Industry Categories and the Politics of the Comparable Firm in CEO Compensation

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We examine the blending of informational and political forces in organizational categorizations in the context of chief executive officer (CEO) compensation. By law, corporate boards are required to provide shareholders with annual justifications for their CEO pay allocations that contain an explicit performance comparison with a set of peer companies that are selected by the board. We collected and analyzed information on the industry membership of chosen peers from a 1993 sample of 280 members of the Standard and Poor's (S&P) 500. Our results suggest that boards anchor their comparability judgments within a firm's primary industry, thus supporting the argument that boards' peer definitions center around commonsense industry categories. At the same time, however, we found that boards selectively define peers in self-protective ways, such that peer definitions are expanded beyond industry boundaries when firms perform poorly, industries perform well, CEOs are paid highly, and when shareholders are powerful and active.•

Organizations are complex social configurations that can be categorized in many ways. The query, "What kind of organization is this?" has many different answers depending on the context and descriptive purpose of the questioner. Research has shown, however, that certain categorizations diffuse through organizational fields in the form of collectively understood organizational taxonomies and classifications (e.g., Porac and Thomas, 1990, 1994; Reger and Huff, 1993; Abrahamson and Fombrun, 1994; Porac et al., 1995; Lant and Baum, 1995). These taken-for-granted classifications provide a commonsense nomenclature for describing organizational variation and help to make organizational communities sensible and coherent to the actors involved. Thus, for example, when General Motors is defined as an "automobile manufacturer," the company is immediately situated within the competitive context of other similarly categorized firms, such as Ford, Honda, and BMW. Moreover, this category imputes many capabilities, products, and attributes to General Motors and thus provides observers with an interpretive frame within which the activities of the company can be described and understood.

Research on the categorical structure of organizational fields is one outcropping of the general cognitive turn that has been evident over the last decade in the study of interorganizational relationships (DiMaggio and Powell, 1991; Scott, 1995). Cognitive approaches to organizational fields are marked by their emphasis on the importance of social and cultural knowledge in shaping the intersubjective context for organizational action. This emphasis has led some organizational scholars to raise concerns that other aspects of organization-environment relationships, such as power, politics, values, interest seeking, and strategic cooptation, are being overlooked or dismissed by researchers exploring the nature and influence of socially constructed belief systems (e.g., DiMaggio, 1988; Oliver, 1991; Hirsch, 1997; Hirsch and Lounsbury, 1997). Most recently, for example, Hirsch (1997: 1718) argued that cognitive researchers have one-sidedly viewed organizations as "passive collection points" for imposed intersubjective meanings rather than as autonomous

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agents who "actively negotiate or co-opt elements of their environments." Echoing these sentiments, Hirsch and Lounsbury (1997: 415) maintained that organizations are not simply "cultural dopes" that follow taken-for-granted scripts with little awareness but, rather, that they consciously shape and manage their intersubjective worlds in the service of their own political interests. Hirsch and Lounsbury made a strong plea for empirical research on the micro-processes that connect the political with the cognitive bases of organizational fields.

In the case of research on organizational categories, these criticisms are well founded. Past research on the categorical structure of organizational fields has been motivated by the premise that organizational categories are abstract and value-free representations of organizational forms that deterministically impose their structure on interorganizational relationships (e.g., Porac et al., 1995). But cognitive science researchers who have studied the micro-structure of conceptual categories have concluded that categorical knowledge is inherently open-ended and subject to interest-driven manipulations (e.g., Barsalou, 1987). At the organizational level, these manipulations stem from the fact that many organizational categories are laced with considerable political capital. As Gioia and Thomas (1996) noted, how organizations are categorized, by themselves and others, has direct consequences for their ability to acquire resources, mobilize commitment to their strategic agenda, and maintain or enhance their legitimacy in the eyes of stakeholders. The quest for legitimacy is often a search for the "right" group of other organizations against which the focal organization can be compared (Elsbach and Kramer, 1996). Organizations thus have a real stake in the categories that are used to describe their activities, and strategic action must involve a sensitivity to, and a purposeful manipulation of, the categorical representations that give meaning to organizational fields.

Despite the political implications of many organizational categories, however, very little research has explored how politics and categorical knowledge intertwine in the course of organizational action. Our study addresses this gap in the literature by investigating the politics of organizational categories in one very public and contentious organizational context. Specifically, we investigate how corporate boards define comparable firms for the purpose of evaluating managerial performance. Managerial ability is difficult to assess given the complex causes of organizational outcomes (e.g., Bok, 1993). Holmstrom (1982) suggested that this ambiguity requires owners, or their representatives, to factor out performance variance that can be attributed to environmental variables that have similar effects on comparable firms. To decipher the unique contributions of management to the success or failure of a company, performance comparisons must be made with comparable firms facing similar business environments. But what is a comparable firm, and how is similarity defined?

To answer these questions, an organization's essential properties must be identified and categorized. These categorizations, however, are politically very sensitive. Managerial performance and compensation are active concerns to

shareholders, and the fate of top management is at stake in any performance comparison. As agency theorists have noted, management and shareholder interests often diverge (e.g., Jensen and Meckling 1976). Thus, in the context of corporate governance, categorical dilemmas such as "What type of organization is this?" and "Against whom should we be compared?" often invoke the conflicting demands created by management's desire to place an organization's performance in the best possible light and shareholder mandates for informative organizational comparisons that permit a reasonable assessment of managerial accomplishments.

In the modern U.S. corporation, the evaluation of top management falls squarely on the shoulders of a company's board of directors. Corporate boards exist at the nexus of managerial and shareholder interests. On the one hand, directors have a legally prescribed fiduciary responsibility to safeguard shareholder assets, to make informed reports to shareholders on the state of the company, and to evaluate and compensate management in an unbiased way. On the other hand, most directors owe their lucrative board appointment to the management team that nominated them (Lorsch, 1989). They also depend on management for information about the company's business strategy and economic condition. How boards categorize a firm and define comparable other organizations for purposes of managerial performance evaluation is thus subject to both the informational and political forces that the board's dual status entails.

In 1992, the U.S. Securities and Exchange Commission (SEC) explicitly recognized the potential conflicts of interest that could occur because of this dual status by responding to investor demands for more board accountability in executive pay allocations. The SEC enacted new reporting rules that require corporate boards to justify these allocations with explicit performance comparisons between their company and a "peer group" of comparable firms that boards must select on the basis of "line-of-business" similarities with their own firms. These comparisons are then sent to shareholders in proxy statements prior to annual shareholder meetings. The new rules touched off a vigorous round of speculation in the business press about how boards would balance their fiduciary responsibilities to provide informative peer comparisons against the obvious self-protective motivations to make themselves and management look as good as possible (e.g., Lowengaard, 1993). Because these peer comparisons are a rare public outcropping of organizational-level categorical knowledge, they are a naturally occurring venue for studying the politics of organizational categories and how these categories are intertwined with a contentious and significant resource allocation, namely, CEO pay. We exploit this venue in our research by studying how informational and political forces combine to shape the nature of boards' peer definitions.

