RESEARCH NOTES

THE EFFECT OF INSTITUTIONAL INVESTORS ON THE LEVEL AND MIX OF CEO COMPENSATION

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This study investigated the influence of institutional investors on CEO compensation policy. Results suggest that institutional owners that have only an investment relationship with a firm influence compensation in accordance with shareholder preferences to (1) lower its level and (2) increase the proportion of long-term incentives in total compensation. However, institutions that depend on a firm for their own business are not able to influence compensation in this manner. This study extends prior research by supporting the viewpoint that the nature of ownership in a firm is an important determinant of CEO compensation.

Considerable research has examined the effect of ownership structure on chief executive officer (CEO) compensation policy (see Gomez-Mejia [1994] for a review). Essentially, the conclusion of this research has been that owners with large blocks of shares (typically, more than 5 percent of a firm’s total shares) influence CEO compensation as per the interests of all shareholders. Although prior research has provided significant insights on the relationship between the size of ownership stakes and CEO compensation, it has failed to consider the effect of the nature of corporate ownership. Specifically, the role of an increasingly important shareholder group, institutional investors, has not been adequately studied (Gomez-Mejia, 1994).

Institutional investors own more than half the equity of U.S. corporations (Useem, 1996). Although institutional investors may individually have small holdings, their large aggregate ownership provides them power over a firm’s management (Davis & Thompson, 1994). Institutional investors are a heterogeneous group of organizations, including banks, public and private pension funds, mutual funds, and insurance companies, and they have potentially divergent predilections toward exercising influence (O’Barr & Conley, 1992). As owners, all institutions have an obligation to exercise a governance role; however, some institutions may not effectively perform this role because of conflicts of interest resulting from business relationships with firms in which they invest (Heard & Sherman, 1987). Our study addresses this question by examining the influence of different types of institutional investors on CEO compensation. As a firm’s compensation policy has the potential to affect its performance (Gerhart & Milkovich, 1990), it becomes important to examine the impact of institutional investors on CEO compensation.

OWNERSHIP STRUCTURE AND CEO COMPENSATION

According to a political perspective, organizational outcomes are shaped by a struggle for dominance among coalitions with possibly opposing goals (Mintzberg, 1983; Pfeffer, 1981). Managers and owners represent two major coalitions at the apex of a firm with opposing preferences as regards compensation policy, and the level and mix of compensation is likely to reflect the preferences of the group that gains the preponderance of power (O’Reilly, Main, & Crystal, 1988; Tosi & Gomez-Mejia, 1989). In the absence of strong owners, CEOs may gain power to extract higher pay than is justified by market considerations (for instance, the level of the CEOs’ human capital, their expected

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marginal product vis-à-vis the competitive price set by the market for CEO talent, and the level of firm performance (Finkelstein & Hambrick, 1988)). Prior research has generally supported this viewpoint: CEOs of owner-controlled firms—firms in which at least one owner possesses more than 5 percent of the shares—have been shown to have lower levels of pay than those of manager-controlled firms, which are characterized by more diffuse ownership (Dyl, 1988; Hambrick & Finkelstein, 1993).

The compensation mix, or the proportion of long-term incentives in a compensation contract, may serve to align the interests of managers with those of shareholders by rewarding CEOs only if shareholder returns are enhanced (Beatty & Zajac, 1994; Gomez-Mejia, 1994; Zajac & Westphal, 1994). As long-term incentives lessen the need for vigilant monitoring (Beatty & Zajac, 1994; Zajac & Westphal, 1994), shareholders often favor them. However, CEOs may prefer to minimize this long-term component as they can benefit only if performance improves (Gomez-Mejia, Tosi, & Hinkin, 1987; Westphal & Zajac, 1994). The portion of CEO pay linked to long-term performance is vulnerable to factors beyond managerial control, such as aggregate market demand and stock market fluctuations, that increase the riskiness of compensation (Hill & Phan, 1991). Furthermore, long-term incentives granted in the form of stock increase a CEO's firm-specific investment and, consequently, his or her associated risk (Beatty & Zajac, 1994). CEOs would presumably prefer to retain control over their pay by getting compensated through cash, thereby limiting the extent to which their income is exposed to risk. Consistent with these arguments, research has shown that incentive alignment is greater in owner-controlled than in manager-controlled firms (Tosi & Gomez-Mejia, 1989) and that, when CEOs gain power—as they do, for instance, when they also hold the board chairperson title—the compensation mix reflects CEO preferences for minimizing the long-term component of pay (Beatty & Zajac, 1994; Zajac & Westphal, 1994).

