

The Connection between CEO Characteristics and Board Meetings: An Empirical Analysis

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Abstract

I examine how firm characteristics and CEO characteristics affect the frequency of annual board meetings. The data sample covers the post Sarbanes-Oxley Act era between 2002 and 2006. Using a Tobit qualitative response model with a data set of 1,273 corporations from ExecuComp, I find evidence that seasoned CEOs with high level of stock ownership and cash compensation are less likely to hold frequent board meetings as predicted by the hypothesis of corporate governance under managerial entrenchment. The propensity to hold board meetings is significantly and positively associated with the size of the firm and is significantly and negatively associated with Return on Equity (ROE). However, the existence of executive stock options and CEO long-term incentive plan may increase the frequency of board meetings. My results extend and refine the growing literature on the relation of executive compensation, board activities and corporate governance.

I. Introduction

In recent years, regulators and the congress have focused on the role of board of directors and its committees in an effort to achieve better corporate governance. According to the 2002 Sarbanes-Oxley Act, the membership of board and board committees has been explicitly formulated. The increased focus on the role of the board has led to increased activity by the board and its committees. In a recent study, Chhaochharia and Grinstein (2009) document the evidence that after the introduction of the 2002 Sarbanes-Oxley Act, firms that did not comply with the board requirements decreased CEO compensation significantly compared to the complying firms. They also find that the drop in compensation comes from the decrease in the bonus and the stock-based compensation.

In line with the recent regulatory reform, the board meeting frequency has important implications for corporate governance. Brick and Chidambaran (2007) study the association between the level of board meetings and firm value for a period around the induction of Sarbanes-Oxley Act. They show that increased board monitoring activity can increase the firm value over their sampling period.

Corporate boards are under pressure to become more active in response to increasing problems with stakeholders and government regulations nowadays. In a previous study, Vafeas (1999) finds a weak relationship between board meeting frequency and the number of directorships held by independent directors. Moreover, corporate boards meeting more frequently have lower market values. However, the association between the frequency of board meetings and characteristics of CEOs is not addressed in Vafeas (1999). In this study, I empirically examine the monitoring role of the board between 2002 and 2006 over which there has been increased political and regulator focus on board independence.

One of the main functions of corporate boards is to select and evaluate the effectiveness of CEOs. Due to costly shareholders' activism, managers can entrench themselves in many ways.

Hermalin and Weisbach (1998) show that CEO influence over corporate board increases with the CEO's tenure in the firm. Hence overlooking the relation between board meeting frequency and CEO characteristics can lead to misspecification problem. Following the introduction of Sarbanes-Oxley Act in July 2002, I explore the impact of firm and CEO characteristics on the frequency of board meetings explicitly in this research. Entrenched managers can only be disciplined or replaced at some cost to the shareholders. A growing literature examines the mechanisms through which managers entrench themselves (Stulz (1988) and Shleifer and Vishny (1989)), and also studies the implications of such entrenchment (e.g., Stulz (1990), Zwiebel (1996), and Fluck (1999)). As illustrations, Fluck (1999) shows that, in equilibrium, managers pay the minimal level of dividend payout that just forestalls "punishment" by shareholders through costly control challenges. Other things being equal, the minimal (or protection) level of payout is lower for superior and more entrenched managers, when the level of entrenchment is negatively related to the likelihood of successful control challenges.

Highly entrenched managers can undertake negative NPV projects (e.g. Zwiebel (1996) and Fluck (1999)). However, those managers are more likely to restrict themselves from non-value-maximizing behavior if executive incentive compensation sufficiently aligns managerial and shareholder interests or if there are great growth opportunities. Thus, ignoring managerial entrenchment and incentive compensation considerations in studying board activities could lead to a specification bias. I therefore extend the set of refutable predictions to include a negative relation between board meeting frequency and managerial incentives delivered through stock-based executive compensation. In addition, Raheja (2005) suggests that board structure will change with a firm's life cycle. This may be due to the amount of public information available about the firm or the fact that the verification cost of the firm's investment project decreases as the firm matures. To further explore the firm life cycle effect, I study the characteristics of firm size and past performance in my research.