Organizational Categories and the Politics of CEO Compensation

Given the shareholder logic now being embraced by many institutional investors (Useem, 1993), as well as a number of well-publicized and dramatic cases of managerial compensation abuses (Crystal, 1991), corporate boards have increas-

ingly been structuring managerial pay so that it is contingent on corporate profitability and stock market valuations (Westphal and Zajac, 1994, 1998). These efforts have only partially allayed suspicions that top executives are overcompensated (Crystal, 1991; Bok, 1993). While some studies suggest that high CEO compensation is justified by the important financial impact that top managers have on their firms (e.g., Coughlin and Schmidt, 1985; Murphy, 1985; Jensen and Murphy, 1990), other studies suggest that CEO pay is unrelated to performance (e.g., Kerr and Bettis, 1987) or that CEOs are actually taking advantage of their position by influencing boards to award excessive salaries (e.g., Finkelstein and Hambrick, 1989; Main, O'Reilly, and Wade, 1995).

At the core of this controversy is a fundamental taxonomic problem. Company performance, whether defined by revenue growth, accounting indices, or market returns, is inherently equivocal in the absence of background comparisons with other firms in similar business situations (e.g., Holmstrom, 1982; Alford, 1992). IBM, for example, has been praised recently in the business press for its growth rate of 7–10 percent a year, and its stock has been trading at levels not seen in a decade (Sager, 1996). IBM's CEO, Louis Gerstner, has been singled out as having injected new energy into the company, and his stock options have ballooned in value as the company's market price has soared. But is 7–10 percent annual growth praiseworthy? It depends on the companies with which IBM is compared. As Sager (1996: 155) noted in his positive evaluation of the company, "The 7–10 percent revenue increase that analysts expect from IBM this year may not be much by the standards of, say, Microsoft Corp. or Intel Corp. But the increase of $5 billion is huge—equivalent to adding another Dell Computer in revenues." IBM is a large and decades-old high-technology company. When evaluating its performance, should IBM be compared with other high tech companies, with other large companies, or with other old companies? Because any such comparison must be based on a categorization of a company's core attributes, the debate over CEO salaries fundamentally involves categorical knowledge and the role it plays in defining an interorganizational context for performance evaluations.

Scholars who have studied CEO pay over the years have uncovered substantial evidence that corporate boards do, in fact, incorporate categorical knowledge into their compensation allocations. Specifically, boards seem to rely on industry categories to interpret company and CEO performance. Antle and Smith (1986) observed, in a sample of 39 firms from three industries, that boards partialled out systematic industry risk, defined at the 2-digit Standard Industrial Classification (SIC) code level, in evaluating the performance contributions of their CEOs. Similar results have been reported by Gibbons and Murphy (1990) and Miller (1995). Kerr and Kren (1992) found evidence, in a sample of 62 companies spanning 25 industry groups, that boards consider the uniqueness of corporate-level strategies as compared with industry peers. Kerr and Kren reported that CEO pay was more highly related to performance when companies exhibited research and development and advertising expenditures that differed from those of other industry members.

The tendency for boards to use broad industry categories to interpret managerial performance is consistent with evidence suggesting that industry representations cohere around organizational attributes that have high informational content (Porac et al., 1995). But board use of industry categories is far from universal, and critics have charged that political influences enter into managerial pay allocations partly through the strategic manipulation of comparison groups. In his exposé of corporate compensation abuses, Crystal (1991) argued that top managers highlight the performance measures on which their companies do well and pressure captured board members and compensation consultants to select peers that put their companies' chosen performance dimension in a positive light.

Suspicions about the neutrality of peer comparisons have been fueled by the fact that, until recently, these comparisons were not made public. As Miller (1995: 1382) noted, many of the political issues surrounding CEO pay "might be mitigated by making the referents and methods used for salary increases explicit." It was exactly this reasoning that induced the SEC to alter proxy reporting requirements in 1992. The SEC's new rules took effect in January 1993 and require boards to disclose all elements of top management's compensation in a standardized form. Boards are also required to describe the compensation setting process and to justify pay allocations by enumerating the criteria that were used in setting executive salaries in a given year. Finally, boards must also provide a performance graph that compares their companies' five-year cumulative stock returns against both a broad market index (e.g., S&P 500) and a selected peer group of comparable firms. All of this newly required information is designed to clarify for shareholders the compensation philosophies, strategies, and comparison groups that are involved in salary deliberations.

Research on organizational symbolic management, however, suggests that this goal may be somewhat elusive. Organizations have been shown to be quite ingenious in packaging their accounts and rationalizations for delivery to external constituencies. Explanations for corporate performance are carefully worded to deflect blame from management (Bettman and Weitz, 1983; Salancik and Meindl, 1984) or to appear consistent with normative standards of organizational conduct (e.g., Westphal and Zajac, 1994; Zajac and Westphal, 1995). Negative information is downplayed (Abrahamson and Park, 1994), and obfuscating language is sometimes used to create semantic ambiguity (McGuire, 1995). The effectiveness of these symbolic manipulations seems to depend on the nature of the audience that is being addressed (Elsbach, 1994). This makes the presentation of compensation policies and peer groups less a question of providing an accurate window into the corporate mind than it is the construction of a negotiated and acceptable cognitive order between corporations and their constituencies (Ginzel, Kramer, and Sutton, 1992).

Board Comparability Judgments: Examples and Research Hypotheses

The sensemaking that underlies this negotiated order takes place within the context of information gathering and deci-

sion making by a company's board of directors. Lorsch's (1989) investigation of board decision procedures suggests that most of the fact gathering for board policies is undertaken by one or more of a board's various committees. In most public companies, executive compensation is the responsibility of the board's compensation committee. The compensation committee consists of outside directors with no employment ties to the company. It is this committee that surveys market compensation levels, establishes performance benchmarks and salary policies, and evaluates management's performance against financial and nonfinancial goals. These activities, however, are usually conducted within earshot of a company's top management and often depend on management's cooperation in providing background information and advice (Crystal, 1991).

The SEC mandate for explicit performance comparisons presented an opportunity in 1993 for compensation committees to publish a performance-relevant categorization of their firms to shareholders and informed observers. Anecdotal evidence from the proxy reports filed by these committees suggests that some committees responded carefully to this opportunity, others perfunctorily. Some boards consulted company personnel at length and some did not. Some used existing classification systems to construct peer comparisons, others created their own. Some discussed their peer comparisons in great detail, others hardly at all. Finally, some wrote explicit justifications for their peer selections, others provided only company names and numerical comparisons.

For example, figures 1 and 2 provide the 1993 peer-comparison charts of Kroger Corporation and Capital Cities/ABC, respectively. Cumulative year-end returns in the graphs consist of both dividends and capital gains accumulated and reinvested over time from a $100 base investment in the company in January 1988. Both companies used as their broad market index the Standard and Poor's 500. Kroger's board chose the S&P retail food group for its peer comparisons. The company's five-year cumulative return of $352 compares quite favorably with the S&P 500 and also with the comparison group's return of $324. Because all members of the S&P retail food group are within the same 2-digit SIC code as Kroger, the board's comparability judgment reflects a strong industry bias.