THEORY AND HYPOTHESES

The Role of Institutional Investors

Institutional investors have recently emerged as an important group of shareholders with the potential to check managerial hegemony. Institutional investors increased their aggregate ownership stakes in U.S. equity markets from 16 percent in 1965 to 57 percent by 1994 (Useem, 1996). Even when single institutional investors do not own large blocks of shares, they may nevertheless seek a more active governance role than individual shareholders. Unlike individuals, institutions essentially invest "other people's money," and they thus have a legal fiduciary obligation to take proactive actions, such as actions influencing CEO pay, to protect their investments against erosion in value (Krikorian, 1991). Additionally, their high aggregate ownership makes it difficult for institutional investors to sell off their shares in response to poor firm performance, as their doing so may adversely affect the stock price. Moreover, it is difficult for institutional investors to find appropriate alternate investments, considering that they already own significant stakes in most firms in the economy. The difficulty of exit provides these investors with the incentive to exercise voice to influence the level and mix of CEO compensation (David & Kochhar, 1996). Ownership in hundreds of firms provides institutional investors the opportunity to gain economies of scale in monitoring compensation policy (Black, 1992). Through their interactions with various companies in their portfolios, institutions can likely develop the ability to determine if the compensation policy of a firm is appropriate.

It has been suggested that the rise in institutions' power arising from the increase in their aggregate equity holdings constitutes a new social movement (Davis & Thompson, 1994). Although single institutional investors may not have large blockholdings, they can gain power from coordinated action through their joint holdings to influence CEO compensation. The formation of shareholder organizations such as the Council of Institutional Investors has conferred a shared identity on institutional investors and provided a springboard for collective action (Davis & Thompson, 1994). Institutions are increasingly resorting to activism to press their demands. Their involvement in setting compensation policy is most visible in poorly performing firms, where these investors seek to initiate change by negotiating with the boards, demanding the nomination of independent compensation committees, voicing public criticism, and sometimes even voting against board nominees proposed by management (Useem, 1996). These pressure tactics have been successful at firms such as Champion International and Advanced Micro Devices, both of which changed compensation packages in response to institutional demands (Star, 1993). In most cases, institutional investors with far less than 5 percent ownership have initiated such actions (Wahal, 1996). However, the groundswell of support from various institutional investors with high aggregate ownership has forced managers to respond to their demands (Useem, 1996). Thus, it appears that own-
ership stakes can provide institutional investors the power to influence compensation.

**Differences among Institutional Investors**

As noted, institutional investors are a diverse set of organizations, including banks, public and private pension funds, mutual funds, and insurance companies, among others (O'Barr & Conley, 1992). The power to monitor managers and the predilection for doing so may differ across these organizations, and not all institutional investors may have the means or the inclination to influence compensation. The relationship between institutional investors and firms can be described along two dimensions. First, equity ownership in a firm provides institutions with an investor relationship. All institutional investors have this relationship to the firms they invest in and, as owners, they have a fiduciary responsibility to safeguard their investments (O'Barr & Conley, 1992). Thus, institutional investors will attempt to influence the level and mix of CEO compensation in the firms they invest in to safeguard the value of their ownership stakes, as discussed previously.

