BOARD COMPOSITION, EXECUTIVE REMUNERATION, AND CORPORATE PERFORMANCE: THE CASE OF REITS

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Abstract

This study strives to take an extra step to sharpen the comprehension of one aspect of agency theory as well as to extend previous research by examining the role of board of directors and managerial remuneration in enhancing corporate performance in the REITs industry. The main hypothesis in this study will be twofold. First, managerial remuneration is related to corporate performance. Second, the ratio of outside directors is related to corporate performance. This study will use a sample of REIT firms as of the end of 1996. The sample will consist of the actively traded REITs listed in the public stock exchanges. The final sample that meets all the criteria includes 167 REITs. The results indicate that there is a negative relationship between cash managerial remuneration and firm performance. Moreover, this study confirms a nonlinear relationship between board size and firm performance. The relationship is negative when board size is small, and it turns positive when board size grows.

Keywords: managerial remuneration, corporate performance, REITs, outside directors, board size

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1. Introduction

Stockholders in modern corporations are the residual risk bearers. As they don't have the expertise to run their firms, stockholders must rely on the firm's management team. Jensen and Ruback (1983) defined the management team as the top managers as well as the board of directors of the firm. The separation between ownership and control in the modern corporation creates the incentives for managers to pursue their self-interest goals and not to maximize the shareholders' wealth in what is termed in the literature as the agency conflict.

Researchers have suggested many mechanisms by which managers are curbed from maximizing solely their own utilities. These mechanisms (see Agarwal and Knoeber 1996) can be either external ones, such as market for corporate control or internal ones, such as the board of directors. The board of directors is a basic element of corporate governance. The main functions of corporate boards are evaluating and approving strategies formulated by managers, providing an appropriate vehicle for stock holders desiring representation in companies boards, and

performing vigorous monitoring of managers' actions to make sure that decisions by top managers come in line with shareholders' interests. It is worth mentioning that due to diffuse ownership, shareholders find it not feasible to practice monitoring and instead attempt to free-ride on others to monitor managers. Due to its monitoring role, the board of directors is an important tool to reduce agency costs and hence it has a direct impact on corporate performance through its main dimensions such as structure, size, and composition. The literature is rich with studies that have shown the positive effect of the outside board members on firm value (Chun et al. 1992; Cotter 1997; Bathal et al. 1995, to name a few). The theory says that the way a board of directors is formed is intended to minimize the agency conflict costs. Also, some studies have shown how the size of the board affects corporate value (Yermack 1996; Zahra et al. 1989; Eisenberg et al. 1998). Consequently, the board of directors is an important governance mechanism that ensures that the interests of shareholders and management are closely aligned, which would have its effects on corporate performance.

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In addition to the internal mechanisms that mitigate agency conflicts, managerial remuneration is an important device that can be used effectively to align the interests of stockholders and managers. The extent to which the remuneration package can achieve that alignment of interests is an empirical question. From a theoretical point of view, managerial remuneration should correlate weakly with corporate performance. The annual bonus usually is given in good as well as bad performance times. Good performance pushes the bonus up while bad performance does not depress the bonus. However, empirically, the relationship between management remuneration and corporate performance was detected and shown to exist. Generally, studies have found that there is a positive relation between managerial remuneration and corporate performance (Hamid 1995; Davis et al. 1994; Finnerty et al. 1993).

2. The research topic

This study strives to take an extra step to sharpen the comprehension of one aspect of agency theory as well as to extend previous research by examining the role of board of directors and managerial remuneration in enhancing corporate performance in the REITs industry.

3. Why to study the REITs industry

The unique governance and control structure of REITs, given the presence of an advisor as well as a sponsor of most REITs, might have effects on the outcomes when questioning the observed results in the literature. By way of illustration, there are some potential conflicts between REITs' shareholders and REITs' advisors, especially when advisors buy (sell) properties from (to) REITs under (above) market value. Also, Pfeffer (1972) documented that, for board composition, an optimal ratio exists for the outside directors that is related to superior financial performance, but that ratio differs from one industry to another. Thus, studying industries that have unique features such as REITs becomes imperative. The empirical work should not be replaced with the assumption of generalizing the obtained results in previous studies on all industries.

Moreover, Molz (1988) reviewed the prior research on the relationship between board composition and corporate performance and showed mixed results. One reason could be differences in the characteristics of the sample firms. As for managerial remuneration, most of the previous studies considered equity remuneration or total remuneration package and did not shed enough light on cash remuneration. Most firms report three types of executive remuneration to the SEC. Salary and bonus is the clearest accessible item, which is usually determined by a compensation committee that considers performance when determining the salary level. Usu-

ally, the base cash salary makes up about 80% of the remuneration packages of most business concerns (Mehran 1995). Gols (1993) documented that all REITs provide incentive remuneration, but the cash remuneration dominates as it is about 82 % of the total remuneration package. In addition, Ma (1996) documented significant differences in the managerial remuneration among the eight industries that composed his sample. So, concentrating on only REITs (one industry) might yield different results. Also, when limiting the sample to REITs industry, results will be less susceptible to the confounding cross-industry effects. This is confirmed by Barnhart et al. (1994).

Therefore, this study will focus only on cash remuneration of the CEO whose decisions are considered to be vital and significant on firms' values.

4. Previous studies and hypotheses development

Agency theorists have proposed many mechanisms by which agency conflicts can be lessened. Among these are the degree to which outside directors occupy the board of directors and managerial remuneration. The effectiveness of board of directors in controlling agency problems has been tackled in the finance literature using two main approaches.

The first has been to relate board composition to corporate performance.

The second has been to relate board composition to certain corporate events that have effects on shareholders' wealth, such as corporate acquisitions and greenmail payments.

The main hypothesis in this study will be twofold. First, managerial remuneration is related to corporate performance. Testing this hypothesis will shed light on a highly investigated issue in financial economics literature, which is the agent-principal relationship. The extent to which remuneration packages align the interests of principal (stockholders) and agent (managers) can be examined by investigating the relationship between remuneration package and a performance measure. If this relation were significantly positive, this would be consistent with the alignment of interests hypothesis (Jensen et al. 1983).

Second, the ratio of outside directors is related to corporate performance. This hypothesis refers to the quality of monitoring by outside directors. Usually, inside directors' careers are tied to the CEO, hence, insiders, from a pragmatic point of view, are in general unable or unwilling to criticize or remove the incumbent CEO.

