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**Chief Executive Compensation: A Study
of the Intersection of Markets and
Political Processes**

**CEO Publication
G 88-30 (143)**

Sydney Finkelstein
University of Southern California

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Abstract

A model of the determinants of chief executive (CEO) compensation is presented and tested. Based on a sample from the leisure industry, the study finds that CEO pay has complex links to several factors: firm size, complexity, performance, CEO power, board vigilance, and the CEO's human capital. The study includes a separate examination of CEO salary and bonus, as well as a test of pay determination across McEachern's (1975) ownership categories.

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The compensation of executives, particularly chief executives, perennially intrigues the popular press and its readers. During the proxy season each spring, a flurry of articles can be counted on to feature: lists of the highest paid executives (the "Million Dollar Club"), note of the often modest performance of their firms, and wonderment about board compensation committees. Comparisons to the wages of first-line workers, on the one hand, and to rock stars and professional athletes, on the other hand, abound as these articles probe the question, "Why are CEOs paid so much?"

As a topic of serious research, executive compensation has been primarily the province of economists and finance theorists. Dating from Berle and Means (1932), scholars have been interested in whether executives have a vested interest in maximizing shareholder wealth. They have addressed this question primarily by studying whether compensation is more closely tied to profits or to corporate size. As will be seen below, the findings have been mixed but generally suggest that executives are rewarded to some extent for both.

Although organization and strategy theorists have made periodic contributions to the literature on executive compensation (Kerr, 1985; Mahoney, 1979, Murthy and Salter, 1975; Pitts, 1974; Simon, 1957; Ungson and Steers, 1984), the bulk of new work continues to be generated by economists and finance theorists. This is surprising and disappointing, since students of organizations appear to have much to gain and much to contribute by investigating executive compensation. For example, examination of compensation may be useful in numerous theoretical contexts: executive motivation, executive mobility, executive caliber, strategy

implementation, internal power patterns, attributions of managerial impacts, and organizational symbols.

This paper is intended to serve two purposes: first as encouragement and reminder of the theoretical payoffs and prospects in studying compensation; second, as a presentation of new data about determinants of CEO compensation. In contrast to the journalists' question, "Why are CEOs paid so much?", this paper is interested in why there are differences in how much CEOs get paid, or, "Why do some CEOs get paid so much more than others?" The model of executive compensation that will be presented complements the models of economists. Rather than explain pay in terms of one or two factors, we will propose a wider set of explanatory variables that are of interest to organization researchers. Specifically, we will argue that CEO compensation is determined by a complex web of market and political factors.

The paper also addresses two additional questions of interest to organization researchers. First, can we improve our understanding of the determinants of compensation by looking at salaries and bonuses separately? And, second, how does the distribution of share ownership in a firm affect compensation patterns?

THEORY AND HYPOTHESES

A CEO's compensation is a complex phenomenon merely to observe, let alone to explain. As McEachern (1975) noted, forms of payment to the manager can consist of "income, leisure, the prestige associated with firm size, the working environment, the extent of surveillance by stockholders, or what have you" (p. 58). Even financial income can come in

various forms: salary, cash bonuses, deferred or contingent compensation, stock options, stock appreciation rights, and pension contributions. Since each form of compensation may have very different determinants, any model should carefully specify the types of compensation being considered.

This paper deals solely with cash compensation and its two major components, salary and bonus. These two components are examined separately since we expect that their determining factors may be quite different. For example, separate treatment may help resolve the dilemma about why total compensation often appears to bear little association with corporate performance. Namely, since salaries are set at the beginning of a fiscal year, they will have no necessary relationship to performance for the period. To the extent that salary comprises the major part of total compensation, the link to performance will seem nil. Thus, one finding that could be anticipated with confidence is that corporate performance should be more strongly related to bonuses than salaries. Beyond that, we will not specify separate hypotheses for salaries and bonuses, since the eventual set would be unwieldy and speculative.

The determinants of compensation are no doubt many and complex. At work are industry factors, such as concentration or barriers to entry that can create slack conditions (Williamson, 1963), the managerial labor market, which can affect the supply and demand for executives in an industry, and other external forces, such as product differentiability or industry growth rates, which serve to enlarge or restrict the CEO's discretion (Hambrick and Finkelstein, 1987). The study reported here

attempts to control for such factors by dealing with only one broadly-defined industry; hence, external factors do not explicitly enter into the model tested. There should be little doubt about their importance, however.

In our view, CEO cash compensation is a function of both market and political processes. As mentioned earlier, much work has been done examining the relative importance of profits and size to pay. We will extend this research by specifying two other market factors influencing pay determination: human capital and corporate complexity. The former variable increases a CEO's value in the managerial labor market, and the latter increases his or her worth to the firm.

