previous research suggests that when the CEO is also the chairman of the board, the CEO will have greater power to influence CEO compensation. Similarly, staggered boards, whereby only a small percentage of members are up for election each year, may reduce the threat of an ouster of board members, resulting in a lower board discipline of the CEO to satisfy stockholder demands. Also, as noted by Jensen (1993) and empirically supported in association with performance relationships by Yermack (1996), large boards may be diffuse and less effective in disciplining CEO's than small boards. Furthermore, busy board of directors that serve on other boards may either provide less oversight, associated with having less time to be involved in board decisions, may provide greater expertise by gaining experience with other board duties, or may signal their quality as directors by being better monitors [Ferris, Jagannathan and Pritchard (2003); Fich and Shivdasani (2006)]. Longer tenure on the board may have a positive effect on corporate governance given the greater expertise of those seasoned directors and willingness to confront a CEO versus a younger, newer board member. Alternatively, tenure may have a negative effect if tenure results in a closer connection with the CEO, and hence greater cronyism, as suggested by Vefeas (2003) and Bebchuk, Fried, and Walker (2002).

Large stakeholders (in our models those owning 5% or more of the outstanding common stock) may indicate a greater incentive to monitor management activity, so may be associated with better overall performance by the board and executive team.

Market capitalization is a standard size variable used in cross-sectional regression models.

Empirical Results:

A. Descriptive Statistics

Table 1 shows the descriptive statistics for the sample of 666 non-financial firms from the Russell 1000 index with data from 2004. In Panel A, the size, performance, and ownership characteristics are summarized. The mean size in terms of market capitalization for the sample is $12.7 billion, with a median of $4.26 billion, and a wide range from $272 million to $308 billion. The industry-adjusted 3-year stock return (stock return less peer benchmark returns for 2002 to 2004) is -33.9 percent, with a median of -42.6 percent, reflecting the lower than peer returns on average over the time period, with a maximum return of 454.8 percent and minimum of -419.2 percent. Manager and Directors on average had stock ownership in the firm of 9.0 percent, with a median of 3.4 percent and a range from 0 to 89.7 percent.

For the board size and composition variables (shown in Panel B), the average board size was 9.96, with a median of 10 board members, and a range from 5 to 18 members. The percentage of independent outside directors based on the traditional definition for the sample is 69.3 percent on average, with a median 71.4 percent, consistent with other studies, finding the majority of directors for firms publicly traded to be outside directors. The range in traditional independent outside directors is 14.3 to 100 percent, with the majority of firms (75 percentile) having 81.8 percent. Affiliated (grey) outside directors were on average 13.3 percent, with a median of 11.1 percent, and a range from 0 to 66.7 percent. When non-problem and affiliated directors are subtracted from the percentage of independent outside directors, the average percentage of independent non-problem directors falls to 63.5 percent (median of 66.7 percent), with a very wide range from 0 to 92.9 percent across firms. On

average firms had 17.4 percent inside directors (median 14.3 percent) and a range from 0 to 62 percent.

As shown in Panel C, for other firm governance characteristics, the majority of firms on average (68.5 percent) had the CEO as the Chairman of the Board and had Staggered Boards (59.4 percent). Panel D shows the distribution for the sample across industry groups with about 45 percent of the firms in the sample manufacturing firms, 15.77 percent transportation and communications, 15.63 percent service firms, 13.69 percent wholesale and retail sales, 6.10 percent resources extraction and construction, and 4.17 percent food and beverage firms.