ABC, in contrast, performed much more poorly than the S&P 500. The ABC board selected a "custom" peer group that it defined as "other advertiser supported media and entertainment companies," which consisted of CBS, Dow Jones & Company, Gannett Company, the Tribune Company, and the Washington Post. Only one of these companies, CBS, is in the same primary 2-digit SIC code as ABC. The company's five-year cumulative return of $148 is much lower than the return for its 2-digit industry ($258) but compares favorably with its custom peer group's return of $146. Interestingly, the ABC board also presented (not reproduced in figure 2) an additional graph that showed cumulative returns for the company and its peer group over the previous *ten* years. ABC fares even better in this second comparison.

Figure 1. Comparison of five-year cumulative total market return for Kroger, S&P 500 index, and S&P retail stores-food chains group.

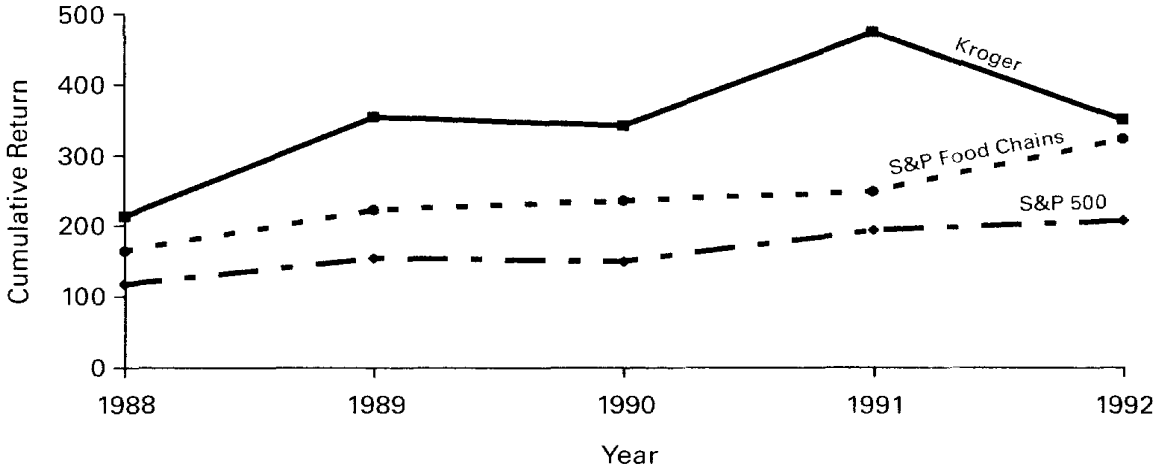
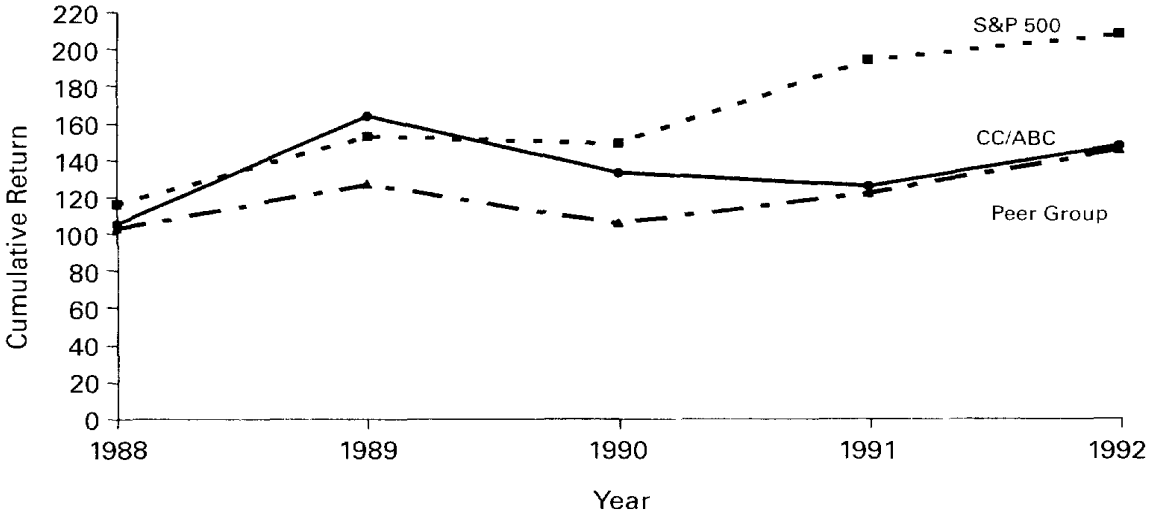


Figure 2. Comparison of five-year cumulative total market return for CC/ABC, the S&P 500 index, and custom peer group.



Variations in peer comparisons such as these seem to be a result of an intermingling of the informational and political forces bearing down on corporate boards. Explicit peer comparisons were mandated by the SEC with shareholders in mind. The important political and informational forces operating on these comparisons, as well as any symbolic manipulations that are designed to manage these forces, are thus driven by the company-shareholder relationship. We present a series of hypotheses below designed to uncover these forces and suggest how political and informational influences control boards' comparability judgments.

Informational aspects of peer comparisons. Previous studies suggest that commonsense knowledge about industry boundaries is an interpretive core around which boards define comparable peers (e.g., Antle and Smith, 1986; Gibbons and Murphy, 1990; Kerr and Kren, 1992; Miller, 1995). Industry categories based on product and market attributes are diagnostic of many underlying aspects of a firm's business situation (e.g., Abell, 1980; Porac et al., 1995). From a cat-

egory-matching perspective, the firm's primary line of business generates many attributes that can be attached to the firm's primary industry category. As social psychological research has shown, people seek comparisons on diagnostic performance-related attributes when attempting to make sense of ambiguous performance cues (e.g., Suls and Miller, 1977; Wood and Taylor, 1991). To the extent that boards and shareholders seek comparisons against informative peers, industry categories reflecting line-of-business attributes should be perceived as plausible and legitimate. Moreover, the legitimacy of industry categories is bolstered by deeply ingrained formal classification systems (e.g., SIC codes, S&P indices, etc.) that provide a ready-made nomenclature for comparability judgments. The familiarity and acceptability of such classifications should bias shareholders and boards toward viewing them as normatively correct categorizations, a bias that was strengthened by SEC rules suggesting that line-of-business peers are most acceptable. These arguments suggest the following:

Hypothesis 1 (H1): Boards generally choose comparison peers from within their company's primary industry.

To comply with the 1992 SEC reporting rules, boards are required to include within their company's proxy statement a "Report of the Compensation Committee" that outlines the criteria used in a given year to set CEO pay levels. In discussing these criteria, boards have the discretion to include rationalizations that invoke their peer-performance comparisons. Because industry definitions of comparability are legitimate and diagnostic of a firm's activities, the extent to which boards highlight peer comparisons in their rationalizations for CEO pay should at least partially depend on the composition of their chosen peer group. Abrahamson and Park (1994) found that negative company information is often downplayed and concealed in corporate reports. Because peer comparisons outside a firm's primary industry are less diagnostic and legitimate, boards should view them as politically sensitive and seek to deflect attention away from them. This leads to the following hypothesis:

Hypothesis 2 (H2): Boards who choose peers from within their firm's primary industry will discuss these peer comparisons more than boards who choose peers from outside their firm's primary industry.