So, the genuine monitoring should come from outside directors. In this paper, the focus will be on the role of the pure outside directors. Those are the directors who do not have any relation with the company on whose board they sit. The gray outsiders are the directors who have some sort of relation with the firm, so they are not expected to perform the same quality of monitoring as the pure directors do.

Managerial remuneration and corporate performance

The issue of managerial incentives has been heavily researched in financial economics. Managerial incentives, at least from a theoretical point of view, have an energetic effect on mitigating the moral hazard problem inherited in individual contracts. This would have a major impact upon firms' financial performance. Hamid (1995) examined the relationship between CEO compensation structure, ownership, and firm performance. He mainly focused upon the equity type of compensation not the cash compensation. His results confirmed a significant positive relationship between CEO equity compensation and firm performance.

Other types of compensation also have a positive effect on corporate performance even after considering some control variables. Davis and Shelor (1995) also documented a significant relationship between executive total compensation, firm size, and firm performance. Cannon and Vogt (1995) used Jensen's measure to proxy for REITs financial performance and examined how severe the agency costs in REITs are. They find that advisor REITs with low director ownership tend to underperform and pay higher advisor payments than do their counterparts with high ownership. They find no such relationship for self-administered REITs. These results show that self-administered REITs make better use of market-based performance compensation than do advisor REITs. Lewellen, Loderer, Martin, and Blum (1992) found that there is a significant relationship between managerial compensation and firm economic performance. Their results confirmed that compensation packages are designed to mitigate the agency conflict costs. In most previous studies, the relation between managerial remuneration and corporate performance was examined and shown to be positive when using total remuneration package, which includes usually (1) base cash remuneration, (2) incentive cash remuneration, (3) stock options, and (4) relative performance remuneration. This study, however, is concerned only with cash remuneration since it represents about 80% of total remuneration package. The unique features of REITs might have effects on the relationships observed in the literature. Based upon that, the following hypothesis will be tested:

H1: Firm financial performance is negatively related to the executive cash remuneration.

5. Board composition and financial performance

The issue of board composition has deep roots in financial economics literature. Whether the way board of directors is formed can affect the economic value and performance of a firm has been investigated by many researchers. The empirical evidence is not solidly convincing regarding this issue when considering the entire literature, although many empirical studies support a positive relationship between boards dominated by outside directors and corporate performance. Cotter, Shivdasani, and Zenner (1997) documented evidence showing the positive effect of the outside directors on corporate performance as they found that shareholders' gains from tender offers would be greater for targets with independent board members than for other targets. Rosenstein and Wyatt (1994) examined the wealth effects when an officer of one public corporation joins the board of directors of another corporation. They find that the nonfinancial sending firms experience negative returns while the receiving firms do not gain from these appointments. This suggests that when executives join boards of other corporations, they become distracted from shareholders wealth maximization objective. The financial sending firms experience positive returns when sending their officers to other firms. Barnhart et al. (1994) investigated the effect of board composition on company performance. When they do not control for variables that have effects on company performance, the relationship between corporate performance, proxied by market-to-book ratio of equity, and board composition is significant. When they account for managerial ownership and variation across industries, board composition is found to be related to market-to-book ratio in a nonlinear fashion. Lee, Rosenstein, Rangan, and Davidson (1992) revealed the effectiveness of the board of directors in enhancing firm performance by showing that stock prices of firms whose boards are dominated by independent directors are associated with larger abnormal returns than those of companies whose boards are dominated by less independent directors. Byrd and Hickman (1992) reviewed the literature and supported the conjecture of the positive relationship between corporate profitability and boards dominated by outside independent directors. Gilson (1990) also confirmed the idea that board composition is related to financial performance of firms as he documented an evidence that, after company default, board composition is altered significantly by creditors who tend to appoint their representatives to the board. Byrd and Hickman (1990) showed that the stocks of firms whose at least 50% of their board members are independent are associated with higher returns for stockholders in case of acquisitions. They noted, however, that these results are sensitive to the method used to classify directors. Rosenstein and Wyatt (1990) also showed that the addition of an outside director increased corporate value. In a theoretical paper, Zahra and Pearce (1989) developed a theoretical integrative model which specifies important relationships between board variables and company performance. They noted that these relationships depend on several internal (industry factors, legal aspects, etc.) and external (ownership structure, company life cycle, complexity of operation, etc.) contingencies identified in their model. All these attributes play an important role in determining directors' success in executing their control and monitoring roles, which is a prereq-

uisite for a glamourous company performance. Molz's (1988) findings do not support the association between firm performance and the managerial-dominated boards. Weisbach (1988) shows that companies with outside-dominated boards are more likely to replace a CEO based on performance than companies with insider-dominated boards. The bulk of the previous literature shows a positive relationship between outside directors and corporate performance. The premise that is brought up by this study is that effective monitoring does not come from all outside directors as hypothesized by some previous studies in the literature, but it comes only from that group of directors that is able to ask the hard questions. Previous literature in corporate governance classifies outside directors into two categories: gray outsiders and pure (independent) outsiders. The gray outsiders have some type of affiliation with the company on whose board they sit, which could limit their capability to exercise effective monitoring on management. These affiliations include legal, banking, consultancy, and other relationships. Pure outside directors, on the other hand, have no relationship with the company other than their directorship and, hence, bear no costs from challenging managers. Byrd and Hichman (1990) showed that the method of classifying board of directors causes the relationship between board composition and corporate performance to change. Based upon that, the following hypothesis is developed and to be tested:

H2: Firm performance is positively related to the ratio of the pure outside directors to total directors.

6. Board size and corporate performance

Theoretically, it is expected that coordination and communication will be more effective and decision-making problems will be less in relatively small boards, which might positively affect board performance. On the other hand, large boards have the tendency to include directors with diverse expertise and skills. These two contradicted premises deserve more inspection in the REITs industry due to their different control system. On top of that, there is a scarcity in the literature regarding studies of the relation between board size and corporate performance. This study conjectures that, in general, the ideal board size varies with firm size. Eisenberg, Sundgren, and Wells (1998) used accounting figures to measure firm performance. They found evidence that small boards had positive effects on corporate performance. Yermack (1996) adopted the point of view of a negative association between board size and performance. He founds an inverse relationship between the two variables. This suggests that the small size of a board of directors helps to improve the efficiency of the decision making process and, hence, promotes shareholders, interests. Brown and Maloney (1992) also found that smaller boards of directors are associated with better firm performance. Given that the previous studies have cross-sectionally examined many industries, the documented relationship might be altered when studying one industry with unique features regarding the control system. Based upon that, the following hypothesis is to be tested:

H3: The size of the board of directors is inversely related to the firm performance.