In addition to market forces, CEO pay depends on political processes. In this respect, agency theory is insightful. Agency theory is concerned with potential conflicts of interest between shareholders and managers. This conflict arises because shareholders' primary goal is to receive maximum returns for their investments, while managers may have a wider set of preferences (Jensen & Meckling, 1976). Watts and Zimmerman (1978) point out that the compensation contract may be viewed as an important means of resolving this conflict. In particular, compensation plans may be designed to maximize shareholder returns by tying pay to performance. For the CEO, this means that the board of directors must structure pay to be performance-contingent.

However, the board is not always powerful enough to do so (Mace, 1971), and powerful CEOs may maximize their earnings. Hence, it could be argued that the balance of power between board and CEO is a major determinant of CEO compensation. Our model (Figure 1) illustrates these

ideas, depicting cash compensation as traceable to both market and political factors. We turn now to a discussion of specific hypotheses.

Insert Figure 1 about here

Market Factors

The effects of corporate size and performance on CEO pay have been so amply explored that the inclusion of these variables here is primarily for model completeness and statistical controls. Thus, only a brief discussion is needed.

There is substantial evidence that firm size is a major determinant of CEO pay (Ciscel, 1974; Ciscel and Carroll, 1980; Fox, 1983; McGuire, Chiu, and Elbing, 1962; Patton, 1961; Roberts, 1959). The rationale for this association is disputed, ranging from greater demands on CEO's, greater ability to pay, and more hierarchical layers in large firms (Fox, 1983; Simon, 1957). However, the association is pervasive:

H1: The larger the firm, the greater the CEO's
compensation.

The effect of corporate performance, particularly profitability, on CEO pay also has been widely explored. Results have varied from nil to strongly positive associations. Murphy (1985) has importantly documented, however, that the typical CEO is rewarded for corporate performance more through his or her own shareholdings in the firm than by cash incentives.

However, an element of cash compensation can reasonably be considered a performance-related reward. Many compensation agreements include such an incentive component. Although these rewards are not always effective in fostering appropriate managerial actions (Rich and Bergsma,

1982), we would expect cash compensation, and especially bonuses, to vary with the economic performance of the firm:

H2: The greater a firm's profitability, the greater the CEO's compensation (especially the bonus).

Corporate Complexity. Even after controlling for corporate size, some CEOs have more complex and demanding jobs than others. These CEOs may command a premium in the managerial labor market, both because of the demands of their jobs and because their own talents are relatively scarce (Agarwal, 1981). While many types of complexity could be considered, (e.g., multinational operations, or a politicized environment) an especially relevant one for CEOs is corporate diversity.

Not only is diversity a form of complexity but it also signifies greater discretion than is possessed by a CEO whose board or who himself is committed to only one industry. The one-industry firm may have closed off deliberations of the strategic question, "What businesses should we be in?", thus precluding a major area of CEO discretion (Hambrick and Finkelstein, 1987). This, in turn, lessens the potential role of the CEO, driving down his potential value and compensation.

H3: The more diverse the firm, the greater the CEO's compensation.

Human Capital. Labor economists rely heavily on human capital models, which emphasize individual investment behavior as a basic factor in explaining pay levels (Becker, 1964; Mincer, 1970). For example, individuals who have made personal investments in acquiring an education should earn a premium over less educated peers. This premium is offered in exchange for superior ex ante training that educated individuals bring to the job and that is presumed to increase their productivity. While

the applicability of the education argument may seem minimally relevant to senior executives who have long made up for any educational deficiencies through accomplishment (another type of human capital), a person's career experience may still well be important. For example, CEOs with long experience in general management tend to develop expertise of greater relevance to the top management task than, say, executives with primarily production or marketing experience. This superior training is expected to command a premium in the managerial labor market for CEOs.

H4: CEOs whose main career tracks have been in general management will earn more than CEOs without such experience.

Political Factors

Organization theorists have long recognized the significance of political processes and power to organizational action (Pfeffer, 1981; Thompson, 1967). Assuming that CEOs prefer more compensation to less, then their ability to obtain more is limited by their power. In this vein, it is widely speculated that some CEOs are often capable of overriding or co-opting their boards of directors (including their compensation committees), and effectively dictating what their own pay will be (Mace, 1971). This interplay between CEO power and board power is influenced by the following four factors.

CEO Tenure. One source of power that may be particularly relevant is managerial tenure. This is because some important bases of power require time to take effect. For example, co-optation of a board can occur because the CEO typically selects the members him- or herself (Mace, 1971); thus, the longer the CEO's tenure, the more the board will consist of his or her own, often sympathetic, appointees. Similarly,

creation of a personal mystique or patriarchy, which may induce unquestioned deference or loyalty, can be expected to occur over time as power becomes institutionalized in the CEO (Pfeffer, 1981).