I have several principal findings. As predicted by the corporate governance under managerial entrenchment hypothesis, board meeting frequency is significantly and negatively associated with the likelihood of non-value-maximizing behavior by top-management. Other things held equal, firms exhibiting greater CEO power attributes, such as higher CEO stock ownership and larger amount of compensation paid in cash salary and bonus — are significantly less likely to hold as many board meetings. Such firms also tend to be larger, have better performance records and possess more intangible assets.

Overall, a qualitative response model of the basic board meeting frequency based on the corporate governance under managerial entrenchment perspective, does remarkably well in addressing board activities in my sample of firms from 2002 through 2006. In general, my result shows a consistent but insignificant connection between board meeting frequency and a CEO's tenure and executive stock options. This result is in line with recent evidence about board monitoring activity. Specifically, the firm's growth opportunity, the tenure of a CEO and the existence of CEO stock-based compensation are correlated to a much smaller extent with the board meeting frequency. Thus, the negative relation of firm performance to board meeting frequency is not as general as suggested by the literature.

I also examine the dividend policy effects on the variations in board meeting frequencies. Existing literature suggests that there is a significant difference in terms of firm and CEO

characteristics between dividend paying firms and firms without dividend payment. With a larger sample covering the 2002-2006 periods, I find that CEO stock ownership defined as the market value of shares owned by a CEO, does significantly affect the likelihood of board meeting frequency. In addition, CEO cash compensation and exercised stock options are significant determinants of board meeting frequency for firms with existing dividend policy, but not significant determinants for firms without dividend payment – a phenomenon that has not previously been addressed in the academic literature.

My analysis extends and refines the growing literature on the relation of firm attributes to corporate board activities. I study the impact of executive compensation on the board meeting frequency directly. I find that, along with firm size and firm performance, CEO cash compensation and stock-based incentive compensation affects the board meeting frequency. I also find that CEO stock options and long-term incentive plans have different effects for firms with existing dividend policy. Thus, the negative relation of executive incentive compensation and board meeting frequency documented in the literature (Vafeas (1999)) does not hold for firms at different life cycle. Finally, I examine the relative influence of executive stock options exercised on the board meeting frequency, an important factor generally not emphasized in the literature.

The rest of the paper is organized as follows. Section 2 sets up the empirical test design and testable hypotheses. Section 3 describes the data and the sample. Section 4 presents the results of the Tobit regressions, and Section 5 concludes.

II. Empirical Test Design

In the typical managerial entrenchment model, managers derive utility from controlling the firm and by undertaking new projects (empire-building). Due to costly verification or other enforcement impediments, the manager's non-value-maximizing behavior cannot be simply contracted away. Managers can be separated from control only if there is a successful proxy motion by shareholders (e.g., Fluck (1999)) or if there is hostile takeover or if the firm declares bankruptcy (e.g., Zwiebel (1996)). Managerial entrenchment is possible due to costly shareholder activism and the market for corporate control. Managers may also effectively entrench themselves by making manager specific investments (Shleifer and Vishny (1989)) and by strategically enhancing their voting rights (Stulz (1988)).

A. Managerial Types and Observed Board Meeting Frequency

Consistent with the theoretical literature, my empirical test design relates number of board meetings to the notion of managerial-types. The manager's type is quantified as being proportional to the likelihood of value-maximizing behavior. More productive managers have a higher likelihood of taking value-maximizing investment decisions due to some combination of having better growth opportunities, being less entrenched, and having better incentive alignment with shareholder interests. Conversely, less productive managers are less likely to take value-maximizing investment decisions due to some combination of having inferior investment opportunities, being more entrenched, and having poor incentive alignment with shareholder interests.

I model the unobservable managerial type in a manner that facilitates econometric implementation of the entrenchment model. The unobservable managerial entrenchment is denoted by a real-valued parameter t^* . Higher t^* -values indicate more productive managers. The managerial type t^* is readily related to the decision of proposing board meetings. The theoretical models predict a negative relation between the magnitude of board activities and the strength of the managerial-type, conditional on the firm characteristics. Therefore, I estimate the following specification based on Tobit model:

$$(1) \quad Y^* = \alpha_1 + \beta_1' t^* + \varepsilon_1$$

$$(2) \quad \log(\text{meetings}) = \begin{cases} Y^* & \text{if } Y^* > 0 \\ 0 & \text{if } Y^* \leq 0 \end{cases}$$

To accommodate non-linearity, I use logarithm of number of board meetings during a year as the depended variable. I recognize Equation (1) as a univariate quantitative response model. Because of the censoring problem associated with the dependent variable, it is appropriate for us to use Tobit model to conduct the empirical analysis. The hypothesis here is that the observed $\log(\text{meetings})$ is a non-decreasing function of t^* .