Table 1. A summary of the major empirical studies

Study	Major Issue	Major Findings
A.1. Cotter et al. (97)	Role of independent directors when a firm being a tender offer target.	Shareholders gains from a tender offer are positively related to the proportion of the independent directors.
A. 2. Yermack (96)	Small boards and corporate value	Small board of directors enhances firm value.
A. 3. Bathala et al. (95)	Board composition determinants	The proportion of outside directors depends on the existence of other agency conflict mitigating mechanisms.
A. 4. Barnhart et al. (94)	Board composition and corporate performance	The relation is nonlinear
A. 5. Lee et al. (92)	Shareholders' wealth and board composition in MBO transactions	In MBO transactions, shareholders wealth tend to be higher when independent directors dominate boards.
A. 6. Byrd et al. (90)	Shareholders' wealth in case of acquisition	The dominance of independent directors in boards tend to foster shareholders' wealth in the case of acquisition.
A. 7. Rosenstein et al. (90)	The wealth effects of appointing new outside directors	Adding an outside director results in increase in corporate value
A. 8. Weisbach (88)	Shareholders' wealth and board composition	After poor performance, CEOs of firms with outside-dominated boards have higher turnover than CEOs of firms with insider-dominated boards.
B. 1. Hamid (95)	Compensation structure and firm performance	Equity compensation and corporate performance are positively related
B. 2. Davis et al .(95)	Real estate performance and executive compensation	Positive relation between executive total compensation and performance of real estate firms
B. 3. Finnerty et al. (93)	Incentive schemes and agency conflict in REITs	Agency costs are lower for REITs that pay higher dividends
B. 4. Lewllen et al. (92)	Executive total compensation and performance	Firms that pay higher, perform better.

7. Methodology

The purpose of this study is to investigate the relationship between financial performance of REITs and both the composition of the board of directors and managerial incentives; that is, how the ratio of the pure outside directors (i.e., the independent outside directors) and executive remuneration would affect the financial performance of REITs.

Performance measure

The literature is filled with different types of financial performance measures. All these measures can be categorized as either accounting-based measures or market-oriented measures. Usually, accounting measures that are constructed from financial statements data are highly criticized in the finance community. This criticism is based on the grounds of the ability of firms' management to alter or "window-dress" these data. Also, these measures usually do not account for differences in systematic risk; hence, they diverge from the economic market value of firms (see Benston 1985). That is why financial analysts sometimes reclassify some balance sheet items in order to judge the precise liquidity of a firm. On the other hand, the market-based performance measures are determined solely and collectively by the market participants who interpret managers' signals correctly, assuming efficient financial markets, and usually firm managers have no discretion over these measures. Based upon that, and because the sample firms are publicly owned companies and hence their securities are priced in financial markets, this study will use a market-based financial performance measure to measure REITs' financial performance. Tobin's Q, as a market-based performance measure, represents a sharp measure of corporate value. Since it incorporates the value of all assets, it is supposed to reflect both the quality of monitoring practiced by pure directors and the degree to which shareholders' interests and those of managers are aligned, assuming that REITs' securities are priced in efficient capital markets. Tobin's Q can be defined as the ratio of the firm value to its assets replacement costs. The literature is filled with different versions of Tobin's Q. Since no consensus is reached as to the best Tobin's Q ratio, three different ratios of Tobin's Q will be used in this study. This procedure serves two purposes. The first is to test the sensitivity of the results to different definitions of corporate performance proxied by Tobin's Q. Second, the effect of employing different versions of Tobin's Q on the results of many different studies in the literature is partly resolved. The three versions of Tobin's Q employed in this study are as follows:

$$Q1 = \frac{MVE + TA - EQ}{TA} \quad 1$$

where MVE is the product of stock price (year close) by the common stocks outstanding

TA is total asset, and

EQ is the book value of equity.

$$Q2 = \frac{MVE}{BookValueofNetAssets} \quad 2$$

$$Q3 = \frac{MVE + LTD + STD + PSALV}{TA} \quad 3$$

Where LTD is the book value of long term debt.

STD is the book value of the short-term debt, and

PSALV is the preferred stock at liquidation value.

For the sake of illustration, the correlation among the three versions of Tobin's Q was calculated and was shown to be very high.[4] Therefore, it is expected to have similar results as far as our analysis is concerned.

Control variables

The relationship between financial performance and both managerial remuneration and board composition might be affected by some variables that are known to affect firm performance[5]. So, it is important to control for these variables. These variables are firm size and firm profitability. Firm size is noted in the literature to have a negative effect on firm performance. That is, small firms tend to have higher market values while larger firms tend to have lower market values. Since Tobin's Q is determined by the market, firm size should be included in the model. The logarithm of the book value of total assets is used to proxy for REITs' size. In addition, the accounting definition of financial performance affects, to some extent, investors believes about firm profitability which should influence Tobin's Q. Thus, REITs' accounting profitability, proxied by the logarithm of operating income, is included in the model.

Tests

To investigate whether executive remuneration has a significant association with corporate performance, the following regression model is developed:

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[1] This ratio is used in other studies like David Hyland (1997). Chung and Pruit (1994) use a comparable ratio of Tobin's Q that has about 96% correlation with Q of Lindenberg and Ross (1981).

[2] This measure also has been used by many. See, for example, Craswell et al. (1997). Also the correlation between this measure and that of Lindenberg and Ross (1981) is extremely high.

[3] This measure is used by many like Agarwal et al. (1996).

[4] The correlation between Q1 and Q2 is 98%; between Q1 and Q3 is 98%; and between Q2 and Q3 is 81%.

[5] There is an endless list of variables that have broad impact upon firm financial performance. However, since the list is endless and given the explanatory nature of this study, only some control variables that have direct impact on performance are employed here.

$Q = f \{CEO\ cash\ remuneration + control\ variables\}$

Cash remuneration will be used as independent variable since most previous studies have handled the effect of total package of remuneration on firm performance. This study suggests that only the pure outside directors are able to practice effective monitoring, and, hence, their role is more pronounced than that of all outside directors together, gray and pure. Thus, this study examines the effect of board composition on REITs performance by regressing Tobin's Q on the ratio of the pure outside directors.