H5: The longer the CEO's tenure, the greater his or her compensation.

CEO Holdings. A second source of power that is expected to affect compensation is the executive's shareholdings in the firm (Salancik and Pfeffer, 1980). Economists have studied this possibility with generally inconclusive results (summarized in McEachern, 1975). Executives who own significant portions of their firms are likely to control not only operating decisions but board decisions as well. Such executives would thus be in a position to essentially set their own compensation. The case of Victor Posner, as reported by Forbes (1985), illustrates this possibility. Posner owned major portions of three publicly-held firms -- NVF (40% ownership), Pennsylvania Engineering (23%), and DWG Corp. (4%) -- that recorded large losses in 1982 and 1983. At the same time, his total cash compensation as a CEO of the three firms was \$6.2 million (1982) and 10.4 million (1983), higher by far than for any Fortune 500 CEO. Stockholder lawsuits claimed that Posner's level of ownership allowed compensation abuses, in line with our hypothesis:

H6: The greater the CEO's ownership of the firm, the greater his or her compensation.

Alternatively, the question arises as to whether it is in an owner-manager's best economic interest to pay himself extravagantly. On the one hand, money taken out of the firm escapes the firm's own marginal tax rate (typically about 50%) and escapes proportional claims that other shareholders can make on any increase in the firm's value. On the other

hand, there can be advantage in leaving money in the firm, because personal capital gains historically have been taxed at a far lower rate than earned income. A powerful CEO who is in a position to choose would seem to base the tradeoff on three factors. First is his personal preference for current versus later income. The second factor is his expectation of the future growth and stock market multiple that will accrue to money left in the firm. The third factor is his percentage ownership: the higher it is, the smaller the proportional claims of others on the firm's capital gains. The three forces work in concert. For example, Victor Posner owned a substantial portion of the three firms mentioned, but their dismal prospects may have left him pessimistic about capital gains.

However, for the reasons noted, as well as from a desire not to convey exorbitant salary expectations to subordinates, a CEO who owns a substantial block of stock -- and who in turn has the power to pay him- or herself a great deal -- may elect to take modest cash compensation. Thus, we will test for the possibility -- deriving equally from power considerations and an artifact of the tax code -- that CEO compensation and shareholdings are related in an inverted-U manner, with compensation highest in situations of moderate CEO ownership.

CEO's Family's Holdings. In addition to the executive's own shareholdings, the holdings of other members of the CEO's family may provide him power. Namely, the stronger the family's position in the firm, the stronger the executive's position. While family shareholders may not necessarily accept inferior performance, they may not be as watchful as independent directors might be. The executive may have a freer hand in setting his or her own pay level.

H7: The greater the proportion of firm stock owned by the CEO's family, the greater his or her compensation.

Board Vigilance. It has been noted that the board of directors often acquiesces to the wishes of management (e.g., Mace, 1971; Whisler, 1984). In so doing, the board does little to fulfill its formal function of protecting shareholder interest. However, when the board is composed of individuals who themselves hold a significant personal stake in the firm's actions, it is more likely to meet its vigilance role. Such a situation may occur when the board's outside directors are major shareholders or are paid representatives of major shareholders. Under these conditions, the board can be expected to exert tighter control over the CEO.

These directors would have an incentive to control executive compensation, in one of at least two ways. The first possibility is that boards consisting of major shareholders will generally suppress CEO compensation levels. We will examine such a possibility but we believe another, more subtle pattern is more likely.

Namely, we expect that vigilant directors do not suppress CEO compensation as much as they try to tightly link it to the firm's performance. They strive to reward high performance and to penalize low performance, in their own attempt to induce managerial actions aimed at maximizing shareholder wealth (Williamson, 1963).

H8: CEO compensation (especially the bonus) is related to the interaction of profitability and the percentage of stock held by outside directors.

METHODOLOGY

Sample

Data were collected on the chief executives of companies listed under "Leisure" in the Forbes Annual Reports on American Industry, in the years 1971, 1976, 1982, and 1983. These years, which encompass a wide range of economic conditions, were chosen to ensure that any such conditions would not bias the study. Of the 115 company-years of interest, 110 proxy statements were available from the SEC or the companies themselves, which formed the basis for the sample.

The pooled research design is such that a CEO may be counted in the sample more than once if he or she remained in office through two or more years being studied. However, the sample does include 63 different executives. Because we are interested in the cross-sectional relationship between compensation and our hypothesized variables, and because all variables vary from year to year (except the human capital measure), we do not anticipate any threat to internal validity.