A. Empirical Results

Table 2 shows the regression results for the three-year industry-adjusted stock returns for each firm regressed against governance, ownership, and size variables. The coefficient estimates and standard errors are estimated using the robust regression procedure in STATA [see more discussion of this robust regression procedure see Hamilton (1992)]. The results presented are similar to those from OLS regressions with 6 to 8 extreme outliers removed. Model 1includes the traditional definition of independent outside directors as the board composition measure. Model 2 uses the percentage of outside directors as the board composition measure. Neither of these board composition variables has a statistically significant coefficient, contrary to predictions that more outside, and particularly more independent outside, directors should improve firm performance. Model 3 modifies the traditional independent directors measure by excluding any independent outside directors categorized as problem directors. Although the coefficient is signed positive as expected, it is not statistically significant (p-value of 16.7%). Model 4 includes the proportion of non-problem outside directors as the board composition variable. Its coefficient is signed positive and statistically significant at the 5% level. These results suggest that the important attribute

of directors, relative to firm performance, is not independence but quality. Non-problem outside directors, whether affiliated or independent, are associated with better performance than other director categories.

Table 3 presents robust regression results for excessive CEO pay regressed on the same set of explanatory variables as in Table 2. Excessive CEO pay was estimated by regressing total CEO compensation (from the Corporate Library database for 2004) on a set of size, complexity, performance and CEO ownership and attributes variables. The residuals from this regression become the dependent variable in the regressions shown in Table 3.

Model 1includes the traditional definition of independent outside directors as the board composition measure. It is not statistically significant. Model 2 uses the percentage of outside directors as the board composition measure. The coefficient is signed positive and statistically significant, implying that more outside directors are associated with excessive CEO compensation. Model 3 modifies the traditional independent directors measure by excluding any independent outside directors categorized as problem directors. Although the coefficient is signed negative as expected, it is not statistically significant (p-value of 48.3%). Model 4 includes the proportion of non-problem outside directors as the board composition variable. Its coefficient is signed negative and statistically significant at the 5% level. Thus, non-problem outside directors tend to control excessive CEO compensation. Like the results in Table 2, these results suggest that director quality is a more important attribute than independence. Non-problem outside directors, whether affiliated or independent, are associated with lower excess CEO pay than other director categories.

Table 4 examines whether the presence of more problem directors is associated with poorer stock market performance and more excessive CEO pay. The % Problem Director variable is computed by dividing the number of outside (independent and affiliated) directors

categorized as problem directors by the total number of directors on the board. The first row of results show that the problem director variables is signed as expected and highly significant in almost all models. A higher proportion of problem directors is associated with higher excess CEO compensation and with lower industry-adjusted stock market performance over 3-year and 5-year horizons. These results provide further evidence that director quality is an important determinant of governance effectiveness.

The traditional measure of director independence, as determined from biographical information in proxy statements, may err in two ways. A completely ineffectual director can appear to be independent because their biographical information shows no links to the firm the person sits on the board of. Independence also excludes affiliated directors whose expertise and more intimate relationship may make them particularly effective directors. By looking at quality, as determined by previous performance as a director or executive, we obtain a more direct and relevant measure of director effectiveness. Admittedly our measure is crude, screening out only the most extreme cases, but it does suggest that finding methods to measure director quality could provide insights into what makes a strong, effective board.

IV. Summary and Conclusion

In this study we examine the premise that traditional measures of board independence may fail to reflect behavioral factors that may determine the effectiveness of board members. To test this hypothesis, we adjust the traditional definition for an independent director by removing problem directors, based on the Corporate Library's problem director variable, as a proxy for directors that are less likely to be effective monitors based on their previous performance. We utilize data for 666 non-financial firms on the Russell's 1000 index to examine the respective relationship between the traditional and non-problem independent

director measures on firm performance and excess CEO compensation. The empirical results demonstrate a significant positive effect of non-problem outside directors on firm performance and a significant negative effect on excessive CEO compensation. This contrasts with an insignificant effect for the percentage of directors based on the traditional definition of independence. The results suggest that effective board members may be either affiliated (grey) or independent. The results also show that a director's previous behavior may be a good indicator of their future performance as a director. Our admittedly preliminary attempt to examine more closely the nature of independent boards may be summed up as, *Actions speak louder than words*; that is, prior behavior of directors means more than the biographical details included in the proxy statement. We hope that future research builds on our first attempt to examine director quality by examining different periods, different samples and developing better measures of director quality.