B. Estimation of Managerial Types

I assume the manager's type is a linear function of the form:

$$(3) \quad t^* = \alpha_2 + \beta_2' X + \varepsilon_2.$$

Here X is a vector that consists of a series of observable indicators reflecting the type of the manager, and ε_2 is a random error.

Combining the above three equations, I have the empirical specification of the Tobit model as:

$$(4) \quad \log(\text{meetings}) = \alpha_3 + \beta_3' X + \varepsilon_3$$

The vector X should include variables, taken to be exogenous in the short- to medium-run, that determine the strength of the managerial type. Consistent with the foregoing discussion, X includes three classes of variables that proxy for: (1) the CEO's level of entrenchment based on her power over internal governance and monitoring mechanisms, (2) the CEO's incentives for shareholder value-maximization, and (3) the characteristics of the firm. Exhibit 1 provides a precise definition of these variables and also their predicted sign with respect to board meeting frequency.

I proxy the CEO's level of internal entrenchment and incentive compensation through the following four variables derived from the corporate governance literature.

CEO Tenure: This variable impacts managerial type in two ways. First, organizational theorists argue that tenure is positively related to the CEO's internal power (e.g., Finkelstein and

Hambrick (1989)). Secondly, Murphy (1986, 1999) shows that CEOs nearing retirement have a shorter career horizon, relatively limited outside employment opportunity, and greater accumulated wealth tied to her equity interest in the firm. In addition, Berger et al. (1997) show that CEO tenure has significant effect on firm's debt policy. All these arguments suggest a positive association between tenure and the level of entrenchment. In my study, I calculate a CEO's tenure as the leaving date minus her inauguration date for a CEO who left her position during the sampling years. For continually serving CEOs, tenure is calculated as the difference between the end of the current reporting year and her inauguration date.

CEO cash compensation: recent evidence indicates that entrenched CEOs tend to have a large share of their compensation paid through non-contingent compensation (e.g., Core et al. (1999)). Higher amount of a CEO's cash compensation (i.e., salary and bonus) in her annual compensation indicates the level of entrenchment of a manager. In this study, I use the logarithm of CEO salary and bonus as a CEO's cash compensation.

CEO stock ownership: The CEO's personal stock ownership in the firm provides high-powered incentives. However, higher CEO stock ownership also appears to increase CEO power. For example, Dennis et al. (1997) show that top-management ownership has a significant and negative impact on CEO replacement and turnover. In this study, I take the logarithm of market value of total shares owned by a CEO in the beginning of year t as a measure of top-management stock ownership.

Executive stock options: Executive stock options have become increasingly prominent means of delivering high-powered incentives to management. I consider the value of executive stock options awarded to the CEO in the beginning of year t .

EXHIBIT 1: DEFINITION OF VARIABLES

I define the dependent and independent variables. For the independent variables, I also indicate their theoretically predicted sign in Tobit regressions. A positive (negative) sign implies that increases in variable value increase (decrease) the likelihood of board meeting frequency, holding other things fixed. All independent variables are taken the beginning of the year.

| Dependent variable | | Definition |
|-------------------------|----------------|--|
| log (meetings) | | Log (number of board meetings) during year t . The number of board meetings is extracted from ExecuComp database. |
| Independent variables | Predicted Sign | Definition |
| CEO tenure | Negative | Log (1+CEO tenure). CEO tenure is defined as number of years a CEO stays in her position. Records are extracted from ExecuComp database. |
| Total Cash Compensation | Negative | Log (1+ value of salary and bonus given to a CEO in a certain year). Records are extracted from ExecuComp |