The choice of the "Leisure" industry, which includes recreation (e.g., Mattel and Brunswick) and entertainment companies (e.g., Metro-media and CBS), was carefully considered and requires discussion. First, this industry is known for its variability in executive compensation. Thus, we could reasonably be assured of well dispersed scores on our dependent variables. Second, the industry is not thought to be overly homogeneous or mechanistic in its management processes. In contrast to, say, the life insurance industry, where Agarwal (1981) found that size alone accounted for 50 percent of the variance in CEO compensation, we expected companies in the leisure industry not to be prone to formula approaches to compensation. Thus, the sample is biased, but as a first

venture into some of these variables, it made sense to start with a promising setting.

Data was gathered from multiple sources. The COMPUSTAT data base was used for financial data, supplemented by Moody's Industrial Manual. Information on managers' backgrounds was collected from the Dun & Bradstreet Reference Book on Corporate Management, while company proxy statements supplied data on compensation and stock ownership. Standard & Poor's Register of Corporations, Directors and Executives provided SIC codes to measure diversity.

Measures

Compensation. Executive compensation has been measured in a variety of ways. Most typically, total cash compensation has been employed (e.g., McGuire, Chiu, and Elbing, 1962; Patton, 1961). Lewellen and Huntsman used both this measure and a more comprehensive one which included deferred and property income. They found that the simple measure of cash compensation served as an excellent proxy for total remuneration, since the explanatory patterns for the two did not differ. Moreover, they noted that inclusion of deferred and contingent elements of compensation was "a task of major proportions" (1970: 714).

Obviously, excluding stock options or other contingent income tends to seriously understate compensation. To remedy this problem, Murphy (1985) adopted a version of the Black-Scholes (1973) valuation formula for stock options. As Murphy himself notes, the validity of the approach is questionable since the formula is based on the assumption that an external market for stock options exists, an untenable assumption in the case of executive stock options. Moreover, Murphy found no significant predictors of his measure of stock option value, not even corporate

performance. Therefore, while recognizing an inherent deficiency in adopting a compensation measure that neglects deferred remuneration, we employed total cash compensation, consisting of salary, bonus, and miscellaneous earnings such as fringe benefits reported in the proxy.

As noted earlier, a potential contribution of this paper rests with our examination of salary and bonus as separate entities. While the proxies all reported total cash compensation ($n = 110$), only a smaller number reported salary and bonus data separately ($n = 48$). Since the sample spans a number of years, all compensation and other dollar measures were expressed in 1983 dollars (deflated by Consumer Price Index). To reduce heteroscedasticity, the logarithms of all compensation measures were used.

Corporate Size. Firm size was operationalized as the logarithm of total assets (again, in 1983 dollars).

Corporate Performance. To ensure that we were considering profit rates (and not profit size), return on equity (ROE) was taken as our measure of performance.

Complexity. This variable was operationalized as the number of 4-digit SIC codes in a given year. This measure, while lacking the subtlety that would be needed in a study of the strategic aspects of diversity, is straightforward and sufficient for this project (Pitts and Hopkins, 1982).

Human Capital. The CEO's experience in general management was coded as a dummy variable (1-primarily general management experience; 0-other).

CEO Tenure. Tenure was operationalized as the number of years the executive has been CEO.

CEO Holdings. This variable was measured by the percentage of outstanding stock the CEO owned.

CEO's Family's Holdings. Family shareholdings was measured as the percentage of outstanding stock the CEO's family (but not the CEO) owned. Shares owned by the executive's spouse and children were considered part of his or her own shareholdings.

Board Vigilance. This variable was defined as the percentage of stock owned or controlled by outside directors. Since outside directors may be representatives of external organizations that owned stock, it was important to count controlling interests as well.

Data Analysis

Hypotheses were tested primarily through a series of multiple regressions.

RESULTS AND DISCUSSION

In this section we will present and discuss the tests of our hypotheses. Table 1 presents descriptive statistics and correlations for compensation and independent variables.

Among all the independent variables in Table 1, intercorrelations are generally modest ($<.4$), so multicollinearity in the regressions should not be a problem. The only exception is the high correlation ($r = .52$) between CEO tenure and CEO holdings. Some correlation was expected, since owner-CEOs are known to be able to keep their jobs longer than non-owner CEOs (Salancik and Pfeffer, 1980), and since ownership accumulates as a function of tenure. However, such a high correlation was unexpected and meant that, in order to avoid unstable coefficients, CEO

tenure and CEO holdings could not both be included in a single regression. As will be seen, we alternately tested each of these two measures of CEO power in our models.

Insert Table 1 about here

The results of several models for predicting total cash compensation are presented in Table 2. Models I, II and III include CEO holdings as the power measure; Model II adds a squared term to test for a curvilinear effect from CEO holdings; Model III adds an interaction between outside directors' holdings and ROE to test whether the link between ROE and pay is moderated by the outside directors' degree of ownership. Models IV, V, and VI include CEO tenure as a measure of power, and have the same additive features as the first three models.