$Q = f\ (\%\ pure\ directors + control\ variables).$

Also, it is intended to confirm the conjecture of this study that only pure directors can curb managers from maximizing their own agendas by including the gray directors and the total number of outside directors in the model. Again, the unique system of corporate governance of REITs is expected to render different results than what has been obtained in previ-

ous studies regarding the significance of outside directors' coefficient. In order to examine the effect of board size on REITs financial performance, the following regression is run:

$Q = f\ \{\#\ board\ members + control\ variables\}.$

Also, to investigate the possibility of a curvilinear relationship between REITs performance and board size, the following piecewise regression is run:

$Q = f\ \{directors =< 5 + 5 < directors =< 7 + directors > 7 + control\ variables\}.$

Directors' classification

The procedure that is followed in this study to classify directors is comparable in framework to that of Gilson (1990). That is, there are three categories for directors -- insiders, gray outsiders, and pure outsiders. These are explained in table 2.

Table 2. Directors classifications

Category	Affiliation
Inside Directors	Corporate Officers
Gray Outside Directors	Lawyers affiliated with the firm
	Lenders of the company
	Relatives of managers
	People doing business with the firm
	Investment banks
	Consultants
Pure Outside Directors	Private investors/blockholders
	Academics
	Managers of unaffiliated lenders
	Independent business people

Data

This study will use a sample of REIT firms as of the end of 1996. The sample will consist of the actively traded REITs listed in the public stock exchanges. All sample REITs should have enough COMPUSTAT data to draw the proposed analysis. All accounting and market data are gathered from

COMPUSTAT tapes. Proxy statements filed in compliance with the Securities Exchange Act of 1934 will be used to obtain all data concerning managerial remuneration of CEOs as well as the ownership of inside and outside directors. The analysis will focus on 1996. The final sample that meets all the criteria includes 167 REITs. Table 3 contains some descriptive statistics about the sample characteristics.

Table 3. Descriptive statistics of the sample REITs

Variables	Mean	Median	Maximum	Minimum	Skewness
Q1	1.32	1.28	2.98	0.56	1.6
Q2	0.78	0.74	2.47	0.05	1.07
Q3	1.25	1.22	2.89	0.54	1.68
MVE	455867160	296780500	3003156000	3714960	2.09
Leverage	0.45	0.43	.85	0	0.01
PURDIR	4.39	4	9	1	0.5
NODIR	7.05	7	12	2	0.15

Table 3 continued

OUTDIR	5.32	5	11	2	0.37
NI	21446240	1127000	157976000	-27274000	2.22
TA	649981000	378527000	10157296000	5674000	5.56
Remuneration	320172.8	261839	1786165	500	2.69

Notes

Q = Tobin's Q, MVE = Market Value of Equity, Leverage = Debt / Assets, PURDIR = Number of Pure Directors
NODIR = Number of Directors, OUTDIR = Outside directors, NI = Net Income, TA = Total Assets

The table shows that most REITs are valued at premium given their Tobin's Q values. The number of directors is relatively small compared to those in other studies (see for instance, Rosenstein and Wyatt 1990, Yermack 1996). Although the data used in the analysis are cross-sectional and hence multicollinearity in not a concern, but as an informal test, the correlation among all variables was calculated and was shown to be low. The Skewness coefficient indicates a substantial amount of positive Skewness, which means, in the light of the figures, that most REITs have higher market values and higher profitability and provide a higher amount of cash salary than the average REIT. It seems that some REITs use no debt financing while the highest debt level is 85 %. It is clear that the higher a REITs' Tobin's Q is, the higher its net income and vice-versa.

Regression results: cash remuneration and REITs financial performance

Empirical studies have shown that the total package of managerial remuneration enhances firm value. This study is concerned only with managerial cash remuneration as no previous study has paid direct attention to it. To test the relationship between managerial cash remuneration and corporate performance of REITs, the following regression model is run:

Tobin's Q = f { CEO remuneration, size, net income }.

Table 3 shows the results of testing how managerial remuneration affect corporate performance after controlling for some variables. Since we have a cross-sectional data, hetroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix. Regressions 1, 2, and 3 are run with control variables for comparison purposes. All these regressions have high explanatory power in the light of the prob (F-statistic). The control variables

have the correct sign and significant. REITs size is significantly negative, which supports the size anomaly literature, while the REITs profitability coefficient is significantly positive as expected. Regressions 4, 5, and 6 add the log (salary) to test its contribution in affecting REITs performance. Model 4 shows that the managerial remuneration coefficient has no explanatory power in light of a P-value of about 16%. Both of the control variables are significant and retain their correct signs. The adjusted R-square, 14%, is not different from that of model 1, 13%. Model 5, which employs Q2, shows that managerial remuneration has a significant negative effect upon REITs performance. That is, the coefficient estimate implies that REITs performance decline by about 7% for every $1000 increase in cash remuneration.

Considering the results of table 4, it seems that there is very weak evidence of the negative impact of managerial remuneration on REITs performance. Only one regression model, model 5, shows the significant effect of managerial remuneration on REITs performance. The negative effect of managerial remuneration on REITs financial performance shown by this particular regression is due to the fact that cash remuneration is deducted from firm profits. Also, REITs' managers can expropriate wealth and value from stockholders through high cash salaries (some REITs compensations' committees are extremely generous when setting managerial cash remuneration). This is supported by Mehran (1995) as he found the same inverse relationship between cash remuneration and financial performance, although he was mainly investigating the effect of equity remuneration on financial performance for industrial companies. Also, it was suggested by Jensen and Murphy (1990) that cash remuneration (salary +annual bonus) is not the correct form of remuneration that gives managers the incentive to maximize firm value. The evidence that is found in this study provides direct support to this point of view.

Table 4. The impact of managerial remuneration on REITs performance

Dependent Variable	Q1	Q2	Q3	Q1	Q2	Q3
Intercept	1.1794	1.9069	1.2794	1.2542	2.0878	1.3495
	(.0034)	(.0004)	(.0012)	(.0009)	(.0001)	(.0003)
log(Salary)				-.02995	-.0723	-.0281
				(.1634)	(.0204)	(.184)

Table 4 continued

log(TA)	-.228	-.2862	-.248	-.2062	-.2334	-.2276
	(.0024)	(.0004)	(.0006)	(.0088)	(.0031)	(.0027)
log(OI)	.2736	.2661	.2871	2.656	.2467	.2796
	(.0002)	(.0005)	(.0001)	(.0004)	(.0012)	(.0001)
Adjusted R-Square	.13	.08	.14	.14	.11	.15
R-Square	.15	.09	.15	.16	.13	.16
Prob(F-Statistic)	(.0000)	(.0007)	(.0000)	(.0000)	(.0000)	(.0000)

Notes

Numbers in parentheses are probability values testing the hypothesis that coefficients are zero. Salary = Salary + Annual bonus, TA = Book value of total assets, OI = Operating Income, Q1, Q2, and Q3 are defined previously.