Because of the natural tendency to concentrate peer comparisons within understood industry boundaries, comparisons with peers outside a firm's industry is prima facie evidence that boards are trading off informational for political motivations. As Elsbach and Kramer (1996) observed in their study of business school identities, political threats are often dealt with by expanding or changing an organization's comparison group. When evidence of this occurs in the context of peer-performance comparisons, it is a reasonable inference that something about a firm's business situation is impelling the board to risk undermining the credibility of its comparisons by expanding its definition of comparability beyond industry boundaries. The organizational literature suggests that three different sets of variables are plausible candidates for influencing the magnitude of this expansion: firm and industry performance, CEO salary, and shareholder activism and power.

Firm and industry performance. One very important source of threat in this situation is a firm's performance relative to its industry. When performance comparisons place a firm in a negative position relative to industry peers, boards should seek broader comparisons and expand their definition of comparable firms (e.g., Wood and Taylor, 1991; Elsbach and Kramer, 1996). Moreover, when boards do expand their comparisons beyond an industry self-categorization, they should do so to choose lower-performing peers. This reasoning suggests the following three hypotheses:

Hypothesis 3 (H3): The higher a firm's performance, the greater the number of peers its board will select from within the firm's primary industry.

Hypothesis 4 (H4): The higher the performance of a firm's primary industry, the fewer peers its board will select from this industry.

Hypothesis 5 (H5): The greater the number of peers selected from outside a firm's primary industry, the lower the average peer-group performance.

CEO salary. Managerial advocates argue that high CEO pay is justified when tied to the creation of shareholder value (e.g., Jensen and Murphy, 1990). This logic holds that high CEO pay should be an indicator that the company is doing well and contributing to the wealth of its owners. At the same time, however, CEO pay has gotten so high that even shareholders are becoming uncomfortable with it. In the words of one shareholder activist, CEO pay "has reached Marie Antoinette proportions. People are getting disgusted with it" (Lublin, 1996: 1). Given increasing resistance to high CEO pay levels, a performance logic based on shareholder value should demand equally high levels of company performance when a CEO is paid well.

The 1992 SEC reporting rules ensure that shareholders have clear and detailed salary information. This makes it much easier for shareholders to assess any pay-for-performance linkage, thereby increasing the salience of company performance graphs and their peer comparisons. Within this newly opened disclosure process, high CEO salary is a potentially explosive issue. Boards can reduce salary levels to respond to this threat, but it is much easier for them to broaden their interorganizational comparisons outside of an industry category and seek out lower-performing peers that can be justified on other grounds but that make a company's own performance look good. Thus, all else equal, we hypothesize:

Hypothesis 6 (H6): The higher the pay of a firm's CEO, the greater the number of peers its board will select from outside the firm's primary industry.

Shareholder activism and power. The characteristics of a company's shareholders are an important determinant of the political threat that any public performance comparison might pose to the company's board and management. Ginzel, Kramer, and Sutton (1992) argued that symbolic manipulations designed to manage external relationships are always embedded in a reciprocal influence process between organizations and their stakeholders. Thus, shareholder characteristics—e.g., how antagonistic owners are toward both the board and management, how knowledgeable they are, etc.—should influence boards' comparability judgments by height-

ening or diminishing any threat posed by shareholder opinions. Two such characteristics we assess here are shareholder power and shareholder activism.

Two opposing explanatory scenarios relating these characteristics to board comparability judgments are plausible. The first is derived from the agency perspective on corporate governance (e.g., Jensen and Meckling, 1976; Eisenhardt, 1989). Fundamental to agency theory is the fact that ownership in large corporations is dispersed and uncoordinated (e.g., Fama, 1980). Historically, this fragmentation has given management an advantage in corporate affairs and has encouraged boards to defer to management in their pay allocations. Recently, however, management-shareholder relationships have been marked by an increasingly active and vocal role for shareholders. Useem (1993) suggested that this activism is a result of increasingly concentrated ownership as large institutional investors have become major players in stock transactions. Outside owners with large stakes in companies typically are sophisticated investors with good access to information both within and outside the company. Thus, large investors are not easily manipulated by company persuasion campaigns. Useem argued that concentrated ownership has transferred power to shareholders and has led to more shareholder activism, even among small investors, and greater corporate accountability to shareholder concerns. In the context of board comparability judgments, this suggests that powerful, informed, and active shareholders should have more information about a company's performance, product mix, and industry membership than less powerful and less informed shareholders. They should also be more sophisticated in evaluating company and managerial performance and thus be more inclined to seek diagnostic and legitimate peer comparisons. To the extent that diagnostic comparisons are grounded in industry-based categories, this reasoning leads to the following two hypotheses:

Hypothesis 7a (H7a): The more powerful a firm's outside owners, the greater the number of peers its board will select from the firm's primary industry.

Hypothesis 7b (H7b): The more active a firm's outside owners, the greater the number of peers its board will select from the firm's primary industry.

In contrast to these predictions from agency theory, the relationship between boards and owners may be loosely coupled at best, giving boards considerable discretion in their comparisons even in the face of powerful owners. If this is the case, the evaluative threat posed by powerful and active owners may be dealt with not by providing more diagnostic peer comparisons, but by expanding these comparisons beyond industry boundaries in an effort to protect management's and the board's interests. Research in social psychology suggests that under conditions of evaluative threat, individuals make downward comparisons to others who perform more poorly on the dimension of interest (e.g., Wills, 1981) and/or select performance referents that are more dissimilar on important related attributes (e.g., Wood and Taylor, 1991). This line of work thus suggests the following counter hypotheses to H7a and H7b:

Hypothesis 8a (H8a): The more powerful a firm's outside owners, the fewer peers its board will select from the firm's primary industry.

Hypothesis 8b (H8b): The more active a firm's outside owners, the fewer peers its board will select from the firm's primary industry.

METHOD

The sample used for this study is drawn from the companies that made up the S&P 500 index at the beginning of 1993, the first year in which proxy statements based on the new regulations were available. Restricting our sample to members of the S&P 500 standardized the market benchmark against which companies were compared. Proxy statements for 1993 reported on company affairs during 1992. Using the first year of reporting under the new rules is particularly informative, since there were no precedents at the time for public performance comparisons in this context, and a great deal of ambiguity existed concerning rule interpretation. The original sample included the 366 companies out of the 500 that had a fiscal year end of 12/31/92. Missing data reduced the final sample to 280 companies. Companies with a calendar year end were chosen so that five complete years of shareholder returns would be included in all comparisons and to avoid any problems that might arise from varying fiscal years, such as significant changes in the market during the nonoverlapping portions of the performance periods. T-tests on a number of key organizational attributes such as size, profitability, diversification, and stock market volatility revealed no significant differences between our sample and the S&P 500 as a whole.