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|---|----------|---|
| | | database. |
| CEO stock ownership | Negative | Log (1+Market value of shares owned by a CEO). The price of stock is taken from CRSP at the beginning of year t ; the number of shares owned by a CEO is obtained through ExecuComp database. |
| Executive stock options | Positive | Log (1+value of executive stock options). Records are extracted from ExecuComp database. |
| Executive stock options exercised | Positive | Log (1+dollar value of stock options exercised by a CEO). Records are obtained from ExecuComp database. |
| Return on Equity in the preceding two years | Negative | ROE in year $t-1$ and year $t-2$. Records are extracted from Compustat. |
| Market to book ratio | Negative | The market value of equity divided by the book value of equity at the beginning of year t . Records are obtained from Compustat. |
| Value of assets | Positive | Log (1+Book value of assets). Book value of assets is taken at the beginning of year t . Records are available through Compustat. |
| Asset Structure | Positive | Book value of intangible assets divided by the book value of total assets at the beginning of year t . Records are obtained from Compustat. |
| Other Control Variables | | Definition |
| Debt ratio | — | Book value of total debt divided by book value of debt + market value of equity at the beginning of year t . |
| Firm age | — | Firm age equal to the current reporting year minus the beginning date of a firm's listing year obtained through CRSP monthly file. |

Since a manager's power in a firm is related to the characteristics of the firm, I also introduce firm attributes into my study. I use the logarithm of firm asset as a measure that indicates the stage of a firm's life cycle; to evaluate the effect of a firm's growth opportunities, I consider the market-to-book ratio in the beginning of year t in my study.

Next, I use the asset structure. This variable is introduced to control for differential structure of firms with different level of intangible assets. The measure is calculated as book value of intangibles divided by the book value of asset at the beginning of year t . Moreover, firm performance measures are introduced as return on equity (ROE) in previous two years (i.e., year $t-1$ and year $t-2$).

There is a potential look-ahead bias if I use independent variables obtained from the end of the period, rather than the beginning of this period. In general, using end-of-the-period values are likely to overstate the explanatory power of the model. To control for this effect, all independent variables are taken to be the beginning-of-the-year values.

I also consider several control variables in my analysis to address the potential omitted variable problem. Firm age and size of the firm are positively correlated (e.g., Audretsch (1995)), and smaller firms are more likely to have a greater proportion of asset value in growth options. Empirically, older or more mature firms have diminishing growth opportunities and tend to have higher payout yield (e.g., Fama and French (2001)). To address the age effect, I calculated the age of a firm as the difference between the reporting year in the sample and the stock listing date of the firm. The listing date is obtained through CRSP monthly file. The second variable is debt ratio. According to the entrenchment literature (e.g., Zwiebel (1996), Fluck (1999)), highly entrenched managers use more debt to control themselves from taking non-value-maximizing behaviors voluntarily. I use the ratio of book value of debt to the sum of book value of debt and market value of equity as a proxy for a firm's debt policy.

III. Data and Sample Selection

The data are taken from the 2007 S&P ExecuComp database. I choose 2002 as the first year in my sample since that is the year when Sarbanes-Oxley Act was officially introduced. In this study, I identify records of 1,798 top-managers from publicly traded companies that are included in various S&P indices, covering the period from 2002-2006. For each firm in the database, I take the annual board meeting frequency and compensation records for the CEO, and also obtain the firm's accounting and financial information from the S&P Compustat file. I include all firms in the ExecuComp database from 2002 through 2006, but exclude financial service (SIC code 4900 to 4999) corporations and utility (SIC code 6000 to 6999) corporations. My final sample in this study consists of 4,479 firm-year records.

IV. Results of Multivariate Analysis

To address the non-linear relationship in the model, I use logarithm of number of board meetings in year t as dependent variable. I estimate the Tobit model given in Equation (4) above,

Table 1. Baseline Tobit Model on the Likelihood of Board Meeting Frequencies, 2002-2006

The dependent variable is log (number of board meetings) in year t of a firm. The records are available through *ExecuComp* database. The value of t -statistic is reported in the parenthesis. A positive (negative) coefficient sign indicates that the variable is positively (negatively) associated with the likelihood of board meetings. McFadden pseudo- R^2 is calculated as $1 - L_M/L_O$, where L_M is the log-likelihood for the estimated model, and L_O is the log-likelihood in the model with only an intercept.

