CORPORATE GOVERNANCE AND FIRM PERFORMANCE IN AN EMERGING MARKET - AN EXPLORATORY ANALYSIS OF PAKISTAN

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Abstract

This preliminary study aims to develop a corporate governance index based on governance practices followed by the listed firms at Karachi Stock Exchange (KSE). Since the corporate governance concept is at very initial level of its implementation and practices, this study also analyses the structure of good corporate governance practices and level of awareness about new regulations of corporate governance implemented by Security Exchange Commission of Pakistan. The data is collected through a structured questionnaire covering seven corporate governance categories: audit committee, board of directors, charter/bylaws, director education, executive and director compensation, ownership, and the progressive practices during the year 2004. The results indicate that all of the firm performance measures; return on equity, net profit margin, sales growth and dividend yield (except Tobin's Q) have their expected positive relation with corporate governance index score (Gov-Score) and are significant in correlation and decile analysis. This suggests that firms with relatively poor governance are relatively less profitable, less valuable, and pay less cash to their shareholders. The role of audit and board of director are highly associated with good performance while the governance categories related to director's education and charter/bylaws are least associated with good performance.

Keywords: corporate governance, firm performance, governance categories

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1. Introduction

Pakistan stock market is one of the leading emerging markets in the world. It has gone through series of reforms and structural changes since 1991. Financial reforms during 1990s have influenced the pattern of capital structure, dividend policy, risk premia, and compliances to corporate governance (Nishat, 1999). Very recently in 2002 Securities Exchange Commission of Pakistan (SECP) has directed for the purpose of establishing a framework of good corporate governance whereby a listed company is managed in compliance with best practices and in exercise of the powers conferred by sub-section (4) of the section 34 of the Securities and Exchange Ordinance, 1969 (XVII of 1969). The underline motives for planned corporate governance was to improve the overall governance practices firstly, through quality and independent board of directors and secondly improved management policies on investor communications. It is the first time that corporate sector is required to implement the corporate governance rules and provide the undertaken of its compliance. We expect that with the openness and compliance the performance of corporate sector will improve at both individual firm level and at aggregate level.

Better corporate governance is supposed to lead to better corporate performance by preventing the expropriation of controlling shareholders and ensuring better decision-making. Corporate governance is the process and structure through which a firm's business and affairs are managed by enhancing business prosperity and corporate accountability with the ultimate objective of enhancing shareholder's wealth. Most of the research in the area of corporate governance is done for developed economies, as rich data is only available for these economies where active market for corporate control exists and the ownership concentration is low (Bohren and Odegaard, 2001). Pakistan like many developing countries is characterized by relatively weak investor's protection and corporate law enforcement. Pakistani market is also characterized by the ownership concentration; cross-shareholdings and pyramid structure and the dominance of family business (Ghani and Ashraf, 2004).

Earlier Mir and Nishat (2004) empirically tested the link between corporate governance structure and the firm performance in Pakistan. This study differs from Mir and Nishat (2004) since it includes a different set of performance parameters which include, return on equity, net profit margin, sales growth, Tobin's Q and dividend yield. Moreover, to determine parameters of corporate governance, Mir and Nishat (2004) used secondary data from the annual statements.

This paper is based on the secondary as well as on primary survey of different companies listed with Karachi Stock Exchange. We create a summary index of firm-specific governance, "Gov-Score," and relate it to operating performance, valuation, and cash payouts for 226 firms listed with Karachi stock Exchange. We show that poorly governed firms (i.e., those with low Gov-Scores) have lower operating performance, lower valuations, and pay out less cash to their shareholders, while better-governed firms have higher operating performance, higher valuations, and pay out more cash to their shareholders.

This paper identifies several factors representing good governance that (as expected) are related to good performance that have seldom been studied before, providing new focal points for those seeking to link good governance to good performance.