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Table 1

Descriptive statistics for a sample of 666 non-financial firms from the Russell 1000 index with data from 2004

Panel A: Size, performance and ownership

	Market Capitalization (in Millions)	Industry adjusted 3-year stock return	Manager and Director Ownership %
Mean	12,700	-33.9%	9.0%
Median	4,260	-42.6%	3.4%
StandDev	30,000	78.9%	14.4%
Minimum	272	-419.2%	0.0%
Maximum	308,000	454.8%	89.7%
25% percentile	2,520	-79.6%	1.6%
75% percentile	10,700	-1.3%	8.9%

Panel B: Board size and composition

	Board Size	% Independent Outside Directors	% Affiliated Outside Directors	% Inside Directors	% Non-problem Independent Directors	% Non-problem Outside Directors
Mean	9.96	69.3%	13.3%	17.4%	63.5%	76.3%
Median	10.00	71.4%	11.1%	14.3%	66.7%	80.0%
Standard Deviation	2.30	16.1%	13.4%	9.3%	20.9%	14.3%
Minimum	5.00	14.3%	0.0%	0.0%	0.0%	0.0%
Maximum	18.00	100.0%	66.7%	62.0%	92.9%	93.3%
25% percentile	8.00	57.1%	0.0%	10.0%	54.5%	70.0%
75% percentile	11.00	81.8%	21.4%	22.2%	77.8%	87.5%

Panel C: Other firm governance characteristics

	CEO is also Chairman	Staggered Board
Percent	68.8%	59.0%
Number	456.00	391.00

Panel D: Distribution across industry group

Industry Group	SIC	Number of Firms	%
Resources Extraction & Construction	1000-1600	39	6.1
Food and Beverage	2000-2100	28	4.2
Manufacturing	2200-3990	299	44.6
Transportation, Communications	4000-4955	106	15.8
Wholesale and Retail Sales	5000-5990	92	13.7
Services	7011-8742	102	15.6
	Total	666	100.00

Table 2: Results from robust regressions of 3-year industry adjusted stock returns on various board and governance variables for 668 non-financial firms from the Russell 1000 index with all data except stock returns from 2004. Statistical significance: * at the 10% level, ** at the 5% level and *** at the 1% level.

	Model 1	Model 2	Model 3	Model 4
% Independent Outside Directors	-7.16			
t-statistic	**-0.45**			
% Outside Directors		-13.93		
		-0.55		
% Non-Problem Independent Outside Directors			1.87	
			1.38	
% Non-Problem Outside Directors				33.72
				1.98**
Board Size	1.77	1.78	0.60	1.79
	1.43	**1.43**	**0.40**	**1.46**
# Directors with over 15 years of tenure on board	-2.35	-2.26	-1.74	-2.01
	-1.47	**-1.44**	**-1.09**	**-1.29**
# Directors on 4 or more other boards	-2.03	-2.01	-1.91	-1.79
	-1.14	**-1.13**	**-1.08**	**-1.01**
CEO is Chair	7.47	7.20	5.47	6.26
	1.40	**1.38**	**1.04**	**1.21**
Staggered Board	4.26	4.52	3.17	2.52
	0.86	**0.91**	**0.64**	**0.51**
CEO Ownership %	-5.93	-5.78	6.66	7.39
	-0.15	**-0.15**	**0.17**	**0.19**
% Ownership of Large Outside Stakeholders	-38.27	-37.73	-33.83	-34.19
	-2.31**	**-2.28****	**-2.04****	**-2.08****
Log of Market Capitalization	-7.34	-7.32	-7.06	-6.58
	-2.92***	**-2.92*****	**-2.81****	**-2.60****
Constant	116.12	121.94	104.54	68.09
	2.10*	**2.12***	**1.91**	**1.16**
Number of obs	668	668	668	668
F-statistic	2.19	2.19	2.32	2.59
p-value of F	0.02	0.02	0.01	0.01

Table 3: Robust regressions of excess CEO total pay (estimated using regression of CEO total pay on firm size, governance and performance variables) on various board and governance variables for 666 non-financial firms from the Russell 1000 index with all data from 2004. Statistical significance: * at the 10% level, ** at the 5% level and *** at the 1% level.