Insert Table 2 about here

Table 3 presents the results of models for predicting salary and bonus. Due to space limitations, only those models which use CEO holdings as a power measure (I, II, III) are included. The models which used tenure yielded no significant results for that variable and did not change the signs or significance of any of the other predictors.

Insert Table 3 about here

We will now draw from Tables 2 and 3 to discuss the results for each independent variable.

Market Factors

Assets. Firm assets were strongly related to total compensation and salary. Thus, in this sample, CEOs were paid in great part for the size of their organizations. This result was as expected, given the strong support exhibited for the relationship in previous research.

ROE. Firm profitability was positively related to total compensation. However, examination of salary and bonus revealed an interesting pattern: ROE was unrelated to salary but positively related to bonus. As discussed earlier, the lack of a relationship between ROE and salary is to be expected since salaries are set at the beginning of a fiscal year. It is bonuses that drive the pay-for-performance patterns. This result indicates the importance of splitting out the two major components of total cash compensation.

Diversity. It was hypothesized that CEOs who manage diverse firms would earn more for coping with such complexity than would CEOs in more narrowly-defined firms. The hypothesis was not supported for total compensation, salary, or bonuses. It may be that the effect of diversity on pay is reflected in the strong compensation-size association. Given the high correlation between assets and diversity ($r = .40$) such an explanation seems plausible.

Human Capital. CEO general management experience was unrelated to both total compensation and salaries, but strongly positively related to bonuses. One might have expected a somewhat different pattern, with base salary reflecting the greatest payoffs from human capital. After all, the theory of human capital argues that one can count on later rewards from personal career investments. Such assurance would show up in high

base salaries; whereas bonuses imply an element of uncertainty to such rewards.

The exact mechanisms at work cannot be specified from these data, but an examination of an intercorrelation from Table 1 may help shed some light. CEO general management experience is positively related to CEO shareholdings ($r = .18$; $p < .05$). Individuals who founded or inherited their firms could be expected to score high on both these measures; thus, the link between general management experience and bonus levels could be in part a reflection of power accruing to founders/inheritors. However, the data do not suggest this to be a persuasive explanation. Alternatively, it may be that executives with general management experience have the insight and perspective to create abundant bonus systems that affect their own, as well as possibly their subordinates', pay.

Political Factors

The political processes inherent in compensation determination were examined by including three measures of CEO power as well as a variable tapping the board's countervailing power. Results were as follows:

CEO Tenure. This factor was thought to have a positive link with compensation, with pay steadily increasing as the CEO gains and solidifies power over time. Such a pattern was not observed for any of the three measures of compensation (Table 2, Model 4; results not presented for salary and bonus).

Since a monotonic relationship was not found between CEO tenure and pay, the existence of a curvilinear association was investigated. Results indicated that an inverted U-shaped, relationship did exist. For total pay, this finding was relatively strong (Table 2, Models 5 and 6),

with inflation-adjusted pay starting to decline at about 18 years of tenure.

There are two possible explanations for this curvilinear pattern. The first is that power accrues for awhile and then diminishes, due to the CEO's reduced mobility in the managerial labor market, or due to his evolution into a figurehead with one or two younger high-priced executives who carry the actual weight of the CEO's job.

The second possibility is that executives reach a point where they prefer other forms of compensation over current cash. This could occur because of changes in family and financial circumstances, or due to a switch to reliance on stock appreciation and dividends, as the CEO's shareholdings increase over time. This supposition was supported when two sub-samples were examined: a long-tenure low-pay group of CEOs had significantly ($p < .01$) greater shareholdings than a short-tenure low-pay group. Hence, it is not that longer-tenured CEOs are paid less, but rather that the pay mix shifts from cash to stock earnings over time, supporting the notion that personal circumstances influence pay.

In a similar vein, we addressed the role of family circumstance by conducting a second analysis that examined the incremental effect of age on pay.¹ An inverted U-shaped relationship between age and cash compensation was found. This relationship significantly increased R^2 even after controlling for tenure ($F = 10.96$; $p < .01$), suggesting that cash compensation increases with age up to a point (in this sample the point of inflection was at 59 years), beyond which real cash earnings decrease. This pattern of earnings over time is in line with a CEO's need for cash, which tends to drop off as he or she gets older and no longer has major house and child-rearing expenses. This analysis suggests that the CEO's

own need for certain forms of compensation can usefully be included in future explanations of CEO pay.