The rest of the paper is organized as section 2 identifies the hypotheses. Section 3 describes the data and research methodology followed by discussion of results in section 4. The summary and concluding remarks are presented in section 5.

2. Hypotheses

H_1: Better-governed firms have better operating performance

Effective corporate governance reduces "control rights" stockholders and creditors confer on managers, increasing the probability that managers invest in positive net present value projects, (Shleifer and Vishny, 1997), suggesting that better-governed firms have better operating performance, our first proxy for firm performance.

H_2:Better-governed firms are more valuable

Gompers et al. (2003), Bebchuk and Cohen (2004) and Bebchuk, Cohen and Ferrell (2004) show that firms with stronger stockholder rights have higher Tobin Q's, their proxy for firm value, suggesting that better-governed firms are more valuable, our second measure of firm performance.

H_3: Better-governed firms pay out more cash to shareholders

Consistent with the notion that earnings are retained for empire building rather than for engaging in positive net value projects, Arnott and Asness (2003) find that firms with relatively smaller dividend payouts have relatively lower earnings growth, suggesting that better-governed firms pay out more cash to shareholders, our third proxy for firm performance.

3. Data and Research Methodology

We create a summary metric, Gov-Score, to measure the strength of a firm's governance. We compute Gov Scores for 226 individual firms as of December 1, 2004 using data obtained from the annual reports. The data is collected through a questionnaire containing 37 factors as either 1 or 0 depending on whether the firm's governance standards are minimally acceptable. We then sum each firm's 37 binary variables to derive Gov-Score. We consider five performance measures spread across three categories: operating performance, valuation and shareholder payout. We select the three operating performance measures, return on equity, profit margin and sales growth, Tobin's Q, the single valuation measure and single measures of shareholder payout, dividend yield.

Table 1 shows the percent of sample firms with minimally acceptable governance standards for our 37 corporate governance factors. Average score for 37 variables is 65.546%.

The research methodology involves two types of cross-sectional analyses. Firstly, we determine correlation between Gov-Score with each industry-adjusted fundamental variable using Pearson and Spearman correlations. We then order Gov-Scores from highest to lowest (i.e. from best to worst governance), and analyse if firm performance differs in the extreme governance deciles. For example, when we examine return on equity, we compare industry-adjusted return on equity for firms in the top Gov-Score decile with those in the bottom decile, and we use a t-test to determine if the mean values of return on equity in the top and bottom deciles of Gov-Scores differ significantly. To assess which categories and factors are associated with expected/unexpected (good/bad) performance, we correlate the five performance measures with seven governance categories and 37 governance factors. We consider a category or a factor to be associated with good/bad (expected/unexpected) performance if it is positive/negative and significant at the 10% level or better using a one-tailed test.

4. Results Discussion and Interpretation

4.1.Gov-score and Firm Performance

Table 2 presents Pearson and Spearman correlations between Gov-Score and firm performance. Excepting Tobin's Q, all of the performance measures are significant with their expected positive signs for at least one of the correlations.

The positive Pearson correlations range from a low of 0.0611 (returns on equity) to a high of 0.126 (dividend yield), while the positive Spearman correlations range from a low of 0.067 (net profit margin) to a high of 0.102 (dividend yield).

This study shows that better governed firms have higher dividend yields. However, we do not find that better governed firms to have higher sales growth and better valuation. The magnitude of correlation between Gov-Score and Tobin's Q is of 0.061which is significant at 10%.

We also find negative correlation between Gov-Score and sales growth but its magnitude is very low. Table 3 shows the mean performance of each measure by docile sorted in decreasing order of Gov-Score. By construction, the mean Gov-Score in a docile is about the midpoint of the decile's Gov-Score.

For example, in the analysis of return on equity, mean Gov-Scores for the top three Gov-Score deciles are 32.318, 30.578 and 29.601, while those for the bottom three deciles are 25.039, 25.853 and 26.492.