| Explanatory variables | Predicted sign | Coefficients of Tobit Specification |
|-----------------------------------|----------------|-------------------------------------|
| Intercept | — | 1.783 (3.851)*** |
| CEO Tenure | Negative | -0.568 (-1.071) |
| Total cash compensation | Negative | -0.0149 (-2.090)*** |
| CEO stock ownership | Negative | -0.023 (-5.353)*** |
| Executive stock options | Positive | 0.172 (0.932) |
| Executive stock options exercised | Positive | 0.003 (1.538) |
| Return on equity in year t-1 | Negative | -0.031 (-4.340)*** |
| Return on equity in year t-2 | Negative | -0.097 (-1.47) |
| Value of assets | Positive | 0.053 (10.578)*** |
| Market to Book | Positive | 0.024 (0.171) |
| Asset structure | Positive | 0.157 (4.529)*** |
| Estimated Sigma | | 0.388 |
| Log Likelihood | | -2106.685 |
| Number Of Observations | | 4427 |
| Pseudo R ² | | 26.2% |

Asterisks *, **, *** indicate t-statistic significance at 10%, 5%, and 1% levels, respectively.

assuming a symmetric distribution of the random disturbance ε_3 . I parameterize $F(\varepsilon_3)$ as the cumulative distribution functions of the normal distributions. Note that Equation (4) gives the likelihood of board meeting frequencies. Examining the right hand of side of this equation, I see that if the estimate for the coefficient of β_j for any independent variable X_j is positive (negative), then that variable is positively (negatively) related to the likelihood of holding board meetings.

A. Analysis of the Baseline Model

Table 1 reports the results of my basic model. I find that the likelihood of board meetings is significantly related to firm and managerial characteristics, as predicted by the empirical framework. *Ceteris paribus*, the board meeting frequency decreases significantly with the level of CEO total cash compensation (i.e., salary and bonus), and stock ownership. All of these factors are significant at the 1% level and are positively associated with the power of a CEO in

the firm. Additionally, I also find that the length of CEO tenure has a negative but insignificant impact on the likelihood of board meeting frequency. These factors are indicators of managerial entrenchment. Conversely, the frequency of board meetings is positively associated with the level of executive stock options and the value of stock options exercised.

In the same time, I find that, board meeting frequency is positively related to firm size, measured by the book value of assets, and negatively related to firm performance, measured by return on equity (ROE), in the previous two years. These effects are consistent with results reported in Vafeas (1999). Interestingly, I also find that corporate boards tend to hold more meetings when a firm has more intangible assets and when the firm's market-to-book ratio is higher though this effect is statistically insignificant.

My new study shows that board activities, measured by board meeting frequencies, have significant association with top manager's internal power and compensation plans. My basic model is highly significant from the perspective of likelihood-ratio tests: the chi-square test-statistics have p-values less than 0.001, and McFadden pseudo- R^2 yields 26.2%. I emphasize that the apparent success of the basic model in addressing board meeting frequencies with respect to firm and CEO characteristics should be interpreted with caution. The predictive power of the model can only be validated with robustness tests.

As a robustness check, I introduce two variables that are related to a firm's life cycle (firm age) and capital structure (debt ratio) as additional control variables into my analysis. I first introduce the two variables one by one and then use both variables simultaneously into the model. The results are shown in Table 2. Clearly, there is no significant impact from these omitted variables on my overall model, I still have the same effects that are discovered in the baseline model. My results show that, there is no relation between board activities, measured by board meeting frequency, and firm age. One possible explanation is that other firm attributes considered in the study, i.e., firm size measured by book value of assets, asset structure reported as a fraction of tangible asset, and firm performance measured by return on equity (ROE) in the previous two years, have outperformed this omitted effects. However, the debt policy shows a marginally significant impact on the likelihood of board monitoring activity. Since the use of

Table 2. The Effect of Other Firm Characteristics on the Likelihood of Board Meetings

I consider two variables that are related to a firm's life cycle, capital structure and future growth opportunities. Those variables are defined in Exhibit 1. Values of those variables are calculated using beginning-of-the-year records available from Compustat. The value of t-statistic is reported in the parenthesis. McFadden pseudo- R^2 is calculated as $1 - L_M/L_O$, where L_M is the log-likelihood for the estimated model, and L_O is the log-likelihood in the model with only an intercept.