Considering the results of table 4, it seems that there is very weak evidence of the negative impact of managerial remuneration on REITs performance. Only one regression model, model 5, shows the significant effect of managerial remuneration on REITs performance. The negative effect of managerial remuneration on REITs financial performance shown by this particular regression is due to the fact that cash remuneration is deducted from firm profits. Also, REITs' managers can expropriate wealth and value from stockholders through high cash salaries. Some REITs compensations' committees are extremely generous when setting managerial cash remuneration. This is supported by Mehran (1995) as he found the same inverse relationship between cash remuneration and financial performance, although he was mainly investigating the effect of equity remuneration on financial performance for industrial companies. Also, it was suggested by Jensen and Murphy (1990) that cash remuneration (salary +annual bonus) is not the correct form of remuneration that gives managers the incentive to maximize firm value. The evidence that is found in this study provides direct support to this point of view. In addition, the same inverse relationship between cash remuneration and financial performance is documented by Davis and Shelor (1995) for real estate sector although they use accounting measures for corporate performance. So, based on the wealth expropriation premise, it seems that investors penalize companies whose CEOs are receiving relatively high cash remuneration as this type of remuneration has negative effect upon corporate profitability.

Table 5 repeats the same analysis as in table 4 but replaces operating income, profitability level, with return on assets (ROA), return on equity (ROE), and operating return on assets (OROA). The first three regressions were run considering ROA. Regressions 1 and 3 failed to detect any significant impact of managerial remuneration on REITs performance. Also, the control variables have no explanatory power in terms of their P-values. Regression 2, however, shows the cash salary to have a negative impact upon REITs performance. When ROE is employed in regressions 4, 5, and 6, the whole picture changes. Managerial remuneration coefficient becomes significantly negative. ROE is also positive and significant as expected, but REITs size is significant and has incorrect sign in models 4 and 6 and is insignificant in model 5. Employing OROA as a control variable in the last three regressions yields results similar to those in regressions 1, 2, and 3, in terms of the significance of the coefficients. That is, only regression 8 shows a significant and negative impact of cash salary on the financial performance of REITs. In sum, this table provides weak evidence of the negative effect of managerial remuneration on REITs performance.

Table 5. The impact of managerial remuneration on REITs performance

Dep. Var.	Q1 1	Q2 2	Q3 3	Q1 4	Q2 5	Q3 6	Q1 7	Q2 8	Q3 9
Intercept	0.7521	1.5664	.6818	.9028	1.6368	.828	.7486	1.477	.6676
	(.0288)	(.0001)	(.0438)	(.006)	(.0001)	(.0106)	(.0298)	(.0005)	(.0509)
log(Salary)	-.0322	-.0611	-.0279	-.0397	-.0823	-.0381	-.0347	-.0788	-.0325
	(.1664)	(.0193)	(.2069)	(.0564)	(.0016)	(.0633)	(.1212)	(.0042)	(.144)
log(TA)	.048	-.0048	.0451	.0446	.0062	.0439	.0483	.0115	.0474
	(.268)	(.8334)	(.0206)	(.0152)	(.7841)	(.0156)	(.151)	(.6321)	(.166)
ROA	.9977	1.9659	1.2178						
	(.1224)	(.0001)	(.0008)						
ROE				.5103	.4997	.5387			
				(.0001)	(.0001)	(.0001)			
OROA							.9119	.7855	.9928
							(.0114)	(.0721)	(.0057)

Table 5 continued

Adj. R-Square	.09	.16	.11	.18	.14	.2	.08	.07	.09
R-Square	.11	.18	.13	.2	.15	.21	.1	.08	.11
Prob(F-Statistic)	(.0004)	(.0000)	(.0001)	(.0000)	(.0000)	(.0000)	(.0007)	(.0026)	(.0004)

Notes

Numbers in parentheses are probability values testing the hypothesis that coefficients are zero.
Salary = Salary + Annual bonus, -- TA = Book value of total assets, -- ROA = Return on Assets
ROE = Return on Equity, -- OROA = Operating Income/Total Assets, -- Q1, Q2, and Q3 are defined previously.

Board composition and REITs performance

The analysis conducted in this study differs from that in previous studies in showing the impact of the pure outside directors on a firm's financial performance. This study strives to support the premise that it is not the quantity of monitoring that matters, but it is the quality of monitoring that should be considered. This is accomplished by focusing only on the impact of the pure outside directors who have no relation whatsoever with the company other than sitting on the board of directors. Consequently, it is expected that they are the only group that can practice more effective monitoring and have the ability to control the agency problem. This impact can be detected by examining the relation between pure outside directors and firm financial performance.

In table 6 (since we have a cross-sectional data, hetroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix), for comparison, we start with regressions using only control variables. The three regression models show the same results regarding the expected sign and the significance level of the control variables. REITs size has an inverse relation with corporate perform-ance, which supports the size anomaly literature. Also, REITs accounting profitability has a significant positive effect upon their performance. Regressions 4, 5, and 6 add both the proportion of pure directors (PP) and the outside directors to examine their relation to REITs performance. All these regression models show the PP to be significantly positive as expected. For example, model 4 shows that REITs performance would increase by about 43% if PP increased by 1%. The coefficients of PP in all these models are similar. Also, these regression models have an improved adjusted R-square relative to the first three regressions, which shows the significant effect of PP on REITs performance. Byrd and Hichman (1990) found that the relationship between financial performance and board composition is affected to some extent by the different definitions used to classify outside directors as monitors to firm management. To test the sensitivity of the results to this conjecture and to compare the results to similar procedures in previous studies, regressions 4, 5, and 6 included the number of outside directors besides PP. These regressions showed no relation between financial performance and the outside directors variable. The coefficient of OUTDIR is totally insignificant and is not different from zero.