CEO Holdings. Consistent with the tenure patterns, and as hypothesized, there was a significant inverted U-shaped relationship between CEO holdings and salary ($p < .01$; Table 3, Models II and III). However, results for total compensation and bonus were not significant, although of a generally similar pattern. For salaries, where the curvilinear test added about fourteen points to the R^2 (from .44 to .58), the point of inflection occurred when CEO shareholdings reached about nine percent. Up to that point, increases in CEO ownership seemed to bring increased salaries; beyond that ownership level, salaries dropped. The explanation for the downturn is thought to lie in the (now historic) tax advantages of keeping money in the firm and reaping capital gains instead of current income. However, we believe the reason pay increases with stock ownership up to the nine percent level, as well as why pay increases over the first 18 years of tenure, is due to power: as CEOs gain and solidify power, they are able to extract greater compensation.

CEO's Family's Holdings. It was thought that the shareholdings of the CEO's family might additionally buoy his power and in turn his compensation. However, the results strongly contradicted this idea. The stockholdings of the CEO's family (excluding self, spouse, and children) were negatively related to total compensation ($p < .01$); to salary ($p < .10$ in Models II and III); and neared a significant negative relationship to bonus. Perhaps it is in the family's best interests to keep CEO pay low as a signal to other organizational members to limit their expectations. The CEO and family alike can then receive their returns through capital appreciation and dividends, which are treated favorably for tax

purposes. Additionally, it may be that relatives are especially watchful and exert tight control over the CEO who is himself a family member.

Board Vigilance. We hypothesized that a vigilant board might achieve a stronger relationship between the firm's profitability and CEO pay than would a lax or disinterested board. Operationalized as the percentage shareholdings of outside directors, board vigilance alone (Models I and II) did not have a significant link to any of the three measures of compensation. However, when the interaction between board vigilance and ROE was included (Table 3, Model III), a significant pattern emerged. For bonuses, the interaction between vigilance and ROE was negative ($p < .10$); ROE maintained its positive link ($p < .05$).

This result suggests that vigilant boards lessen, rather than tighten, the pay-for-performance association. That is, boards that might have been expected to encourage superior performance through compensation incentives did not do so in this sample. Among the possible explanations for these results are that (1) vigilant board members who are dependent on CEOs for actions directed toward increasing shareholder wealth may choose to avoid overt control mechanisms such as performance-contingent pay schemes; (2) pay has been tied to long-term performance, which this study would not detect; and (3) vigilant boards may have alternative means to control CEOs, such as through hiring and firing. While it is not possible to identify with certainty which, if any, of these explanations may account for reported results, the following section attempts to shed some light on this issue.

COMPENSATION IN THREE OWNERSHIP CLASSES

We have argued that the balance of power between CEO and board influences pay determination. As we discussed, one way of assessing relative power is to examine shareholdings of non-managers and managers. In this section, we present an alternative method of evaluating the impact of ownership on compensation. Following McEachern (1975), we divided the sample into three ownership classes: (1) owner-managed (OM), where stock ownership was concentrated among a firm's managers; (2) management-controlled (MC), where stock ownership was dispersed among many shareholders; and (3) externally-controlled (EC), where stock ownership was concentrated among a limited number of non-managers. This classification scheme has two major advantages. First, it facilitates consideration of ownership structure rather than individual components. Second, it may help clarify ambiguous results reported earlier on board vigilance. In addition, this analysis replicates and extends earlier work by McEachern (1975).

Of the three ownership classes, we would expect pay to be most tightly linked to profitability for EC firms and least tightly linked for MC firms. McEachern (1975) argued that ownership of externally-controlled firms tied pay to performance to increase a CEO's incentive to maximize shareholder wealth. From our perspective, the board has sufficient power to do so in EC firms; different power configurations in OM and MC firms make performance-contingent pay less likely. By the same token, we would expect boards in EC firms to attend more to market factors than political factors, associating pay with firm diversity, and CEO general management experience. On the other hand, in the MC firms where CEOs are relatively powerful, CEO tenure (and firm size) are likely to be important pay

determinants. Finally, in OM firms, compensation may depend more on CEO preferences or tax considerations, factors which our model do not directly address.

The ownership classes were determined by assessing who had effective control of firm stock. As in the two most recent investigations of ownership and control in firms (McEachern, 1975; Salancik & Pfeffer, 1980), effective control was defined as 4 percent ownership of stock. This cutoff point was deemed sufficient to distinguish ownership categories in both of the earlier studies cited above. Unfortunately, sample sizes were limited by the need to eliminate firms with ambiguous share distributions (i.e., firms where both CEO and outsiders own more than 4% of stock).