Theoretical Variables

Industry self-categorizations. To test hypotheses 1, 3, 4, 6, 7a, 7b, 8a, and 8b we defined industry self-categorization as the number of companies in a peer group that had the same 2-digit SIC code as the board's own company. The 280 firms in our sample spanned 48 different 2-digit SIC codes. The 2-digit categories represented in our sample included such industries as pulp and paper, air transport, food stores, drugs, and printing and publishing. To test H5 and be consistent with its directional prediction, we constructed a complementary variable that was defined as the number of selected peers whose 2-digit industry membership was different from the board's company. We obtained SIC codes for all peer companies from the 1992 COMPUSTAT database. When a board chose a published industry index (e.g., a Dow Jones or S&P industry group) as a peer, we identified all of the companies within the chosen index and obtained their primary SIC codes from COMPUSTAT. Companies included within the COMPUSTAT database regularly provide SIC code classifications for their major lines of business together with the percentage of sales that took place in a given SIC category. Our measure of a peer company's industry membership consisted of that company's 2-digit SIC category with the highest percentage of company sales. Twenty-eight boards selected multiple peer groups. In these cases, industry membership was computed using all companies present in all of the groups. We controlled for the number of peers and peer groups in our subsequent analyses.

Comparable Firm

The Standard Industrial Classification is a widely used and accepted industry classification system (Clarke, 1989). It is the best secondary source for categorizing companies into industry groups and thus is a useful archival and unobtrusive measure of industry self-categorizations. SIC codes can range from one to seven digits, with each additional digit representing a finer industry delineation. Past research on stock valuation has found that the 2-digit level captures most of the systematic industry variation in stock prices and that finer industry delineations provide very little additional information (Clarke, 1989; Alford, 1992). Moreover, evidence suggests that corporate boards make industry performance comparisons at the 2-digit level (e.g., Antle and Smith, 1986; Gibbons and Murphy, 1990).

We assume in our measure that a board's performance comparison is anchored in an industry category to the extent that its chosen peer group consists of many other firms from within the same 2-digit SIC category as the board's own company. Conversely, when few peers are from within the same 2-digit category, we assume that boards have expanded their comparisons beyond category boundaries. We are not suggesting that board members have a complete cognitive representation of the SIC coding system. SIC codes are constructed by knowledgeable observers to summarize well-understood technological and market similarities among firms. As such, they represent the prevailing common knowledge about industry boundaries Our measure assumes that boards have some understanding of this common knowledge and that their industry self-categorizations bear similarities to corresponding SIC categories. The fact that our SIC category data were provided to COMPUSTAT by the companies themselves reinforces this unobtrusive measure of self-categorization.

Peer-group performance. To test H5, we defined peer-group performance as the average five-year total shareholder return of all peer groups reported in the performance graph of a company's 1993 proxy statement. Our measure represents the value on 12/31/92 of $100 invested on 1/1/88 in the stock of the companies comprising a focal company's peer groups. Annual returns for each peer group were calculated as the total return (stock price change plus reinvested dividends) weighted by the company's market value for a given year. Verification of these returns for a subsample of companies using COMPUSTAT data indicated that the graphical presentation was quite accurate. When firms presented graphs for only one peer group, this measure represented the five-year return of that peer group.

Peer discussion. To test H2, we measured the amount of peer discussion by counting the number of sentences within the "Report of the Compensation Committee" section of a company's 1993 proxy statement that contained any reference to peer companies. Collapsed across all firms in our sample, the complete text corpus consisted of a total of 12,500 sentences (mean = 42.8 per company). To facilitate and simplify our analysis of this large textual database, the specific words and phrases that we counted as peer references were developed and measured using computerized content-analytic techniques. We followed Fan (1988), Dyer

(1994), and others who have constructed automated content-coding schemes to detect frequencies of high-level "concepts" in naturally occurring text. Concepts such as "peer companies" can be considered type abstractions extending over several different, but conceptually synonymous, lexical items of greater specificity. The category "peer companies," for example, subsumes such items as "competitors," "peers," "similar companies," and "comparison group." These items are equivalent, given their common membership in the class defined as "peer companies." This equivalence justifies counting an instance of each lexical item as an instance of the more abstract conceptual category.

Following Fan (1988), we defined a "peer companies" category and then used an iterative procedure to clarify its membership rules. On the basis of theoretical and intuitive criteria, we first created a starting membership array for the category by listing words and phrases that a priori seemed to be synonymous with "peer companies." Using various text indexing and search programs, we tested these initial definitions by conducting searches on each lexical phrase to understand how it was used in specific sentence contexts. Although these searches were intuitive and qualitative, they allowed us to winnow out words and phrases whose meanings were only infrequently subsumed by the coding category and to identify other words and phrases that were direct or indirect category markers.

We then used these refined membership definitions as input into Miller's (1990) VBPro content analysis package. VBPro accepts category membership lists and searches a text corpus for member words and phrases. One output from a VBPro run is a listing of all the text containing a target concept. We used this text output to validate our definition of the peer category. By manually comparing the sentences that contained peer references with the complete text for random 10-percent samples of companies, we were able to determine the number of concept hits (where the automated coding scheme detected an occurrence of the peer category that was actually present), the number of misses (where the coding scheme did not detect a category occurrence that was actually present), and the number of false hits (where the coding scheme detected an occurrence that was not actually an occurrence of the peer category). Inspecting hits, misses, and false hits is a viable and acceptable technique for validating the accuracy of automated text analysis (e.g., Lehnert and Sundheim, 1991). Complete accuracy in automated text analysis is hard to achieve (Lehnert and Sundheim, 1991), so we defined an acceptable error level as an 80-percent hit rate (total hits/total actual occurrences) and a 5-percent false-hit rate (total false hits/actual occurrences) and assumed that any misses were random. Through iterative manual comparisons on different portions of our text corpus, we were able to clarify the specific words and phrases that indicated the usage of the peer concept until an 85.45-percent hit rate and 1.45-percent false-hit rate had been achieved. A complete final list of the words and phrases that we used to identify instances of the peer category is presented in table 1. The second type of output

from a VBPro run is the frequency of a target concept in each sentence or paragraph. We coded the frequencies of the peer category by sentence and defined as our peer-discussion dependent measure the number of sentences in a given proxy statement that contained at least one instance of the peer category as defined in table 1.

CEO compensation. We incorporated two major components of CEO compensation into our regression models. First, CEO *annual pay* was operationalized as the sum of a CEO's 1992 base salary and bonus as reported in the company's 1993 proxy statement. Annual pay was logged so that extreme values would not bias the results. We also operationalized *long-term compensation* as the logged gain realized by the exercise of any stock options or restricted stock by the CEO in 1992. These amounts were also obtained from the 1993 proxy statements.

Company performance. Company performance was operationalized using two indices. First, we computed the log of the *five-year total shareholder return on the company's stock* for the period 1988–1992. Total shareholder returns were obtained from the company performance graphs using the same methods as described for obtaining peer-group performance. Second, we computed the *average annual return on assets* from 1988 through 1992. Accounting returns were obtained from COMPUSTAT data.