An institutional investor, however, may also have a business relationship with a firm in which it invests. For such an institution, the power gained from the ownership stake (Finkelstein, 1992) may be partially negated by dependence on the firm for business (Cook, 1977; Levine & White, 1961). Firm managers can, presumably, take advantage of the business relationship to co-opt institutional investors by penalizing them if they oppose managerial preferences (Heard & Sherman, 1987). Thus, it appears that the two relationships—investor and business—may pose counteracting pressures on institutional investors (Heard & Sherman, 1987). Ownership represents a source of power that can be used to either support or oppose managers (Salcik & Pfeffer, 1980). Institutions without business relationships can use their ownership power to oppose managers' preferences for more generous compensation. In contrast, the presence of business relationships may constrain institutional investors. To safeguard such business relationships, institutional investors may be reluctant to use their ownership power against managers and may even support managers' efforts to obtain more generous compensation. Thus, ownership stakes may not automatically signify better governance, and it becomes necessary to examine the nature of ownership to determine whether owners are likely to safeguard shareholder preferences or be coopted to support managerial preferences.

Brickley, Lease, and Smith (1988) developed a taxonomy for classifying institutional investors in terms of the extent to which business relationships can reduce ownership power and, hence, the ability to effectively influence firm policies. Institutional investors with business relationships with firms in which they might invest include banks, insurance companies, and nonbank trusts. For instance, insurance companies sell insurance policies to firms, and banks derive interest income by lending to firms. These investors are susceptible to influence exercised by firm managers and are termed pressure-sensitive (Brickley et al., 1988). Pressure-resistant institutions, on the other hand, do not have business relationships with firms and, accordingly, do not face conflicts with their investor relationship. These institutions, such as public pension funds, mutual funds, and endowments and foundations, can intervene in corporate governance without fear of retribution from corporate managers. Previous research has shown that pressure-resistant institutions are more effective in influencing managers than are pressure-sensitive institutions. Brickley and colleagues (1988) found that when voting on antitakeover amendments, pressure-resistant institutions were more likely to oppose firm managers than pressure-sensitive institutions. Similarly, pressure-resistant institutions were found to positively influence firm innovation, but pressure-sensitive institutions had no effect (Kochhar & David, 1996).

A third-category, pressure-indeterminate institutions, includes those whose relationships with the firms they invest in cannot be so clearly defined.

CEO compensation is an outcome of a political power struggle between CEOs who attempt to extract the most favorable pay packet and owners who would like to limit the level of compensation and increase the proportion of long-term incentives. The extent to which owners are successful in influencing pay is a function of the power they have to exercise over CEOs. Although all institutional investors have the fiduciary obligation to exercise influence, there may be differences in their ability and incentive to do so. Pressure-resistant institutions are not susceptible to managerial influence and should therefore be able to use the power gained from their ownership stakes to counteract managerial dominance and influence the level and mix of CEO compensation, per shareholders' preferences.

**Hypothesis 1a.** Pressure-resistant institutional ownership is negatively associated with the level of CEO compensation.

**Hypothesis 1b.** Pressure-resistant institutional ownership is positively associated with the
The influence of pressure-sensitive institutions is less clear-cut. As owners, they have the fiduciary obligation to influence compensation, just like pressure-resistant institutions. However, business relationships may pose conflicts of interests, mitigating the extent of their influence. Hence, pressure-sensitive institutions may get coopted and be reluctant to influence compensation. Alternately, they may support managers in their quest for more generous compensation to cement cordial business relationships. However, the extent of such cooptation is difficult to predict. At the very least, we expected pressure-resistant institutions to be more capable than pressure-sensitive institutions of influencing CEO compensation in a direction consonant with shareholder preferences.

Hypothesis 2a. The effect of pressure-resistant institutions on the level of CEO compensation is more consistent with shareholder preferences than the effect of pressure-sensitive institutions.