Table 4 presents the results of our analysis of pay determination among ownership categories. Pearson correlation coefficients of pay determinants with total cash compensation were reported because of the small sample size. Results were inconsistent with both McEachern (1975) and our prior expectations, although they were in accordance with our earlier results on board vigilance. In particular, ROE was significantly correlated with total compensation in the MC group and not in the EC group. Diversity and CEO general management experience followed a similar pattern. In addition, CEO tenure was correlated with pay in EC firms and not in MC firms. Only firm size followed prior expectations by being correlated with pay in all three categories.

Insert Table 4 about here

One approach to understanding these results is to consider how owners control CEO behavior. In EC firms there is some evidence to suggest that owners control CEOs by selection and retention (Salancik & Pfeffer, 1980). Our data support this view since average tenure of CEOs is significantly lower in EC firms (2.96 years) than MC firms (5.92 years; $p < .01$). Hence, boards of EC firms may not need to tie pay to profitability because CEO tenure is dependent on owners' satisfaction with CEO performance. On the other hand, in OM firms the CEO is a major owner, so the problem of control is not relevant.

In MC firms, ownership is widely dispersed. Under these conditions boards are less likely to be powerful, making it difficult for owners to directly control CEO behavior. However, widely dispersed ownership may facilitate takeovers, which could act as a constraint on excessive CEO pay packages. In addition, it could be argued that MC firms are the most sophisticated ones by virtue of their larger size and diversity, and because they are more often run by CEOs with general management experience.² Rather than being labeled management-controlled perhaps they should be called "professionally-managed" since total compensation reflects all four market factors discussed earlier. In particular, this group is the only one to demonstrate a link between pay and ROE.

Our findings and subsequent interpretation are plausible but inconclusive. Examination of ownership and compensation warrants further study to clarify some of the relationships found. However, together with results reported earlier on board vigilance, this analysis suggests that strong owners may not necessarily tie pay to performance to control CEOs; hiring and firing may be the preferred control mechanism.

CONCLUSIONS

This paper has reported results from a study of CEO compensation undertaken by a desire to expand the limited view typically adopted in such investigations. In particular, issues of concern to organization and strategy theorists, such as managerial power, the role of the board of directors, firm complexity, and human capital, were tested and each found to be significantly linked to at least one of the components of compensation. This bodes well for the inclusion of such factors in future studies of compensation. but perhaps more importantly, the study provides an encouraging view of the prospects for studying executive compensation through an organizational lens.

Overall, the findings paint a complex picture of how managerial pay is set. Although large firms seem to pay more (particularly high salaries), firm profitability (ROE) was significantly related to pay as well. Interestingly, ROE was associated with bonuses, while firm size was not. These results seem to contradict widespread suspicions in the popular press that pay is unrelated to performance (Loomis, 1982).

By examining patterns in different ownership categories, this study expanded our understanding of pay and presented some provocative findings. For example, CEO compensation in management-controlled firms was influenced by size, firm performance, complexity, and the CEO's general management experience. However, in both owner-managed and externally-controlled firms, pay was affected by only size (and CEO tenure in the EC group). These results suggest that the agency relationship between owners and CEOs is very complex and warrants further investigation.

Another contribution of this paper is the separate salary and bonus analyses. Results were not uniform between the two compensation types,

suggesting that salary and bonus have different pay determinants. Future research should focus on yet other forms of pay (e.g., deferred compensations, long-term performance plans), expanding on the limited definition of compensation used in this study.

This study has a number of important limitations. First, as just noted, we did not investigate deferred forms of compensation, such as stock options and long-term performance plans. As a result, we were unable to fully explore the prevalence of pay-for-performance schemes. A second limitation concerned sample selection. Our data was limited to one industry; unexpected results in the analysis of ownership categories suggests that multiple industries be included in subsequent research. In addition, the number of firms providing salary and bonus information, as well as the number of firms that could be unambiguously categorized into one of the three ownership types, limited sample sizes for those analyses. Finally, the moderate R^2 's observed (about .45 for total cash compensation) clearly indicate that future research must eventually incorporate additional variables in attempting to explain CEO pay.

Some of the unexpected results suggest new avenues for future research. For example, both age and tenure exhibited an inverted U-shaped relationship with pay. If our notions on the importance of family and financial circumstances are correct, it opens up a third theoretical perspective upon which to explain compensation patterns, namely, personal preferences. It seems likely that preferences change over time; the extent to which firms can respond to these changes may affect how successful they are in attracting and retaining top caliber managers.

Finally, other researchers may wish to relax our constraint on industry variability. It is well-known that industries differ in their compensation practices (Fox, 1983). However, the factors accounting for these differences has not been investigated. For example, does the level of managerial discretion common to an industry affect total pay? Do industries at different stages of their life cycle exhibit different pay patterns? And do these differing pay patterns influence the types of managers that are attracted to an industry? It is hoped that other researchers will consider some of these questions.