Industry performance. To measure industry performance, total annual return and market capitalization data were collected from COMPUSTAT on all firms for each 2-digit SIC code represented in our sample. The 1988–1992 five-year

Table 1

Words and Phrases Counted as Instances of "Peer Reference"

competitor
competitors
competitor's
peer
peers
companies
organizations
firms
corporations
other employers
comparable employers
similar employers
index
indexes
indices
comparison group
comparable group
dow jones
s&p
s & p
poor's

Note: The words "companies," "organizations," "firms," and "corporations" are nonspecific to peers, but our analysis of the proxy text suggested that they occurred very infrequently in uses other than to describe peer companies. Thus, we deemed them to be important peer-reference items. Conversely, the word "industry" was used in many different contexts and only infrequently to describe peers. For this reason, we deleted it from the list of defining lexical items.

performance of each industry group was calculated using the method specified by the SEC in CFR 229.402.1 (1993). To estimate industry performance for a given year, each company's total annual performance (percentage change in value, including reinvested dividends) was weighted by its market capitalization for that year. A company was excluded from a year's calculation if its market value or total return information was missing for that year. These weighted values were then summed and divided by the total market capitalization for the entire industry to arrive at each industry's annual performance. The five annual performance measures were then used to calculate the value of a $100 investment in the industry over the previous five years.

Ownership power. We operationalized owner power as a dummy variable coded 1 if there were any outsiders listed as significant shareholders in the 1993 proxy statement, and a 0 otherwise. A significant shareholder was deemed to be anyone who controls 5 percent or more of the company's outstanding common stock. If an individual or organization controls 5 percent or more of a class of stock, the extent and purpose of the holdings must be disclosed in a Schedule 13(d) filed with the SEC. Equating ownership power with large outside holdings is common in previous studies on corporate governance and CEO compensation (Westphal and Zajac, 1994; Main, O'Reilly, and Wade, 1995). Consistent with SEC regulations, an outsider was defined as any individual or group who (a) is not currently, nor has ever been, a member of management, (b) is not engaged in any legal or consulting activities with the company, and (c) is neither a member nor a descendent of the company founder's family, nor the representative or beneficiary of a foundation, trust, or other legal entity set up in the family's name.

Shareholder activism. This variable was defined as the number of resolutions presented by shareholders that were to be voted on at the 1993 shareholder meeting, as listed in the company's 1993 proxy statement. Larger numbers of shareholder resolutions are indicative of greater levels of shareholder activism. Useem (1993) observed that the number of shareholder resolutions has increased in recent years, as have the percentage that have eventually been adopted by the board of directors. Useem argued that this is evidence for increased shareholder activism and vigilance over management.

Control Variables

Peer-group controls. Because our measure of peer-group categorization is a simple sum of companies in the same 2-digit SIC category as the focal company, we included controls for two variables that are related to our industry categorization measure but that are irrelevant to our hypotheses. First, we included a control variable for the *number of companies that a board included in its peer comparisons,* defined as the total number of companies included in all of a focal company's peer groups. Second, we included a control variable for the *number of peer groups* that were listed by each company. The 1992 SEC requirements did not rule out using multiple peer groups. To control for this, we included a

dummy variable that was coded 1 for those firms that presented multiple graphs, and 0 otherwise.

Company characteristics. We controlled for *company size,* defined as the log of the company's total assets in 1992. Total assets is a commonly used proxy for firm size. Because stock returns are an important component of our analysis, we also included a *market risk* variable to control for variation in stock returns that are due to a company's inherent stock price volatility. Market risk was represented by the company's beta. Beta is an often used measure of nonsystematic risk and represents the average change in a company's stock price in response to a one-unit change in the market (e.g., Brealey and Meyers, 1988). The larger a company's beta, the more volatile its stock, and the more risky the stock is as an investment. We also controlled for *company diversification,* since the degree to which a company's business crosses several different industries is an obvious influence on the industry self-categorizations of the company's board. Diversification was measured by calculating the percentage of a company's sales within the company's primary SIC code during 1992. We defined a company's primary industry as the 2-digit SIC code in which the largest percentage of the company's sales occurred. It is also the principal industry with which the company is identified. We obtained these percentages from the 1992 COMPUSTAT database.

Industry size. The size and composition of a board's chosen peer group may reflect the size of a firm's primary industry. The larger the industry, the greater the diversity of member firms and the larger the pool of industry-based peers from which to select a comparison group. To control for any effect of industry size on peer-group composition, we computed the total number of companies in a company's 2-digit SIC category that were included in the COMPUSTAT database during the period 1988–1992. This included companies listed in COMPUSTAT's primary database, as well as the supplementary research file, which included data on companies that have merged or gone out of business and are therefore no longer listed in the primary data file. Research file companies were deleted if they were missing both market capitalization and total return data for the entire five-year period. In all, 8,336 companies were used in determining the size of the 48 industry categories, and industry size ranged from 6 to 966 companies. Because of the wide range in industry sizes, this measure was logged to reduce the effects of extreme values in the analysis.

CEO tenure. CEO tenure was defined as the number of years the CEO had held his or her current position as of 1992. Even in the face of significant outside ownership, if a company's CEO has held his or her post for many years, he or she may be more immune to outside control and may unduly influence board decisions and policies. Controlling for CEO tenure eliminates any confounding effect of CEO power.

Board power. A number of studies have shown that the power of a board relative to both management and shareholders is an important factor in predicting the board's deci-

sions on executive pay (e.g., Finkelstein and Hambrick, 1989; Main, O'Reilly, and Wade, 1995). To control for any such effects, we included two measures of board power. First, we coded for *whether the board of directors had staggered reelections.* A company has a staggered board when only a portion of the board members, rather than the entire board, goes up at any one time for reelection by the shareholders. Many institutional investors have claimed that staggered reelections allow the CEO to fill the board with loyalists who will protect the CEO's interests at the expense of shareholders. This variable was coded 1 if a company had a staggered board, and 0 otherwise. Second, we measured the *size of the board,* defined as the number of active directors in 1992. Pearce and Zahra (1992) suggested that larger boards are more responsive to shareholder interests and constrain management's efforts to manipulate board decisions. Our measure of board size controls for any size effect on a board's peer definitions.

Length of proxy statement. To test H2, we controlled for the length of the section in the 1993 proxy statement in which any peer comparisons were discussed. We operationalized this variable as the total number of sentences in the "Report of the Compensation Committee" section of the 1993 proxy statement.

Analysis

We used ordinary least squares (OLS) regression for all of our analyses. Our self-categorization and peer-discussion dependent variables are discrete count data, and the Poisson distribution is often a better description of such data than the normal distribution because of the presence of large numbers of zeros and/or small value counts (Greene, 1993). For this reason, Poisson regression is often used in estimated models predicting count variables. Our data, however, consist of nonindependent events in the sense that boards presumably selected peer companies, and their words on the proxy statements, in *sets* rather than individually. This nonindependence complicates the interpretation of our data as discrete counts. Moreover, in preliminary analyses we determined that our self-categorization and peer-discussion variables better fit a normal than a Poisson distribution. Thus, the nature and distributions of our data dictated the use of OLS regression.

RESULTS

Informational Hypotheses

Table 2 provides the means, standard deviations, and intercorrelations for all the variables included in our analyses. The peer groups chosen by company boards show a strong bias toward index groupings that are published by various business-rating organizations. Of the 280 boards in our sample, 27.5 percent chose their company's S&P industry index for peer comparisons. Another 19.6 percent chose some other published index, such as those provided by Dow Jones. Thus, 47 percent of the boards chose one published index as their company's peer. Another 28.6 percent of the boards chose at least one S&P composite index or at least two published indices that were then combined by the boards them-

selves. The remaining 24.3 percent of the boards used an idiosyncratic group of peers consisting of individual companies selected by the boards themselves.