Hypothesis 2b. The effect of pressure-resistant institutions on the proportion of long-term incentives in CEO compensation is more consistent with shareholder preferences than the effect of pressure-sensitive institutions.

METHODS

Sample and Analyses

Sample firms were identified from the Fortune compensation survey of the 200 largest U.S. corporations during 1992, 1993, and 1994. CEO compensation in these firms was tracked for the period 1990–94. A total of 125 firms for which compensation and other data were available for all five years were included in the sample. We lagged data on independent and control variables by one year. As lagged compensation was one of the independent variables, the analyses were carried out on a sample of 500 observations (125 firms, four years). The data were longitudinal, with both cross-sectional and time series elements, and a random effects pooling model was estimated using generalized least squares (Greene, 1993).  

1 This data structure enabled us to make both between-firms and within-firm comparisons, thus controlling for the effects of any unobserved variables. A one-year lag addresses how compensation policies respond to changes in institutional ownership. Yet limiting the data to four years ensured that policies remained relatively stable over time.

Variables

The two dependent variables used were (1) the level of CEO compensation and (2) the proportion of long-term incentives in total CEO compensation. The level of compensation was the sum of total salary, bonus, and long-term compensation (grants of restricted stock, stock options, stock appreciation rights, and performance plans) in a year. We obtained compensation data from proxy statements and valued long-term compensation using the Black-Scholes options-pricing model (Cannella & Gray, 1996). The proportion of long-term incentives was the ratio of long-term compensation to total compensation. As the distribution of this variable was skewed, we applied a logarithmic transformation. Use of this transformation is consistent with prior research (Zajac & Westphal, 1994).

The independent variables of interest described ownership by the different types of institutional investors. Detailed information on institutional ownership was obtained from the database Compact Disclosure. We used the Money Market Directory, Moody’s Bank and Finance Manual, and Nelson’s Directory of Investment Managers to classify a total of 1,622 institutional investors. The percentage of aggregate ownership held by each of the following three types of institutional investors was computed: (1) pressure-resistant institutions were public pension funds, mutual funds, and endowments and foundations, (2) pressure-sensitive institutions were insurance companies, banks, and nonbank trusts, and (3) pressure-indeterminate institutions, a residual category, were investors such as corporate pension funds, brokerage houses, and investment counselors, whose motives and actions could not be clearly defined. For example, a corporate pension fund does not depend on other firms for business, but it may be unwilling to intervene actively in their affairs as its sponsoring corporation may not like to be the target of similar efforts on the part of its institutional investors.

We included several control variables in the model to account for other factors that might affect CEO compensation policy. Blockholders (shareholders with greater than 5 percent ownership) provide better governance in setting compensation policy than do smaller investors (Hambrick & Finkelstein, 1995; Tosi & Gomez-Mejia, 1989). Following the cited prior research, we used a dummy variable to capture the effect of blockholders. The variable noninstitutional blockholders was coded as one when at least one blockholder, other than an institutional investor, was present in a firm and as zero otherwise. Outside directors may provide better governance and thus influence CEO compensa-
tion, and CEO duality (one person is both a firm’s CEO and chairperson of its board) may provide CEOs undue influence over compensation (Westphal & Zajac, 1994). Accordingly, we controlled for the proportion of outside directors on a board and for CEO duality. A dummy variable was used to code CEO duality (1 = CEO also the chair, 0 = otherwise). Data on blockholders and boards were obtained from Compact Disclosure.