Table 6. The impact of monitoring by pure directors on REITs performance

Dep. Var.	Q1 1	Q2 2	Q3 3	Q1 4	Q2 5	Q3 6	Q1 7	Q2 8	Q3 9
Intercept	1.1794	1.9069	1.2794	.9326	1.5772	1.0023	.9083	1.5997	.9949
	(.0034)	(.0004)	(.0012)	(.0179)	(.0023)	(.0087)	(.0183)	(.002)	(.008)
PP				.4331	.4852	.4518	.4245	.4931	.4492
				(.0019)	(.0049)	(.0008)	(.0017)	(.0049)	(.0007)
OUTDIR				.0064	-.0059	.0019			
				(.6246)	(.7519)	(.8823)			
Log(TA)	-.228	-.2862	-.248	-.2343	-.2899	-.253	-.23005	-.2934	-.2518
	(.0024)	(.0004)	(.0006)	(.0014)	(.0001)	(.0003)	(.0014)	(.0001)	(.0003)
Log(OI)	.2736	.2661	.2871	.2802	.2768	.2948	.2795	.2775	.2945
	(.0002)	(.0005)	(.0001)	(.0001)	(.0001)	(.0001)	(.0001)	(.0001)	(.0001)
Adj. R-Square	.13	.08	.14	.18	.12	.2	.19	.12	.2
R-Square	.15	.09	.15	.2	.14	.22	.2	.14	.22
Prob(F-Statistic)	(.0000)	(.0007)	(.0000)	(.0000)	(.0000)	(.0000)	(.0000)	(.0000)	(.0000)

Notes

Numbers in parentheses are probability values testing the hypothesis that coefficients are zero.
PP = The ratio of pure directors to total directors, OUTDIR = The number of outside directors
TA = Total assets, OI = Operating Income, Q1, Q2, and Q3 are defined previously

This result is robust to the control variables as shown in the table. These results contradicted those documented by Rosenstein and Wyatt (1990) and by Weisbach (1988). The control variables, however, are significant and have the expected sign and conform to both those in the literature as well as those in regressions 4, 5, and 6. This result also confirms that it is the quality of monitoring that matters not the quantity. Also, in unreported regressions, the number of gray directors was used alone as well as with control variables and also with the number of pure directors. The coefficient of the gray directors is insignificant in all these regressions while the pure director's coefficient was significant. This finding is supported by Molz (1988). Moreover, these unreported results confirm a conjecture in the literature that due to some type of affiliation with the company, gray directors have limited ability to exercise an effective monitoring on management (see Cotter et al. 1997; Lee et al. 1992; Brown et al. 1992; and Byrd et al. 1990). Regressions 7, 8, and 9 are similar to models 4, 5, and 6 but exclude only the outside directors to examine the effect of PP alone. These regressions also give the same results regarding the positive effect of PP on REITs performance.

These results support the few studies in the literature that report a positive relationship between pure directors and corporate performance. Cotter et al. (1997), Lee et al. (1992), Brown et al. (1992) all support the conjecture that pure directors enhance firm value. The results also support the conjecture, which is adopted in this study, that it is not the quantity of monitoring that matters, but the quality, which is supposed to come solely from the pure directors.

In sum, using Q1, Q2, and Q3 yields the same results regarding the statistical significance of the variables. All regressions, 1-9, have high explanatory power given a prob (F-statistic) of zero for these regressions. The highest adjusted R-square is for regression 7, which is as high as 19%. So, using different versions of Tobin's Q affected only the magnitude of the coefficients but not the statistical significance. This is expected given the different variables used in each formula used to calculate Tobin's Q.

The results may be driven to some extent by the nature of the control structure of REITs where the presence of an advisor in some of the REITs' control structures leads to some agency conflicts, especially when a financial transaction occurs between a REIT and its sponsor.

The above results concerning the relation between REITs' performance and the monitoring of management by the board of directors send a crystal-clear message. That is, only the quality of monitoring relates to good financial performance. Since the pure outside directors have no relation with the companies on whose board they sit and, hence, bear no costs from challenging management by asking the difficult questions, it makes more sense to see a positive relationship between the number of pure directors and financial performance. As Fama and Jensen (1983) noted, pure outside directors are motivated by maintaining their reputational capital as corporate experts by being effective monitors. This should lead to better decisions. Hence, investors' confidence in management and their willingness to invest would increase. All this has positive effects upon corporate value as represented by Tobin's Q. This premise is confirmed by many researchers. (see, for example, Byrd and Hickman 1992; Lee, Rosenstien, Rangan, and Davidson 1992).

In order to test the sensitivity of the results to changes in the control variables, table 6 resembles table 5 except the profitability measure is replaced by three other measures. These are return on assets (ROA), return on equity (ROE), and operating return on assets (OROA). The results have changed dramatically in terms of the significance of the results. The variable of pure directors is no longer significant in all regressions except in models 4 and 8. The outside directors coefficient is still insignificant. The new control variables are all significantly positive, as expected. Thus, it can be inferred that the choice of the control variables critically affects the results of testing the hypothesis that only pure directors are effective in monitoring. Consequently, the results of table 6 should interpreted with caution.

Table 7. The impact of monitoring by pure directors on REITs performance

Dep. Var.	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
	1	2	3	4	5	6	7	8	9
Intercept	.441	.7147	.3508	.5241	.593	.4151	.3651	.4332	.2449
	(.2774)	(.2051)	(.391)	(.226)	(.3089)	(.2931)	(.6365)	(.3782)	(.5402)
PP	.4533	1.4063	.4871	.4809	1.5598	.5305	.6122	1.6894	.6687
	(.4042)	(.1112)	(.3404)	(.0376)	(.1047)	(.2968)	(.2599)	(.0114)	(.2149)
OUTDIR	.0112	.0191	.0026	.0053	.0103	-.004	.0148	.0197	.0059
	(.534)	(.3812)	(.8441)	(.6972)	(.6639)	(.7554)	(.4143)	(.3732)	(.7395)
Log(TA)	.0368	-.0162	.0398	.0337	-.0075	.0379	.0367	-.0043	.0413
	(.507)	(.4891)	(.0355)	(.944)	(.7491)	(.0353)	(.521)	(.8528)	(.208)
ROA	1.0991	2.0912	1.2737						
	(.0025)	(.0383)	(.0711)						
ROE				.5182	.5126	.5465			

				(.0001)	(.0001)	(.0001)			
OROA							1.0403	1.0117	1.0802
							(.0039)	(.0206)	(.0025)
Adj. R-Square	.08	.16	.1	.16	.12	.19	.07	.05	.08
R-Square	.1	.18	.12	.18	.14	.21	.09	.08	.1
Prob(F-Statistic)	(.0022)	(.0000)	(.0003)	(.0000)	(.0000)	(.0000)	(.0032)	(.012)	(.0013)

Notes

Numbers in parentheses are probability values testing the hypothesis that coefficients are zero.