The average size of peer groups was 19.55 firms (s.d. = 20.23). Even for peer groups that were constructed using published indices, there was substantial variability in the number of peers that were in the same 2-digit SIC industry as a board's company. On average, however, 69 percent (s.d. = 35 percent) of the firms in a company's chosen peer group were in that company's primary industry, lending strong support to H1. This conclusion is reinforced by the additional finding that 41 percent of the sample chose all of their peers from within the same primary industry. Choosing all peers from within the same industry was the most frequent peer-group construction, with the next most frequent being the choice of all but one peer from within the same industry (11.4 percent). Thus, the boards in our sample had a clear bias to anchor their peer comparisons in their company's primary 2-digit industry.

Boards could expand their definition of comparability beyond 2-digit boundaries by choosing published groups that had

Table 2

Means, Standard Deviations, and Intercorrelations for all Variables*

Variable	Mean	S.D.	1	2	3	4	5	6	7	8
1. Board size	12.74	3.38								
2. Staggered board	0.58	0.49	.11							
3. CEO tenure	6.96	7.06	.03	.02						
4. ln(Total assets in 1992)	8.72	1.43	.58	−.06	−.04					
5. % Business in primary SIC code	83.70	21.61	.05	−.18	−.01	−.01				
6. Total number of peer companies	19.55	20.23	.20	−.12	−.04	.29	06			
7. Multiple peer groups	0.12	0.31	.13	−.11	.01	.21	− 04	−.01		
8. 1992 beta	1.07	0.42	−.04	.05	.11	.03	− 03	−.05	.06	
9. Total number of proxy sentences	41.30	16.11	.10	−.01	−.03	.13	− 09	−.05	−.06	−.12
10. ln(5-yr. cum. company returns)	5.19	0.59	.15	.06	.07	.20	12	.13	.10	.10
11. 5-yr. avg. return on assets	4.54	4.91	−.15	.11	.03	− 31	08	−.12	−.12	−.10
12. ln(5-yr. cum. industry returns)	5.48	0.26	−.01	.00	.07	.01	02	.01	−.02	.26
13. ln(CEO 1992 annual pay)	13.82	0.51	.37	.11	.06	.48	− 12	.07	.04	.13
14. ln(CEO 1992 exercised options)	6.69	6.85	.16	.17	.11	.11	03	−.01	−.09	.13
15. Concentrated outside ownership	0.52	0.50	−.13	−.06	.03	−.21	− 07	−.10	−.04	.16
16. No. of 1992 shareholder resolutions	0.85	1.37	.28	−.06	−.13	.45	− 09	.14	.19	−.11
17. 5-yr. cum. peer group returns	189.20	56.97	.12	.08	.03	.26	06	.14	.20	.19
18. No. of peers in primary SIC code	12.44	16.16	.26	−.12	−.02	.28	29	.76	.08	−.13
19. No. of peers not in primary SIC code	6.95	13.12	−.02	−.03	−.04	.11	− 27	.60	.21	.09
20. No. of peer sentences in proxy	4.05	3.27	.18	.03	−.10	.20	− 01	.01	−.02	−.16
21. ln(No. of companies in industry)	5.48	0.98	0.10	−.11	−.02	.06	25	.22	.05	.11

Variable	9	10	11	12	13	14	15	16	17	18	19	20
10. ln(5-yr. cum. company returns)	.05											
11. 5-yr. avg. return on assets	−.01	.35										
12. ln(5-yr. cum. industry returns)	−.05	.32	.20									
13. ln(CEO 1992 annual pay)	.18	.37	.07	.13								
14. ln(CEO 1992 exercised options)	.03	.37	.20	.10	.37							
15. Concentrated outside ownership	−.17	−.17	−.18	−.07	−.23	.01						
16. No. of 1992 shareholder resolutions	.10	−.08	−.14	−.10	.30	−.07	−.25					
17. 5-yr. cum. peer group returns	−.01	.55	.28	.37	.26	.19	−.18	.01				
18. No. of peers in primary SIC code	−.11	.14	−.11	−.05	−.03	−.05	−.19	.05	.17			
19. No. of peers not in primary SIC code	.07	.03	−.04	.08	.16	.07	.08	.16	.01	−.08		
20. No. of peer sentences in proxy	.41	.05	−.03	−.02	.13	.12	−.08	.16	.01	.06	−.06	
21. ln(No. of companies in industry)	−.02	.06	−.10	.00	.16	.09	−.06	.03	−.09	.32	−.05	.09

* Correlations > .11, significant at $p < .05$; correlations > .15, significant at $p < .01$.

varied industry membership, by combining multiple published groups, or by constructing idiosyncratic groups containing firms from two or more industries. While a strong intraindustry bias existed in our sample, on average 31 percent of the chosen peer firms were outside a company's primary industry. Although no boards constructed peer groups without any firms in their company's primary industry, 19 percent constructed groups having 50 percent or fewer firms in their primary industry.

H2 predicted that these expansions would induce boards to downplay peer comparisons in their rationalizations of CEO pay allocations. We tested this prediction by examining the relationship between the number of peer firms within the same primary industry and the frequency of proxy sentences containing references to peer groups. Table 3 presents the results of our regression analyses. Models 1 and 2 test the relationship between peer industry membership and the frequency of peer sentences with only the control variables included in the model. Models 3 and 4 incorporate the research variables of peer and industry performance, ownership characteristics, and CEO compensation. Although the number of peers in a company's primary industry is not significantly related to the frequency of peer sentences when only the control variables are included, this relationship becomes significant when the research variables are included as well. Model 4 shows that boards that chose more peers from within their company's primary industry discussed these peers significantly more than boards who chose fewer peers from their primary industry, holding all other variables constant.

Model 4 also shows three relationships that were not predicted. First, the total number of peers is negatively associated with the frequency of peer sentences, but only when controlling for the number of same-industry peers. Thus, when the industry membership of peers is controlled for, boards that define a larger number of peers tend to discuss them less than boards that choose fewer peers. This effect could be due to the fact that larger peer groups tend to be derived from published indices that are viewed as legitimate and thus as requiring little additional justification and discussion. Second, a company's beta is negatively related to the frequency of peer sentences, perhaps because stock volatility makes comparisons with both broad market indices and more specific peer groups somewhat equivocal. Finally, the value of stock options exercised by a company's CEO in 1992 is positively associated with the frequency of peer discussions. This effect could be due to the fact that stock options are most likely to be exercised when a company's stock price is high, and it seems likely that the board will use high stock values relative to market and peer groups to justify large cash outlays to the CEO.