Older CEOs may, by virtue of their experience, receive higher compensation. Also, older CEOs may be more risk-averse and prefer a smaller proportion of long-term incentives. Accordingly, we controlled for CEO age. Hambrick and Finkelstein (1995) suggested that CEOs’ compensation is affected by both (1) their accession to a new position and (2) changes over the course of their tenure. New CEOs are likely to receive higher salaries than they received formerly and, over time, they can expect annual salary increases. Furthermore, CEOs with greater tenure accumulate power over their boards (Finkelstein, 1992), and this may help them obtain higher levels of compensation (Finkelstein & Hambrick, 1989; Hill & Phan, 1991) and limit the proportion of long-term incentives (Westphal & Zajac, 1994). We controlled for the appointment of a new CEO by introducing a dummy variable valued one in a year of appointment and zero otherwise. CEO tenure was measured as an individual’s number of years of service as the CEO of a given firm. Data on CEO characteristics were obtained from Compact Disclosure.

Firm performance may drive the level (Jensen & Murphy, 1990a) and mix of compensation (Westphal & Zajac, 1994). As there is some debate in the literature about the preferred measure (Weiner & Mahoney, 1981), we used both an accounting measure, return on assets (ROA), and a market measure, Jensen’s alpha. CEO compensation is strongly influenced by firm size (Gomez-Mejia, 1994; Lambret, Larcker, & Weigelt, 1991). Therefore, we used the logarithm of firm assets to control for size. Compensation may need to be tailored to firm risk (Gomez-Mejia, 1994). CEOs in firms with high risk may demand a higher level of compensation (Hill & Phan, 1991) and a lower proportion of long-term incentives (Westphal & Zajac, 1994). We controlled for a firm’s systematic risk, defined as the variance of its stock price relative to that of a market portfolio. Data to calculate performance, size, and risk were obtained from COMPSTAT and Center for Research in Security Prices (CRSP) files.

CEO pay is likely to be set in line with prevailing industry norms (Hambrick & Finkelstein, 1995). To control for possible variations in compensation policies across industries, we included two variables for industry pay. Industry pay was determined by computing the mean level of pay and the mean proportion of long-term incentives received by all CEOs in each two-digit Standard Industrial Classification (SIC) code represented in the sample in each year (Hambrick & Finkelstein, 1995; Hill & Phan, 1991). Finally, CEO compensation in prior time periods may affect current compensation. Accordingly, we introduced lagged values in the model as controls.

RESULTS

Table 1 presents the descriptive statistics, including means, standard deviations, and correlations, of the variables used in this study. Table 2 presents the results of the regression analyses. A negative and statistically significant association between pressure-resistant ownership and level of CEO compensation would provide support for Hypothesis 1a. A positive and statistically significant association between pressure-resistant ownership and the proportion of long-term incentives in CEO pay would support Hypothesis 1b. We observed that pressure-sensitive ownership had a positive and significant effect on compensation level but a positive and nonsignificant effect on the proportion of long-term incentives. We evaluated support for Hypotheses 2a and 2b using a t-test of the difference between the coefficients for pressure-resistant and pressure-sensitive institutional ownership. The difference in coefficients for the level of compensation was statistically significant, indicating that pressure-resistant ownership reduced pay more than pressure-sensitive ownership. Thus, with respect to the level of pay, pressure-resistant institutions upheld shareholders’ interests better than pressure-sensitive institutions, supporting Hypothesis 2a. With respect to long-term incentives, however, the difference between pressure-resistant and pressure-sensitive ownership was not statistically significant, thus failing to support Hypothesis 2b.2

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2 To test the sensitivity of our results, we ran the analyses using alternative measures of ownership structure. A Herfindahl measure that weighted large ownership stakes more than smaller ownership stakes gave the same results. This finding suggests that institutional investors with small stakes also play an important role. Our classification of institutional investors is a slight modification of that adopted by Brickley and colleagues (1988). Those authors classified all institutions with less than 1 percent ownership as pressure-indeterminate, arguing that this level of ownership might not be sufficiently high to provide investors the incentives or the power to influence decisions. Our sample consisted of very large firms, and a small stake in such firms may be of very high value. Furthermore, institutional
TABLE 1
Descriptive Statistics and Correlations