| Explanatory variables | Predicted sign | Tobit Model (1) | Tobit Model (2) | Tobit Model (3) |
|-----------------------------------|----------------|-----------------------|-----------------------|-----------------------|
| Intercept | — | 1.818 (3.679)*** | 1.771 (3.812)*** | 1.801 (3.162)*** |
| CEO Tenure | Negative | -0.381 (-0.618) | -0.823 (-1.522) | -0.562 (-0.983) |
| Total cash compensation | Negative | -0.015 (-2.032)** | -0.012 (-1.673)** | -0.012 (-1.591) |
| CEO stock ownership | Negative | -0.023 (-5.364)*** | -0.023 (-5.331)*** | -0.023 (-5.452)*** |
| Executive stock options | Positive | 0.150 (0.813) | 0.231 (1.242) | 0.202 (1.083) |
| Executive stock options exercised | Positive | 0.003 (1.591) | 0.002 (1.240) | 0.003 (1.301) |
| Return on equity in year t-1 | Negative | -0.031 (-4.322)*** | -0.030 (-4.213)*** | -0.031 (-4.190)*** |
| Return on equity in year t-2 | Negative | -0.095 (-1.461) | -0.095 (-1.470) | -0.093 (-1.432) |
| Value of assets | Positive | 0.054 (5.233)*** | 0.052 (4.832)*** | 0.051 (5.613)*** |
| Market to Book | Positive | 0.026 (0.191) | 0.121 (0.877) | 0.126 (0.923) |
| Asset structure | Positive | 0.156 (4.487)*** | 0.146 (4.183)*** | 0.143 (4.121)*** |
| Firm age | ? | -0.013 (-1.033) | — | -0.017 (-1.454) |
| Debt ratio | ? | — | 0.072 (1.911) | 0.073 (1.941)* |
| Estimated Sigma | | 0.347 | 0.352 | 0.387 |
| Log Likelihood | | -2067.301 | -2290.17 | -2106.153 |
| Number Of Observations | | 4387 | 6293 | 4359 |
| Pseudo R ² | | 26.2% | 26.7% | 26.3% |

Asterisks *, **, *** indicate *t*-statistic significance at 10%, 5%, and 1% levels, respectively. debt and dividend policy can be adopted as control mechanisms for managerial entrenchment, the debt effect in my model suggest a further study involves dividend policy.

B. Effects of Dividend Policy**Table 3. The Effect of Dividend Policy on the Likelihood of Board Meetings**

I classify all observations into dividend-paying subsample vs. non-dividend subsample according to sample firms' dividend payment. A firm's dividend policy is taken as the beginning of the year dividend payment. The Tobit model estimates (cf. Table 1) are provided for the dividend-paying and non-dividend subsamples during the sampling years. The value of t-statistic is reported in the parenthesis. McFadden pseudo- R^2 is calculated as $1 - L_M/L_O$, where L_M is the log-likelihood for the estimated model, and L_O is the log-likelihood in the model with only an intercept.

| Explanatory variables | Predicted sign | Dividend-Paying Subsample | Non-Dividend Subsample |
|-----------------------------------|----------------|---------------------------|------------------------|
| Intercept | — | 1.590 (9.872)*** | 1.837 (15.166)*** |
| CEO Tenure | Negative | -0.356 (-0.592) | -1.412 (-1.301) |
| Total cash compensation | Negative | -0.031 (-2.201)*** | -0.005 (-0.524) |
| CEO stock ownership | Negative | -0.019 (-5.683)*** | -0.024 (-8.52)*** |
| Executive stock options | Positive | -0.406 (-1.393) | 0.291 (1.218) |
| Executive stock options exercised | Positive | 0.005 (1.941)* | 0.002 (0.633) |
| Return on equity in year t-1 | Negative | -0.122 (-3.200)*** | -0.025 (-3.292)*** |
| Return on equity in year t-2 | Negative | 0.089 (0.322) | -0.077 (-1.101) |
| Market to Book | Positive | 0.456 (1.708)* | -0.043 (-0.201) |
| Value of assets | Positive | 0.089 (5.877)*** | 0.037 (5.322)*** |
| Asset structure | Positive | 0.072 (1.398) | 0.223 (4.776)*** |
| Estimated Sigma | | 0.353 | 0.403 |
| Log Likelihood | | -652.176 | -1403.510 |
| Number Of Observations | | 1718 | 2719 |
| Pseudo R^2 | | 23.6% | 21.1% |

Asterisks *, **, *** indicate t-statistic significance at 10%, 5%, and 1% levels, respectively.