The results presented in table 3 reveal significant differences in performance between the top and bottom deciles of Gov-Score of the expected direction for five performance measures. Firms in the top and bottom deciles of Gov-Score have:

- Return on equity that is 8.262 % above the industry average, for a spread of 0.468%.
- Net profit margin, that is 0.297 % above the industry average, for a spread of 0.244%.
- Sales growth that is 0.206 % above the industry average, for a spread of -1.1758 %.
- Tobin's Q that is0.767% above the industry average, for a spread of -0.614.
- Dividend yield that is 3.903 % above the industry average, for a spread of1.845 %

In summary, results presented in table 2 and table 3 reveal that firms with better governance, as measured via larger Gov-Scores, have higher returns on equity, higher profit margins and pay out more cash dividends.

In contrast, firms with poorer governance, as measured via lower Gov-Scores, have lower returns on equity, lower profit margins and pay out less cash dividends.

4.2. Categories and Factors Associated with Firm Performance

4.2.1. Categories Associated with Firm Performance

Table 4 shows the association of the seven governance categories with our five performance measures. Return on equity is negatively associated with four governance categories and three of them are significant. Return on equity has a positive and significant relation with the other three categories, audit, ownership and charter/bylaws.

Net profit margin also is positively associated with six categories and all of them are statistically insignificant. Net profit margin has a negative but insignificant relation with the charter/bylaws. Sales growth is positively associated with four categories but none of the relations are statistically significant. Tobin's Q is negatively associated with five categories and all of them are significant. Dividend yield is positively associated with three categories and all the correlations are significant. Regarding the other four categories, they all have negative and statistically significant relation with dividend yield.

The results presented in table 4 confirm with those in table 3 that governance is related to firm performance. Based on 35 comparisons (seven categories times five performance measures), the correlations are positive 51.43 % of the time (18 times). Net profit margin and dividend yield are positively related to most of the governance categories and the relationship is statistically significant. Our results for specific governance categories can be summarized as follows (presented in decreasing order of their conformance with expected performance):

- Executive and director compensation is positively correlated with net profit margin and sales growth but the relationship is statistically insignificant.
- Progressive practices are positively correlated with four out of five performance measures and the relation is statistically significant. Progressive practices are not significant when they have the 'wrong' sig.
- Ownership is positively correlated with three out of five categories. Ownership has a statistically significant "wrong" sign.
- Executive and director Compensation has three positive correlation and statistically significant wrong sign with return on equity.
- Director education is significant with two negative significant signs.
- Charter/Bylaws have only a positive correlation with sales growth but it is statistically insignificant.

- Audit has four positive signs out of five performance measures and only three are statistically significant.

4.2.2. Factors Associated with Firm Performance

Table 5 shows the association of the 37 governance factors with performance. The three factors with positive signs possessing the largest correlations with return on equity are audit committee meets at least once every quarter of the year, audit committee consists solely of independent outside directors and directors are subject to stock ownership guidelines.

The three factors with unexpected (negative) signs that have the largest correlations with return on equity are: Board has outside advisors; board members are elected every three years and stock incentive plans were adopted with shareholder approval. Fifteen factors are significantly negatively associated with return on equity (see table 4). Twenty-four factors are negatively associated with net profit margin but all are statistically insignificant. The three factors with positive signs that have the largest correlations with net profit margin are: the size of board of directors is at least six but not more than 15 members, shareholders approval is required to change board and a board approved plan is in succession. The factors with negative signs have small correlation values. Fourteen factors are negatively associated with sales growth but they all are statistically insignificant. Twenty three factors are positively associated with sales growth and they all are statistically significant. The three factors with positive signs that have the largest correlations with sales growth are: mandatory retirement age for directors exists, audit committee consists solely of independent outside directors and shareholders approval is required to change board size. The three factors with negative signs and the largest correlations are: the size of the board of directors is at least six but not more than 15 members; company encourages board members to attend professional training programs and board members are elected after every three years.