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<td>.11</td>
<td>.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Lagged proportion of long-term incentives</td>
<td>2.54</td>
<td>3.06</td>
<td>.13</td>
<td>.41</td>
<td>.03</td>
<td>.08</td>
<td>.08</td>
<td>-.05</td>
<td>.03</td>
<td>.15</td>
<td>.05</td>
<td>-.23</td>
<td>-.02</td>
<td>-.06</td>
<td>.06</td>
<td>.23</td>
<td>.00</td>
<td>.19</td>
<td>.11</td>
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</tr>
<tr>
<td>19. Industry proportion of long-term incentives</td>
<td>2.55</td>
<td>1.20</td>
<td>.16</td>
<td>.40</td>
<td>-.03</td>
<td>.05</td>
<td>.02</td>
<td>-.00</td>
<td>-.06</td>
<td>.08</td>
<td>.08</td>
<td>-.17</td>
<td>.04</td>
<td>-.05</td>
<td>.13</td>
<td>.40</td>
<td>.09</td>
<td>.03</td>
<td>.50</td>
<td>.22</td>
</tr>
</tbody>
</table>

*Correlations greater than .18 are significant at p < .001; r’s > .11 are significant at p < .01; r’s > .09 are significant at p < .05; and r’s > .07 are significant at p < .10. N = 500 (125 firms, four years).

b Millions of dollars.

DISCUSSION AND CONCLUSIONS

We found that institutional investors influenced CEO compensation, but their effect depended on the nature of their relationships with firms. The presence of pressure-resistant institutions that had an exclusively investment relationship with firms and did not depend on the firms for business reduced the level of their CEOs’ pay and increased the proportion of long-term incentives in CEO compensation. The direction of this influence is congruent with the principles of shareholder wealth maximization. The presence of pressure-sensitive institutions, however, had no effect on the mix of CEO compensation and, in fact, appeared to be associated with higher CEO compensation. The divergence between pressure-resistant and pressure-sensitive institutions with respect to their influence on the level of CEO compensation illustrates the political nature of executive pay. Presumably, managers use threats that they will discontinue business relationships to coopt pressure-sensitive institutions or, alternatively, these investors may choose to favor generous pay packages for CEOs in order to cement valued business relationships. The absence of business relationships enables pressure-resistant institutions to favor reduced CEO compensation, in accordance with shareholder preferences. This result is consistent with the viewpoint that institutional investors are owners who actively influence firm outcomes (Jensen, 1993) and with prior research suggesting that institutional investors influence firm strategy (Kochhar & David, 1996) and performance (Nesbitt, 1994). Although prior researchers have mainly considered the effect of the size of ownership stakes, our results suggest