PP = The ratio of pure directors to total directors, OUTDIR = The number of outside directors

TA = Total assets, ROA = return on Assets, ROE = Return on Equity, OROA = Operating Income/Total Assets, Q1, Q2, and Q3 are defined previously

Board size and REITs performance

The last issue concerns the relationship between board size and financial performance. A glance at the literature reveals the inconclusiveness of this issue. For example, Yermack (1996) found an inverse relationship between board size and industrial firms' performance represented by Tobin's Q. On the other hand, Zahra and Pearce (1989) reviewed some studies and showed a positive relationship between board size and corporate performance. A recent paper by Eisenberg et al. (1998) also confirmed an inverse relationship between board size and corporate performance. Each of those competing results supported their respective ideas using different premises. One says that larger boards are assumed to have more diverse skills and expertise as well as more outside directors' representation; so this should be translated into better performance. The other says that larger boards are associated with the higher costs of slower decisions, communications and coordination problems, and biases against risk taking.

In order to test these two competing arguments, REITs performance is regressed with the number of directors, a board size proxy. The results are contained in table 8 (Since we have a cross-sectional data, Hetroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix). The first three regressions use only control variables for comparison purposes. The results of the first three regressions are analogous to the first three regressions in table 3. As can be observed, both control variables are significant and the joint hypothesis of all coefficients being zero is rejected. Regression models 4, 5, and 6 add board size besides control variables. In all these models, the variable of interest, the board size, has no effect on REITs' performance given its very high p-value. So, this test has failed to detect any effect of board size upon REITs' performance. The control variables are significant and have the expected sign. REITs size has a negative effect on its performance. The level of REITs profitability has, as expected, a positive effect on REITs' performance. These results are inconsistent with those of Yermack (1996), Eisenberg et al (1998), and Brown and Maloney (1992), who document a negative relationship between board size and corporate performance for industrial companies.

Table 8. The effect of board of directors' size on REITs' performance

Dependent Variable	Q1	Q2	Q3	Q1	Q2	Q3
Intercept	1.1794	1.9069	1.2794	1.1716	1.8404	1.2512
	(.0034)	(.0004)	(.0012)	(.0043)	(.0005)	(.0017)
NODIR				-.0016	-.0138	-.0059
				(.9022)	(.4526)	(.6516)
log (TA)	-.228	-.2862	-.248	-.2276	-.2823	-.2464
	(.0024)	(.0004)	(.0006)	(.0024)	(.0004)	(.0006)
log (OI)	.2736	.2661	.2871	.2742	.2713	.2893
	(.0002)	(.0005)	(.0001)	(.0003)	(.0005)	(.0001)
Adjusted R-Square	.13	.08	.14	.13	.07	.14
R-Square	.15	.09	.15	.15	.09	.15
Prob(F-Statistic)	(.0000)	(.0007)	(.0000)	(.0000)	(.0018)	(.0000)

Notes

Numbers in parentheses are probability values testing the hypothesis that coefficients are zero.

NODIR = Number of directors, TA = Book value of total assets, OI = Operating Income

Q1, Q2, and Q3 are defined previously

In table 8, operating income was used as a proxy for REITs profitability. To see whether the results are sensitive to different definitions of profitability, table 8 contains regressions that are similar to those of table 7, but with different proxies of profitability. These proxies are return on assets (ROA), return on equity (ROE), and operating return on assets (OROA). As can be observed in table 9, the results are exactly the same as those in table 8 in terms of the statistical significance of the variable of interest, board size. All the control variables across all regression models are significant. REITs' size become insignificant in all regressions except in models 6 and 9. So, the results in this table confirm what has been documented in table 7 that board size has no impact on REITs financial performance.

Table 9. The effect of board of directors' size on REITs' performance

Dep. Var.	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
Intercept	.6503	1.3021	.6588	.7408	1.2353	.6448	.6262	1.1196	.5255
	(.0793)	(.0026)	(.0988)	(.0459)	(.0045)	(.0581)	(.0644)	(.0079)	(.1176)
NODIR	.0059	-.0065	-.001	.002	-.0136	-.0056	.004	-.0115	-.0034
	(.65)	(.6944)	(.9355)	(.8678)	(.4437)	(.6369)	(.7681)	(.4969)	(.8018)
log (TA)	.0305	-.0276	.0335	.0271	-.0202	.0312	.0309	-.0164	.0351
	(.1271)	(.2136)	(.0698)	(.1667)	(.3598)	(.0785)	(.1035)	(.4843)	(.063)
ROA	1.1277	2.1771	1.3181						
	(.0814)	(.036)	(.0641)						
ROE				.5216	.5244	.5501			
				(.0001)	(.0001)	(.0001)			
OROA							1.0279	1.0298	1.0948
							(.004)	(.0192)	(.002)
Adj. R-Square	.08	.13	.1	.16	.08	.18	.07	.02	.08
R-Square	.09	.15	.12	.18	.1	.2	.09	.03	.1
Prob(F-Statistic)	(.001)	(.0000)	(.0001)	(.0000)	(.0005)	(.0000)	(.0021)	(.0932)	(.001)

Notes

 Numbers in parentheses are probability values testing the hypothesis that coefficients are zero.

 NODIR = Number of directors, TA = Book value of total assets, ROA = Return on Assets

 ROE = Return on Equity, OROA = Operating Income/Total Assets, Q1, Q2, and Q3 are defined previously

Board size and financial performance: another look

The inconclusive findings of some studies regarding the relationship between firm performance and board size should be investigated further. In this study, it is hypothesized that there might be a tendency for a curvilinear relationship between firm performance and board size. Previous studies have neglected the possibility that the relation is nonlinear. Therefore, a piecewise regressions that allow for two changes in slope coefficients of board size are gainfully employed to examine this issue. The piecewise regression is received more favorably than a dummy variable regression since we have more than one linear piece or segment at which a threshold could be determined a priori. It should be noted, however, that the goal here is to find a parsimonious design to characterize any pattern in regression results.

To estimate the piecewise regression, the following variables are steered:

ND1 = number of directors if directors < 5.

  = 5 if directors are >= 5

ND2 = 0 if directors are < 5;

  = number of directors – 5 if 5 =< number of directors < 7;

  = 6 if directors >= 7;

ND3 = 0 if directors < 7;

 = number of directors – 7 if directors >=7.

In other words, there are two knots for the piecewise regression at which the slopes are expected to change significantly. These are 5 and 7. These figures are not theoretically supported but rather are arbitrarily defined for testing any nonlinearity. The logic was applied in some studies that used the piecewise regression models. The researcher has full discretion upon the starting knots.