Eighteen of the 37 governance factors are positively associated with Tobin's Q and they all are significant, while seven of the 19 factors that are negatively associated with Tobin's Q are statistically significant. The three most highly associated factors with a positive sign are: Mandatory retirement age for directors exists, directors are subject to stock ownership guidelines and no former CEO serves on board. The three significant factors with a negative sign are: stock incentive plans were adopted with shareholders approval, the CEO and chairman duties are separated or a lead director is specified and the board of directors includes at least one independent outside director.

As shown eighteen of the 37 factors are positively associated with dividend yield and they are significant, while nineteen of the 37 factors are negatively associated with dividend yield and are significant. The three most highly associated factors with a positive sign are: Mandatory retirement age for directors exists, audit committee meets at least once every quarter of the year and stock incentive plans were adopted with shareholder approval. The three most highly associated factors with a negative sign are: board has outside advisors, shareholders approval is required to change board size and shareholders are allowed to call special meetings.

The results presented in table 5 confirm our findings discussed in table 3 and table 4, that governance is related to performance. There are 185 factor-performance combinations (37 governance factors multiplied by five performance measures). Ninety-four of the factors have their expected signs so we obtain the expected result 51% of the time. Similarly, of the 115 cases of significance, 70 have their expected signs, so when the results are significant, they are as expected 60.86 % of the time. Thus, our results indicate that good governance (based on factors) is related to good performance majority of the time. The following factors have a positive and significant correlation with at least three of the five performance measures, making them the governance factors that are most closely linked to expected performance:

- Audit committee consists solely of independent outside directors (3 out of 5).
- Audit committee meets at least once every quarter of the year (4 out of 5).
- Company has a formal policy on auditor rotation(5 out of 5).
- All directors attended at least 75% of board meetings or had a valid excuse for non-attendance. (3 out of 5).
- Size of board of directors is at least six but not more than 15 members (3 out of 5).
- The CEO and chairman duties are separated or a lead director is specified (3out of 5).
- Shareholder approval is required to change board size (4 out of 5).
- Board cannot amend bylaws without shareholder approval or can only do so under limited circumstances (3 out of 5).
- Non-employees do not participate in company pension plans (3 out of 5).
- Stock incentive plans were adopted with shareholder approval. (4 out of 5).
- Directors receive all or a portion of their fees in stock. (4 out of 5).
- Directors are subject to stock ownership guidelines (4 out of 5).

- Mandatory retirement age for directors exist. (5 out of 5).
- Performance of the board is reviewed regularly. (4 out of 5).
- A board-approved CEO succession plan is in place. (3 out of 5).
- Director term limits exist. (3 out of 5).

Following factors have a negative and significant correlation with three of the five performance measures. The linkage between performance and these factors can be interpreted as either the factors represent poor, rather than good governance, or they represent good governance but our results are peculiar to our particular sample, time period, and/or performance measures. Regardless of their interpretation, we consider these factors to be most closely linked to unexpected performance:

- Managers respond to shareholder proposals within 12 months of shareholder meeting. (4 out of 5).
- Executive directors are not more than 75% of the elected directors including the Chief Executive. (4 out of 5).
- No former CEO serves on board (3 out of 5)
- The Board of Directors includes at least one independent outside director (3 out of 5).
- Shareholders vote on directors selected to fill vacancies. (4 out of 5).
- Board members are elected after every three years. (5out of 5).
- Policy exists requiring outside directors to serve on not more than ten additional boards (3 out of 5).
- Shareholders have cumulative voting rights to elect directors. (3 out of 5).
- A simple majority vote is required to approve a merger (not a supermajority). (4 out of 5).
- Shareholders may act by written consent and the consent is non-unanimous (3 out of 5).
- Company is not authorized to issue blank check preferred stock. (3 out of 5).
- All the members of the board have post graduate qualification (3 out of 5).
- No interlocks exist among directors on the compensation committee. (3 out of 5).
- All directors with more than one year of service own stock (3 out of 5).
- Officers' and directors' stock ownership is at least 1% of total shares outstanding (3 out of 5).
- Board has outside advisors (4 out of 5).
- Directors are required to submit their resignation upon a change in job status (4 out of 5).