investors have not hesitated to exercise their influence on compensation even when their individual ownership has been lower than 1 percent (Wahal, 1996). Thus, we preferred to classify all institutions, including those with less than 1 percent ownership, as pressure-sensitive or pressure-resistant. We then reanalyzed the data using the Brickley et al. (1988) approach and found the same results. Again, this pattern suggests that small ownership stakes held by institutional investors are important in affecting CEO compensation.
<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Parameter Estimate</th>
<th>Standardized Estimate</th>
<th>Parameter Estimate</th>
<th>Standardized Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-6.84*** (0.91)</td>
<td>-0.76 (0.62)</td>
<td>0.01* (0.00)</td>
<td>0.03*</td>
</tr>
<tr>
<td>Pressure-resistant ownership</td>
<td>-0.02*** (0.01)</td>
<td>0.01 (0.01)</td>
<td>0.01 (0.01)</td>
<td>0.02</td>
</tr>
<tr>
<td>Pressure-sensitive ownership</td>
<td>0.04*** (0.01)</td>
<td>0.01 (0.01)</td>
<td>0.01 (0.01)</td>
<td>0.02</td>
</tr>
<tr>
<td>Pressure-indeterminate ownership</td>
<td>-0.02* (0.01)</td>
<td>-0.18* (0.07)</td>
<td>-0.31* (0.13)</td>
<td>-0.03*</td>
</tr>
<tr>
<td>Noninstitutional blocker ownership</td>
<td>-0.40*** (0.10)</td>
<td>0.01** (0.00)</td>
<td>0.01** (0.00)</td>
<td>0.03**</td>
</tr>
<tr>
<td>GEO duality</td>
<td>0.91*** (0.20)</td>
<td>0.06***</td>
<td>0.07 (0.12)</td>
<td>-0.01</td>
</tr>
<tr>
<td>Proportion of outside directors</td>
<td>0.03*** (0.01)</td>
<td>-0.05*** (0.01)</td>
<td>-0.12***</td>
<td>-0.01</td>
</tr>
<tr>
<td>New CEO</td>
<td>0.12 (0.16)</td>
<td>0.01</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>CEO tenure</td>
<td>-0.02* (0.01)</td>
<td>0.01 (0.01)</td>
<td>0.01 (0.01)</td>
<td>0.02</td>
</tr>
<tr>
<td>CEO age</td>
<td>0.04*** (0.01)</td>
<td>0.01</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>ROA</td>
<td>5.35*** (1.00)</td>
<td>0.04***</td>
<td>0.04* (0.03)</td>
<td>0.02*</td>
</tr>
<tr>
<td>Jensen’s alpha</td>
<td>14.80*** (1.90)</td>
<td>0.04***</td>
<td>-1.88 (1.53)</td>
<td>-0.02</td>
</tr>
<tr>
<td>Size</td>
<td>0.17*** (0.05)</td>
<td>0.01</td>
<td>-0.04 (0.07)</td>
<td>-0.01</td>
</tr>
<tr>
<td>Firm risk</td>
<td>0.09 (0.08)</td>
<td>0.16***</td>
<td>0.36*** (0.03)</td>
<td>0.36***</td>
</tr>
<tr>
<td>Lagged level of compensation</td>
<td>0.10*** (0.02)</td>
<td>0.23***</td>
<td>0.45*** (0.05)</td>
<td>0.18***</td>
</tr>
<tr>
<td>Industry level of compensation</td>
<td>0.75*** (0.04)</td>
<td>0.36***</td>
<td>-779.3***</td>
<td>-0.31</td>
</tr>
<tr>
<td>Lagged proportion of long-term incentives</td>
<td>-917.6***</td>
<td>0.65</td>
<td>0.43</td>
<td></td>
</tr>
<tr>
<td>Industry proportion of long-term incentives</td>
<td></td>
<td>3.26***</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* N = 500 (125 firms, four years). Standard errors are in parentheses.

Test of difference between pressure-resistant and pressure-sensitive ownership.

*p < .05

**p < .01

***p < .001

that the nature of ownership is also an important determinant of CEO pay.

The divergence between pressure-resistant and pressure-sensitive institutions with respect to long-term incentives was less marked. The presence of pressure-resistant institutions increased the proportion of long-term incentives in CEO pay, thus exhibiting influence consistent with shareholder preferences. However, pressure-sensitive institutions appeared neither to exercise governance to increase long-term incentives nor to get coerced by managers to reduce long-term incentives. Also, their effect was not significantly different from that of pressure-resistant institutions, suggesting that pressure-sensitive institutions may find it difficult to justify a reduction in long-term incentives. In recent years, academics have called for an increase in the use of such incentives, arguing that they are important in aligning the interests of managers and shareholders and are far more relevant to shareholders than the level of compensation per se (Jensen & Murphy, 1990b). In the face of the growing popularity of such incentives, supporting their reduction could be interpreted as a violation of institutional investors’ fiduciary duty.