The most influential variables for the board meeting frequency in Table 1 are the size of firm, measured by book value of assets, asset structure, total cash compensations, stock ownership of CEOs and recent firm performance, measured by ROE. I conjecture that these results are likely to be correlated with managerial internal powers of sample firms. Existing theory and evidence show that entrenched managers are more likely to introduce a mixture of debt and dividend payout policy in order to maximize his or her control of the firm or other unobservable benefit in the firm.

I test for the potential effects by estimating the baseline model of Table 1 separately for firms with dividend payment and firms without dividend in the sample. In my research, there are significantly more firms that do not pay ordinary cash dividend during the sampling years. The results are reported in Table 3.

In general, models for both dividend-paying firms and non-dividend firms perform at the same level as the baseline model. The most important finding here is that firm attributes and CEO compensation exhibit different impacts between dividend-paying and non-dividend firms. The value of stock options exercised can marginally increase the propensity of holding more board meetings for firms with existing dividend policy; this effect is significant at the 10% level. However, executive stock options show a negative connection with board meeting frequency, though the effect is insignificant in my study. The differential impact of executive stock options awarded among firms with different dividend policies has not been emphasized in existing literature, this effect needs further study.

It is noteworthy that in my analysis, CEOs with high cash compensation in a firm with positive dividend payment are likely to hold more meetings but this effect is insignificant for corporations without dividend payment. Moreover, different from firms without dividend payment, dividend-paying firms tend to hold more board meetings if they have higher market-to-book ratio, this effect is significant at the 10% level. This fact has generally not been explored in the literature. One possible interpretation is that market-to-book ratio can be an indicator of firm life cycle and managerial power in firms without dividend payment; corporate boards tend to stay more passively while managers have more control of the firm, but this is not the case for firms with existing dividend payment.

V. Summary and Conclusions

With the introduction of Sarbanes-Oxley Act in year 2002, the environment of corporate governance has been changed drastically. The event gives us an opportunity to test the theoretical arguments regarding board monitoring role in a corporation. The theoretical and empirical literature on corporate governance and managerial entrenchment makes a number of relatively unambiguous refutable predictions regarding corporate board activities. I extend this framework to allow for the role of managerial compensation contracts. The predictions are then that (*ceteris paribus*) the likelihood of board meeting frequency is negatively related to the level of managerial entrenchment and firm performance, and positively related to firm size set and the power of performance-based managerial incentives. Since we generally face active managers in practice, we should consider the role of corporate board monitoring when managers are in control. In this case, my empirical framework under managerial entrenchment is distinct from

traditional studies about board activities. In particular, I directly incorporate the strength of internal corporate governance mechanisms and firm characteristics in my study.

Consistent with theoretical literature, my empirical test design views observed board meeting frequency to be driven by the likelihood of managers to take non-value-maximizing decisions. My results support the theoretical predictions of the management entrenchment literature. I find that factors related to managerial entrenchment levels have a significant explanatory power with respect to the propensity of holding board meetings, even controlling for the firm age, size, and the quality of investment opportunity set. My analysis extends and refines the growing literature on the relation of incentive compensation to corporate governance. Overall, my analysis confirms that executive characteristics are significant factors in determining board meeting frequency.

This study has implications for future research. Recent financial turbulences in the world cast a lot of doubts on the general practice regarding corporate executive compensations. With the introduction of Sarbanes-Oxley Act, the effectiveness and implementation of accounting and corporate governance reforms need to be monitored closely. My research can help us further understand the interaction between corporate board monitoring activities and characteristics of CEOs. Studies exploring the link between executive power and characteristics of corporate board structure need to be addressed. Such an examination can help policy makers to better restrict managerial behaviors and hence align managerial interests more closely with investors' interests.

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