Much of the literature that relates corporate governance to firm performance has focused on Tobin's Q. Yermack (1996); Bebchuk et al. (2004) identify six governance factors as being most highly associated with Tobin's Q. We confirm their results using 37 factors, showing that the structure of the board of directors is the most important factor for Tobin's Q. However, we also show that the board structure is significantly *negatively* related to most of our other performance measures. Firms with staggered boards have higher net profit margins, higher dividend.

4. 3. Multivariate Analyses

The evidence presented to this point is based on univariate analyses. We now provide multivariate evidence on the association between Gov-Score a Gov-Score and performance. We use Gov-Score, the log of the book-to-market ratio and the log of assets as control variables. Table 6 provides the results. Return on equity is positively related to the log of the book-to market ratio and the relationship is statistically significant. The relationship between return on equity and Gov-Score is positive but statistically insignificant. Net profit margin is positively related to Gov-Score but it is insignificant. The relationship between dividend yield and Gov-Score is positive and statically significant. Hence our results confirm a positive relationship between Gov-Score and performance measures. Firms with higher Gov-Scores have higher returns on equity, higher profit margins, are more valuable and pay out more cash dividends.

5. Summary and Concluding Remarks

We relate corporate governance to firm performance using 226 firms based on 37 corporate governance factors. We consider five performance measures from three categories: operating performance (return on equity, profit margin, and sales growth), valuation (Tobin's Q), and shareholder payout (dividend yield). The data related to governance factor is collected through a questionnaire based survey of the companies listed with Karachi Stock Exchange.

We create a broad summary measure of corporate governance, Gov-Score, which sums 37 corporate governance factors where each factor is coded 1 (0). The 37 factors cover seven governance categories: audit, board of directors, charter/bylaws, director education, executive and director compensation, ownership and progressive practices.

With the exception of Tobin's Q, all of our firm performance measures have their expected positive relation with Gov-Score and are significant in our correlation analysis (table 2), decile analysis (table 3), or both, suggesting that firms with relatively poor governance are relatively less profitable (lower return on equity and profit margin), less valuable (smaller Tobin's Q), and pay out less cash to their shareholders (lower dividend yield. We correlate each of our five firm performance measures with each of the seven governance categories. We find that the governance categories related to Audit and Board of Directors are highly associated with good performance while the governance categories related to director's education and charter/bylaws, least associated with good performance

We correlate each of the five firm performance measures with the 37 corporate governance factors. We find that the factors associated most often with good performance are: Audit committee consists solely of independent outside directors, Audit committee meets at least once every quarter of the year, Company has a formal policy on auditor rotation, all directors attended at least 75% of board meetings or had a valid excuse for non-attendance, size of board of directors is at least six but not more than 15 members, The CEO and chairman duties are separated or a lead director is specified, Shareholder approval is required to change board size , Stock incentive plans were adopted with shareholder approval, Directors receive all or a portion of their fees in stock. Directors are subject to stock ownership guidelines, Mandatory retirement age for directors exists, Performance of the board is reviewed regularly and Director Term limits exist.

We identify seven factors that are associated most often with bad performance, namely, Managers respond to shareholder proposals within 12 months of shareholder meeting, Executive directors are not more than 75% of the elected directors including the Chief Executive, No former CEO serves on board, The Board of Directors includes at least one independent outside director, Shareholders vote on directors selected to fill vacancies, Board members are elected after every three years, policy exists requiring outside directors to serve on not more than ten additional boards, A simple majority vote is required to approve a merger (not a supermajority), Board has outside advisors and Directors are required to submit their resignation upon a change in job status.