Shareholders holding large blocks have been the focus of prior research examining the effects of ownership structure on CEO compensation. Our measure of noninstitutional blockholders differs from the measure previously used for owner control (at least one shareholder owning more than 5 percent of a firm’s shares) in that it excludes institutional investors. Noninstitutional blockholders, including family owners and other corporations, are expected to influence CEO compensation to uphold the interests of owners. We found that, like pressure-resistant institutions, noninstitutional blockholders reduced the level of CEO pay. This finding is consistent with prior research showing that the presence of large blockholders reduced pay levels (e.g., Dyl, 1988; Hambrick & Finkelstein, 1995). With respect to the proportion of long-term incentives in CEO pay, however, we found that noninstitutional blockholders had an effect opposite to that of pressure-resistant institutions. This result is consistent with prior findings of a negative
association between long-term incentives and blockholder ownership (Beatty & Zajac, 1994; Mehran, 1995; Zajac & Westphal, 1994). Thus, large blockholders may be reducing the agency conflict by monitoring managerial action themselves (Shleifer & Vishny, 1986). As firms with large blockholders are likely to be adequately monitored, there is less need for their boards to grant long-term incentives to align managers with shareholders. In contrast, institutional investors, who typically have holdings in numerous firms, may not be able to devote much attention to an individual firm. Hence, these investors rely on bonding mechanisms, such as compensation policies, to reduce agency problems. In other words, the nature of ownership may also be an important determinant of the choice of alternate forms of governance devices.

According to agency theory, mechanisms that align the interests of managers with those of shareholders increase the value of a firm (Jensen & Meckling, 1976). Pressure-resistant institutions can reduce agency costs by monitoring and influencing compensation. By decreasing excessive pay, pressure-resistant institutions limit the extent of managerial expropriation, thereby improving firm performance. By fostering long-term incentives, pressure-resistant institutions induce managers to pursue appropriate strategies that benefit shareholders with increased returns and benefit managers with increased long-term compensation. However, it should be noted that if the long-term incentives received by CEOs are provided in addition to their base pay, they may prefer lower-risk strategic choices to protect their base compensation (Wiseman & Gomez-Mejia, 1998). In contrast, restructuring total managerial compensation to include a greater proportion of contingent pay is more likely to lead to desirable actions (Wiseman & Gomez-Mejia, 1998). Hence, institutional investors need to pay careful attention to managerial risk preferences when influencing CEO compensation policies.

Attention also needs to be paid to the various components of long-term incentives. In this study, we included all forms of long-term compensation in one variable. Some scholars have pointed out that the diverse components may not all have similar effects in altering the risk-taking behavior of and the benefits available to managers (Gomez-Mejia, 1994; Gomez-Mejia, Paulin, & Grabke, 1990; Gomez-Mejia & Wiseman, 1997). For instance, some stock options are offered free or at very favorable prices. It is possible that our nonsignificant result for Hypothesis 2b may be due to the aggregation of various components. This possibility provides an interesting avenue for future research.

The differences among institutional investors on CEO pay and the potential performance implications of those differences suggest the importance of understanding the underlying process by which the influence of these owners is exercised in firms (Gomez-Mejia, 1994: 193). Future researchers would benefit by examining the power interplay between managers and institutional investors. What actions do pressure-resistant institutions take to gain power, and how do managers influence pressure-sensitive institutions to support grants of generous CEO compensation?

REFERENCES


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Rahul Kochhar (Ph.D., 1995, Texas A&M University) was an assistant professor of management at Purdue University’s Krannert School until his death in the fall of 1997. In his short tenure as a professor, Rahul established an outstanding research record, having published in outlets such as the *Academy of Management Journal*, *Strategic Management Journal*, *Journal of International Management*, *European Journal of Management*, and *Journal of Financial and Strategic Decisions*. More importantly, Rahul was a caring friend, a trustworthy advisor, and a calming influence during otherwise stressful times. His many coauthors and friends deeply mourn his passing.

Edward Levitas is a doctoral student at Texas A&M University. His current research interests are focused on knowledge diffusion, strategic alliances, and corporate governance.