	Model 1	Model 2	Model 3	Model 4
% Independent Outside Directors	312354.2			
t-statistic	**1.23**			
% Outside Directors		794745.4		
		1.97**		
% Non-Problem Independent Outside Directors			-15293.35	
			-0.7	
% Non-Problem Outside Directors				-525469.9
				-1.92*
Board Size	-8154.4	-11453.6	4605.6	-3993.2
	-0.43	**-0.61**	**0.2**	**-0.21**
Directors on board over 15 years	-10606.5	-15558.2	-20515.3	-18313.7
	-0.42	**-0.62**	**-0.8**	**-0.73**
Busy Directors (on 4 or more other boards)	533162.3	495948.4	526705.9	509491.5
	1.89*	**1.76***	**1.87**	**1.81***
CEO is also Chair	-244334.3	-241563.1	-207798.3	-208771.6
	-2.87***	**-2.90*****	**-2.47****	**-2.52****
Staggered Board	-7021.3	-16525.9	9685.0	18520.3
	-0.09	**-0.21**	**0.12**	**0.23**
CEO Stock Ownership (%)	-2763567.0	-2703290.0	-2996652.0	-3115196.0
	-4.46***	**-4.39*****	**-4.85*****	**-5.07*****
% Ownership of Large Outside Stakeholders	-77853.0	-76851.0	-152294.8	-159559.1
	-0.29	**-0.29**	**-0.57**	**-0.6**
Log of Market Capitalization	-81634.3	-82835.6	-83920.3	-93346.0
	-2.03**	**-2.07****	**-2.08****	**-2.29****
Constant	1630010.0	1271247.0	1867434.0	2469854.0
	1.86	**1.4**	**2.14****	**2.62*****
Number of obs	666	666	666	666
F-statistic	5.01	5.30	4.89	5.30
p-value of F	0.00	0.00	0.00	0.00

Table 4: Robust regressions of excessive CEO pay and industry-adjusted stock returns for 1, 3 and 5 years on the percent problem directors on a company's board and other governance and size variables. All data except multi-year stock return data is from 2004 for 668 non-financial companies in the Russell 1000 index. Statistical significance: * at the 10% level, ** at the 5% level and *** at the 1% level.

Dep. Vars.:	Excess CEO Pay	1-yr Ind.Adj.Stk Ret.	3-yr Ind.Adj. Stk Ret.
% Problem Directors	1591855.0	1.29	-54.95
t-statistic	**5.14*** **	**0.08**	**-2.85*** **
Board Size	-12207.2	1.67*	2.02*
	-0.65	**1.74**	**1.73**
# Directors with over 15 years of tenure on board	-15422.2	-0.61	-2.11
	-0.62	**-0.47**	**-1.36**
# Directors on 4 or more other boards	353573.8	15.75	-18.32
	1.25	**1.08**	**-1.04**
CEO is Chair	-234127.4	2.86	8.13
	-2.83* **	**0.68**	**1.58**
Staggered Board	11851.9	2.25	3.78
	0.15	**0.56**	**0.78**
CEO Ownership %	-3168372.0	-28.36	0.22
	-5.21* **	**-0.91**	**0.01**
% Ownership of Large Outside Stakeholders	-132914.0	-13.23	-34.06
	-0.51	**-0.98**	**-2.08** **
Log of Market Capitalization	-124366.2	-7.12	-5.93
	-3.04* **	**-3.42*** **	**-2.35** **
Constant	887790.0	45.17	54.78
	3.16 **	**1.96** **	**1.42**
Number of obs	666	668	668
F-statistic	7.96	1.74	3.21
p-value of F	0.000	0.0764	0.001