Anderson et al. (2004) show that the cost of debt is lower for larger boards, presumably because creditors view these firms as having more effective monitors of their financial accounting processes. We add to this literature by showing that firms with board sizes of between six and 15 have higher returns on equity and higher net profit margins than do firms with other board sizes

This paper provides insights on the association between audit-related governance factors and firm performance by showing that: (1) solely independent audit committees are positively related to dividend yield, return on equity and sales growth but not with net profit margin or firm valuation (2) company has a formal policy on auditor rotation is positively related to operating performance, firm valuation and dividend yield.

We close with some limitations. First, we construct Gov-Score by summing 37 governance classified in a binary manner, a procedure that is ad-hoc and that does not maximize the linkage between performance and governance. Nevertheless, our method is similar to that of GIM, who summed up 24 governance factors to derive their widely used G-Index. Second, we relate corporate governance to firm performance on a single calendar day so our results may not pertain to other points in time. Unfortunately, we have response only from 226 companies out of 700 companies listed with Karachi stock exchange. Third, we examined only five performance measures, If we selected other performance measures, we likely would find some changes in the factors we found to be most highly related to expected/unexpected performance. Fourth, governance is advocated for reasons aside from firm performance, such as fairness, equity, and appearance of propriety. Some factors we do not find to be related to firm performance may be important for other purposes. Finally, we associate corporate governance with firm performance, but our results do not necessarily imply causality.

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Appendices

Table 1. Descriptive Statistics of 37Corporate Governance Provisions (226firms)

	Audit	
1	Audit committee consists solely of independent outside directors	42.477
2	Audit committee meets at least once every quarter of the year	90.708
3	Company has a formal policy on auditor rotation	71.238
	Board of Directors	
4	Managers respond to shareholder proposals within 12 months of shareholder meeting.	84.071
5	All directors attended at least 75% of board meetings or had a valid excuse for non-attendance.	88.053
6	Executive directors i.e. working or whole time directors are not more than 75% of the elected directors	81.416
7	Size of board of directors is at least six but not more than 15 members.	85.841
8	No former CEO serves on board	61.504
9	The Board of Directors includes at least one independent outside director.	83.186
10	The CEO and chairman duties are separated or a lead director is specified.	73.894
11	Shareholders vote on directors selected to fill vacancies.	61.504
12	Board members are elected annually.	42.035
13	Shareholder approval is required to change board size.	75.221
14	Policy exists requiring outside directors to serve on not more than ten additional boards	77.876
15	Shareholders have cumulative voting rights to elect directors.	68.584
	Charter / Bylaws	
16	A simple majority vote is required to approve a merger (not a supermajority).	39.823
17	Shareholders are allowed to call special meetings.	67.256
18	A majority vote is required to amend charter/bylaws (not a supermajority).	73.893
19	Shareholders may act by written consent and the consent is non-unanimous.	61.947
20	Company is not authorized to issue blank check preferred stock.	74.778
21	Board cannot amend bylaws without shareholder approval or can only do so under limited circumstances.	83.186
	Director Education	
22	All the members of the board have post graduate qualification	66.814
23	Company encourages board members to attend professional training programs	81.858
	Executive and Director Compensation	
24	No interlocks exist among directors on the compensation committee.	73.451
25	Non-employees do not participate in company pension plans	70.354
26	Stock incentive plans were adopted with shareholder approval.	59.734
27	Directors receive all or a portion of their fees in stock.	36.730
	Ownership	
28	All directors with more than one year of service own stock.	61.947
29	Officers' and directors' stock ownership amounts to what % of total shares outstanding.	59.734
30	Executives are subject to stock ownership guidelines.	59.292
31	Directors are subject to stock ownership guidelines	65.487
	Progressive Practices	
32	Mandatory retirement age for directors exist.	41.593
33	Performance of the board is reviewed regularly.	83.186
34	A board-approved CEO succession plan is in place.	58.849
35	Board has outside advisors.	57.522
36	Directors are required to submit their resignation upon a change in job status.	60.177
37	Director term limits exist.	80.531