Table 10 shows the results of the piecewise regression models (Since we have a cross-sectional data, hetroscedasticity was found to be significant. And since it is of unknown form, it was corrected by using White's (1980) consistent covariance matrix). For comparison purposes and to detect the significance of the effect of board size, the first three regressions used only control variables. The first three regressions show the control variables to be significant and have the correct sign as expected. Regressions 4, 5, and 6 show the coefficient of board of directors with less than 5 members (ND1) is significant and negative considering all versions of Tobin's Q and whether REITs size and profitability are controlled for or not. However, for other directors' cells, between 5-7 (ND2) and over 7 (ND3), the coefficient is insignificant.

Table 10. Piecewise regressions show the effect of board size on REITs' performance

Dep. Var.	Q1	Q2	Q3	Q1	Q2	Q3
Intercept	1.1794	1.9069	1.2794	1.6283	2.9309	1.704
	(.0034)	(.0004)	(.0012)	(.0001)	(.0001)	(.0001)
ND1				-.1311	-.3156	-.1335
				(.0043)	(.0001)	(.0019)
ND2				.0065	.0204	.0057
				(.5443)	(.1204)	(.5856)
ND3				.0189	.0188	.0132
				(.2935)	(.4413)	(.465)
log(TA)	-.228	-.2862	-.248	-.2157	-.2541	-.2345
	(.0024)	(.0004)	(.0006)	(.0054)	(.0018)	(.0015)
log(OI)	.2736	.2661	.2871	.2679	.253	.2826
	(.0002)	(.0005)	(.0001)	(.0006)	(.0016)	(.0001)
Adj. R-Square	.13	.08	.14	.16	.2	.17
R-Square	.15	.09	.15	.19	.23	.19
Prob(F-Statistic)	(.0000)	(.0007)	(.0000)	(.0000)	(.0000)	(.0000)

Notes

Numbers in parentheses are probability values testing the hypothesis that coefficients are zero.

TA = Book value of total assets, OI = Operating Income, ND1= Directors <= 5, ND2= 5< Directors<=7.

ND3= Directors > 7, Q1, Q2, and Q3 are defined previously.

The results in table 10 confirm some sort of nonlinearity between board size and financial performance. Also, these results are robust regarding their statistical significance even after allowing for slopes to change at other inflection points (Other knots were used such as 3 and 5 and the same results were obtained regarding the negative relationship between small board size and firm performance and this relation turns to be positive when board members increase). That is, the smaller board size has a negative effect on firm performance, and the impact turns to a positive one when board size grows. The results of this section are contrary to those obtained by Yermack (1996) and Brown and Maloney (1992), who found a negative relationship between board size and corporate performance. The contradiction in results may be due to the unique governance system of REITs. In addition it should be noted that Yermack's sample consisted of Fortune's 500 industrial firms whose boards have from six to 24 members while the largest board in REITs consists of 12 members (table 2). Furthermore, Yermack found no consistent association between firm performance and board size for board sizes below six. On top of that, Yermack recognizes that because his sample was biased toward large firms, it is inappropriate for examining small boards.

The results of this section also contradict those of Eisenberg et al. (1998), who documented a significant linear negative relationship between firm performance and board size.

To corroborate the results, other profitability measures have been used in table 11. These measures are return on assets (ROA), return on equity (ROE), and operating return on assets (OROA). The results of this table confirm what has been documented in the previous test of nonlinearity of the relationship between board size and REITs performance. All regression models in table 11 confirm a negative relationship between a board size of less than 5 directors and REITs financial performance. This relation becomes positive, although insignificant in most models, when board size increases. Employing the new control variables causes REITs' size to be insignificant at all regressions.

Table 11. Piecewise regressions show the effect of board size on REITs performance

Dep. Var.	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
Intercept	1.1009	2.3126	.9993	1.2815	2.4662	1.1868	1.1462	2.3286	1.0449
	(.0051)	(.0001)	(.0098)	(.0007)	(.0001)	(.0013)	(.0036)	(.0001)	(.0075)
ND1	-.1125	-.2695	-.1136	-.1326	-.3194	-.1399	-.1286	-.3175	-.1354
	(.0415)	(.0001)	(.037)	(.0095)	(.0001)	(.0056)	(.0178)	(.0001)	(.0121)
ND2	.0085	.018	.0059	.0129	.0236	.0107	.0097	.0206	.0073
	(.4555)	(.1609)	(.6028)	(.2342)	(.0677)	(.3158)	(.3966)	(.1247)	(.5185)
ND3	.0238	.0241	.0166	.01468	.0152	.0069	.0226	.0229	.0154
	(.2736)	(.3217)	(.4374)	(.4767)	(.5364)	(.7318)	(.2979)	(.3683)	(.4766)

Table11 continued

log(TA)	.0352	-.0189	.0378	.0299	-.0142	.0038	.0352	-.0079	.0391
	(.604)	(.3677)	(.414)	(.8084)	(.497)	(.5015)	(.606)	(.7158)	(.0357)
ROA	.948	1.7815	1.1464						
	(.0091)	(.0001)	(.0015)						
ROE				.5042	.4845	.5327			
				(.0001)	(.0001)	(.0001)			
OROA							.9161	.7773	.9832
							(.0095)	(.0596)	(.0051)
Adj. R-Square	.1	.22	.12	.19	.21	.21	.09	.15	.11
R-Square	.13	.25	.14	.22	.24	.23	.12	.17	.13
Prob(F-Statistic)	(.0006)	(.0000)	(.0001)	(.0000)	(.0000)	(.0000)	(.0006)	(.0000)	(.0003)

Notes

Numbers in parentheses are probability values testing the hypothesis that coefficients are zero.

ND1= Directors <= 5, -- ND2= 5< Directors<=7.

ND3= Directors > 7, TA = Book value of total assets, ROA = Return on Assets

ROE = Return on Equity, OROA = Operating Income/Total Assets, Q1, Q2, and Q3 are defined previously.

8. Conclusion

This study has investigated the effect of the composition of the board of directors (a monitoring mechanism) and managerial remuneration (bonding mechanism) on the corporate performance of REITs. The results indicate that there is a negative relationship between cash managerial remuneration and firm performance. Also, unlike some previous studies, this paper shows that only pure directors are able to practice effective monitoring and gray directors have no significant effect on firm performance. The outside directors, both gray and pure, have no impact upon finance performance in the REITs industry. Moreover, this paper tackled the board size effect investigated previously in the literature. The findings of this study confirm a nonlinear relationship between board size and firm performance. The relationship is negative when board size is small, and it turns positive when board size grows.

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