FOOTNOTES

1. We are indebted to an anonymous SMJ reviewer for suggesting this analysis.

2. Selected sample means are as follows:

	OM	MC	EC
Assets	6.34	6.95	5.93
Diversity	5.56	8.68	3.87
CEO General Management Experience	0.17	0.30	0.22

The differences between means of MC firms and both OM and EC firms together are statistically significant at $p < .01$ for Assets and Diversity.

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TABLE 1

Means, Standard Deviations and Correlations of Compensation and Predictor Values

	Mean	s.d.	<u>1</u>	<u>2</u>	<u>3</u>	Correlations							
						<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>
1) Total Cash Compensation (log)	6.10	.59	--										
2) Salary (log) n = 48)	5.72	.49	.48***	--									
3) Bonus (log) n = 48)	3.73	2.69	.62***	-.14	--								
4) Assets (log)	6.28	1.26	.57***	.61***	-.16	--							
5) Diversity	6.30	5.16	.27***	.42***	-.04	.40***	--						
6) ROE	.22	.25	.22**	-.10	.26*	.08	-.08	--					
7) CEO Tenure	11.69	10.52	-.03	.00	.02	-.08	-.04	.00	--				
8) CEO Holdings	.07	.08	-.16*	-.39***	.21	-.31***	-.11	-.02	.52***	--			
9) Outside Directors' Holdings	.05	.12	-.02	-.12	.12	-.09	-.18**	-.04	-.20**	-.13	--		
10) CEO's Family's Holdings	.03	.09	-.32***	-.28**	-.13	-.21**	-.14	.04	.07	.11	-.13	--	
11) CEO General Management Track	.34	.48	.14	.13	.31**	.00	.07	.09	.14	.18**	-.02	-.02	--

*p < .10

**p < .05

***p < .01

TABLE 2

Results of Alternative Regression Models for Predicting Total Cash Compensation

Predictor	Hypothesized Sign	Models					
		I	II	III	IV	V	VI
Assets	+	.49***	.53***	.53***	.49***	.55***	.55***
ROE	+	.18***	.17**	.18**	.18**	.18**	.18**
Diversity	+	.05	.04	.04	.05	.04	.03
CEO General Management Track	+	.12	.11	.13	.12	.10	.11
CEO Tenure	+				.01	.48*	.44*
CEO Tenure ²						-.49*	-.46*
CEO Holdings	+	-.00	.36	.34			
CEO Holdings ²			-.37	-.35			
CEO's Family's Holdings	+	-.22***	-.23***	-.23***	-.22***	-.20**	-.20**
Outside Directors' Holdings	-	-.01	.00	.03	-.01	.03	.05
Outside Directors' Holdings × ROE	+			-.12			-.11
R ²		.420***	.433***	.447***	.420***	.441***	.453***
Increment in R ² (and significance of increment)		n.a.	.013	.014	n.a.	.021*	.012

a n = 110

b standardized coefficients reported

*p < .10

**p < .05

***p < .01

TABLE 3

Results of Alternative Models for Predicting Salary and Bonus

Predictor	Criterion:			Salary			Bonus			
	Model:	I	II	III	I	II	III	I	II	III
Assets		.41**	.53**	.53**	-.31	-.30	-.28			
ROE		-.06	-.04	-.04	.26*	.26*	.27**			
Diversity		.18	.16	.16	.00	.00	-.01			
CEO General Management Track		-.00	-.08	-.07	.41***	.41**	.45***			
CEO Holdings		-.14	1.34***	1.33***	-.00	.05	-.01			
CEO Holdings ²			-1.46***	-1.46***		-.05	-.03			
CEO's Family's Holdings		-.16	-.21*	-.21*	-.18	-.18	-.17			
Outside Directors' Holdings		-.05	.01	.03	-.10	-.09	.09			
Outside Directors' Holdings × ROE				-.04			-.33*			
R ²		.435***	.578***	.579***	.268*	.268*	.338**			
Increment in R ² (and significance of increment)		n.a.	.143***	.001	n.a.	.000	.070*			

^a n = 48

^b standardized coefficients reported

*p < .10

**p < .05

***p < .01

TABLE 4

Correlations of CEO Total Cash Compensation
with Other Variables for Three Ownership Classes

<u>Variable</u>	<u>Owner- Managed</u>	<u>Management- Controlled</u>	<u>Externally- Controlled</u>
	n = 18	n = 37	n = 23
Assets	.50**	.52***	.64***
ROE	.16	.54***	.26
Diversity	.20	.32*	.30
CEO General Management Track	.22	.43***	.01
CEO Tenure	.02	-.07	.36*

*p < .10
**p < .05
***p < .01

FIGURE 1

Determinants of CEO Cash Compensation