Table 2. Correlations of Gov- Score with Five Industry- adjusted Performance Measures

	Pearson	*Spearman*
ROE	0.061	0.042
NPM	0.0702	0.088
SG	-0.024	0.011
Q	-0.061	-0.202
DY	0.102	0.232

** Bold Values are statically significant

Table 3. Decile Means of Six Industry- adjusted Performance Measures

Decile	Gov Score	ROE	Gov Score	NPM	Gov Score	SG
1	**30**	8.262	32.318	0.297	32.318	0.206
2	28	6.845	30.577	0.175	30.577	0.126
3	27	7.331	29.602	0.450	29.603	0.179
4	26	7.947	28.822	0.384	28.822	0.198
5	25	7.373	28.168	0.335	28.168	0.369
6	24	8.235	27.603	0.251	27.603	0.467
7	23	9.172	27.076	0.245	27.076	0.906
8	22	8.734	26.491	-0.004	26.491	1.681
9	20	8.282	25.853	0.029	25.852	1.510
10	14	7.794	25.039	0.054	25.039	1.382

Decile	Gov Score	Q	Gov Score	DY
1	32.318	0.767	32.318	3.903
2	30.578	0.761	30.578	2.835
3	29.603	0.775	29.603	2.192
4	28.822	0.768	28.822	2.094
5	28.168	0.796	28.168	2.150
6	27.603	0.913	27.603	2.267
7	27.076	1.278	27.076	2.349
8	26.492	1.439	26.492	2.141
9	25.853	1.397	25.853	2.028
10	25.039	1.382	25.039	2.057

Table 4. Seven Categories Associated with the Five Industry- adjusted Performance Measures

	Return on Equity	Net Profit Margin	Sales Growth	Tobin's Q	Dividend Yield
Audit	0.171	0.048	0.116	-0.024	0.129
Board of Directors	-0.077	0.036	0.045	-0.024	-0.113
Charter / Bylaws	-0.050	-0.079	0.069	-0.006	-0.019
Director Education	-0.067	0.067	-0.074	-0.011	-0.004
Executive and Director Compensation	-0.008	0.005	0.064	-0.012	0.030
Ownership	0.097	0.042	-0.023	0.009	-0.016
Progressive Practices	0.027	0.046	-0.017	0.015	0.006

Table 5. Corporate Governance Measures Associated with the Six Industry- adjusted Performance Measures

	Return on Equity	Net Profit Margin	Sales Growth	Tobin's Q	Dividend Yield
Audit					
Audit committee consists solely of independent outside directors	0.107	-0.012	0.087	-0.098	0.078
Audit committee meets at least once every quarter of the year	0.109	-0.031	0.028	0.029	0.101
Company has a formal policy on auditor rotation	0.083	0.112	0.071	0.049	0.053
Board of Directors					
Managers respond to shareholder proposals within 12 months of shareholder meeting	-0.121	-0.015	-0.027	0.048	-0.057
All directors attended at least 75% of board meetings or had a valid excuse for non-attendance	-0.030	-0.024	0.029	0.029	0.033
Executive directorsare not more than 75% of the elected directors including the Chief Executive.	-0.004	-0.015	-0.005	0.027	-0.006
Size of board of directors is at least six but not more than 15 members	0.011	0.165	-0.457	0.044	-0.063
No former CEO serves on board	-0.072	-0.004	0.038	0.077	-0.033
The Board of Directors includes at least one independent outside director	-0.062	-0.019	0.021	-0.101	0.002
The CEO and chairman duties are separated or a lead director is specified.	0.053	-0.009	0.047	-0.102	0.041
Shareholders vote on directors selected to fill vacancies.	-0.001	-0.012	0.049	-0.121	-0.071
Board members are elected after every three years.	-0.135	-0.013	-0.088	-0.009	-0.054
Shareholder approval is required to change board size.	0.001	0.148	0.081	0.032	-0.119
Policy exists requiring outside directors to serve on not more than ten additional boards	0.044	-0.016	0.013	-0.074	-0.059
Shareholders have cumulative voting rights to elect directors	0.031	-0.016	0.049	-0.00241	-0.075
Charter / Bylaws					
A simple majority vote is required to approve a merger (not a supermajority	-0.058	-0.096	0.047	-0.056	-0.018
Shareholders are allowed to call special meetings.	0.019	-0.024	0.051	-0.002	-0.112
A majority vote is required to amend charter/bylaws (not a supermajority).	-0.108	-0.032	-0.011	0.074	-0.021
Shareholders may act by written consent and the consent is non-unanimous.	-0.021	-0.017	0.059	-0.035	0.043
Company is not authorized to issue blank check preferred stock.	-0.009	-0.019	-0.023	0.016094	0.029
Board cannot amend bylaws without shareholder approval or can only do so under limited circumstances	0.048	-0.019	0.036	-0.054	0.018

Director Education	Return on Equity	Net Profit Margin	Sales Growth	Tobin's Q	Dividend Yield
All the members of the board have post graduate qualification	-0.064	0.106	0.063	-0.051	-0.013
Company encourages board members to attend professional training programs	-0.006	-0.019	-0.204	0.037	0.031
Executive and Director Compensation					
No interlocks exist among directors on the compensation committee	-0.061	-0.084	-0.018	0.049	0.023
Non-employees do not participate in company pension plans	0.011	-0.033	0.050	0.038	-0.052
Stock incentive plans were adopted with shareholder approval	0.032	0.095	0.025	-0.138	0.098
Directors receive all or a portion of their fees in stock.	0.013	0.047	0.065	-0.008	0.032
Ownership					
All directors with more than one year of service own stock.	0.093	0.034	-0.041	-0.029	-0.035
Officers' and directors' stock ownership amounts to what % of total shares outstanding.	0.069	0.025	-0.028	-0.006	-0.034
Executives are subject to stock ownership guidelines.	0.025	0.039	-0.011	0.039	0.012
Directors are subject to stock ownership guidelines	0.107	0.042	0.076	0.083	0.042
Progressive Practices					
Mandatory retirement age for directors exist	0.017	0.065	0.098	0.087	0.104
Performance of the board is reviewed regularly.	0.051	-0.024	0.038	0.058	0.010
A board-approved CEO succession plan is in place.	0.042	0.125	-0.047	-0.023	0.037
Board has outside advisors.	-0.164	0.015	-0.098	-0.015	-0.138
Directors are required to submit their resignation upon a change in job status	0.092	-0.023	-0.075	-0.024	-0.002
Director term limits exist.	0.048	-0.021	0.037	0.019	0.022

Table 6. OLS Regressions of Five Industry- adjusted Performance Measures on Gov- Score and Controls

	Number of Observations	Intercept	Gov- Score	log (Assets)	log (B/ M)
Return on Equity	221	8.750	0.391	-1.819	5.723
	221	***0.832***	***1.287***	***-1.834***	***3.739***
Net Profit Margin	221	-0.299	0.041	-0.103	0.049
	221	***-0.178***	***0.857***	***-0.649***	***0.203***
Sales Growth	221	-2.438	-0.089	0.721	0.852
	221	***-0.289***	***-0.366***	***0.907***	***0.694***
Tobin's Q	221	3.106	-0.051	-0.073	0.258
	221	***1.304***	***-0.748***	***-0.325***	***0.745***
Dividend Yield	221	2.083	0.179	-0.735	2.037
	221	***0.699***	***2.082***	***-2.617***	***4.698***