Industry Categorizations

Taken together, the above results are consistent with our argument that informational forces rooted in the need for diagnostic performance comparisons tend to encourage boards to select peer groups from within their company's primary 2-digit industry. Moreover, boards discussed their

Table 3

Unstandardized Regression Coefficients for Predicting Frequency of Peer Sentences*

Variable	Model 1	Model 2	Model 3	Model 4
Board size	.07	06	.05	.03
	(.07)	(.07)	(.07)	(.07)
Staggered board	.27	.28	.20	.22
	(.39)	(.39)	(.40)	(.40)
CEO tenure	−.03	−.03	−.03	−.03
	(.03)	(.03)	(.03)	(.03)
ln(Total assets in 1992)	.26	.25	.24	.20
	(.17)	(.17)	(.20)	(.20)
% of Business in primary SIC code	.01	−.01	.01	−.01
	(.01)	(.01)	(.01)	(.01)
Total number of peer companies	−.01	−.02	−.01	−.03•
	(.01)	(.02)	(.01)	(.02)
Multiple peer groups	−.11	−.01	−.06	.13
	(.62)	(.62)	(.64)	(.64)
1992 beta	.88••	−.79•	−1.07••	−.98••
	(.45)	(.45)	(.50)	(.50)
Total number of proxy sentences	.08•••	.08•••	.08•••	.08•••
	(.01)	(.01)	(.01)	(.01)
ln(5-yr. cum. industry returns)			.64	.85
			(.78)	(.78)
ln(5-yr. cum. company returns)			−.08	−.19
			(.41)	(.41)
5-yr. avg. return on assets			−.02	−.01
			(.05)	(.05)
ln(CEO 1992 annual pay)			−.38	−.24
			(.49)	(.49)
ln(CEO 1992 exercised options)			.07••	.07••
			(.03)	(.03)
No. shareholder resolutions			.20	.25
			(.17)	(.17)
Concentrated outside ownership			.27	.26
			(.41)	(.42)
No. of peers in primary SIC code		.03		.04••
		.02)		(.02)
d.f.	9,261	10,260	16,250	17,249
R-square	.21	.21	.24	.25
Adjusted *R*-square	.18	.18	.19	.20
F-ratio	7.52•••	6.99•••	4.8•••	4.8•••
N	270	270	266	266

• $p < .10$; •• $p < .05$; ••• $p < .01$, two-tailed tests.
* Numbers in parentheses are standard errors.

peer comparisons more extensively in their reports to shareholders when their peers were industry-based. Hypotheses 3 through 8 pertain to factors that operate in addition to these informational forces to increase or decrease the tendency for boards to select peers from their company's primary industry.

Firm and industry performance. Table 4 presents the results of an OLS regression analysis predicting the number of peers chosen from within a company's primary industry and provides good support for our hypotheses. Models 2 and 5 in table 4 show that a company's cumulative market returns over five years are unrelated to the number of peers chosen from the company's primary industry when only the control variables are included in the model but are positively associated with the number of industry peers when all control and research variables are considered. This pattern did not hold, however, for five-year accounting returns. Thus, H3 is par-

tially supported for stock returns but is not supported for accounting returns. In partial support of H4, industry stock returns are negatively associated with the number of peers chosen from a company's industry, but only in model 5, when all variables are included in the analysis. Although not hypothesized, it might be argued that industry performance may be less threatening if a company is also performing well. In analyses not presented here we tested this argument by interacting firm performance and industry performance but found no significant effect.

CEO pay. H6 predicted a negative relationship between CEO compensation and the number of peers chosen from a company's primary industry. The results in models 3 and 5 partially support this prediction. Higher 1992 annual pay is associated with fewer peers from a company's primary industry in both models 3 and 5. In general, the higher a CEO's annual pay, the more expansive was a board's definition of a company's peer group. This was true for 1992 exercised options as well, but only for the full model 5.

Table 4

Unstandardized Regression Coefficients for Predicting Number of Peers in Company's Primary SIC Code*

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Board size	.43•	.42•	.54••	.46••	.58•••
	(.22)	(.22)	(.22)	(.22)	(.21)
Staggered board	.003	−.003	.65	−.45	.13
	(1.25)	(1.25)	(1.25)	(1.23)	(1.23)
CEO tenure	.05	.05	.06	.02	.04
	(.08)	(.08)	(.08)	(.08)	(.08)
ln(Total assets in 1992)	.28	.04	.96•	.57	.89
	(.54)	(.57)	(.57)	(.56)	(.62)
% of Business in primary SIC code	.16•••	.16•••	.15•••	.15•••	.13•••
	(.03)	(.03)	(.03)	(.03)	(.03)
Total number of peer companies	.57•••	.56•••	.56•••	.56•••	.55•••
	(.03)	(.03)	(.03)	(.03)	(.03)
Multiple peer groups	−3.70•	−4.00••	−4.43••	−3.00	−4.43••
	(1.99)	(2.00)	(1.97)	(1.97)	(1.96)
1992 beta	−3.666••	−3.72••	−2.89••	−3.66••	−2.46
	(1.44)	(1.55)	(1.43)	(1.45)	(1.53)
ln(Number of companies in industry)	1.89•••	1.85•••	2.17•••	1.83•••	2.12•••
	(.65)	(.65)	(.64)	(.64)	(.63)
ln(5-yr. cum. industry returns)		−3.12			−4.06•
		(2.49)			(2.40)
ln(5-yr. cum. company returns)		1.58			2.57••
		(1.21)			(1.25)
5-yr. avg. return on assets		−.16			−.13
		(.14)			(.14)
ln(CEO 1992 annual pay)			−4.14•••		−4.53•••
			(1.44)		(1.50)
ln(CEO 1992 exercised options)			−.13		−.17•
			(.09)		(.10)
No. shareholder resolutions				−1.36•••	−1.11••
				(.50)	(.51)
Concentrated outside ownership				−3.10••	−3.83•••
				(1.22)	(1.25)
d.f.	9,261	12,257	11,256	11,259	16,250
R-square	.67	.67	.68	.68	.71
Adjusted *R*-square	.65	.65	.67	.67	.69
F-ratio	57.62•••	43.46•••	50.12•••	50.00•••	38.36•••
N	270	269	267	270	266

• $p < .10$; •• $p < .05$; ••• $p < .01$, two-tailed tests.
* Numbers in parentheses are standard errors.

One might inquire whether there was some threshold level at which boards expanded the set of peer firms beyond industry boundaries. In analyses not presented here, we created a bivariate scatterplot of CEO salary and the number of peers chosen from a firm's primary industry, but we found no such threshold effect. It is also possible that CEO salary may be less important if either the company is performing well or the industry as a whole is performing well. We tested these arguments by interacting CEO salary with company performance and industry performance, but neither interaction revealed any significant effects.

Ownership power and activism. Hypotheses 7a and b and 8a and b provide a set of competing predictions about the effects of ownership power and activism on board comparability judgments. The regression results of models 4 and 5 in table 4 clearly support the self-protective predictions of H8a and b over the agency theory predictions of H7a and b. The boards of companies with more concentrated outside ownership tended to choose fewer peers from within their company's primary industry than boards of companies with less concentrated outside ownership. Similarly, boards of companies with active shareholders tended to choose fewer industry peers than boards of companies with less active shareholders.

Control variables. As can be seen from table 4, several of the control variables had significant effects on board comparability definitions. First, the presence of multiple peer groups was negatively associated with the number of peers chosen from a company's primary industry, suggesting that when boards chose more than one peer group, they were doing so to broaden their performance comparisons. Second, the total number of peer companies selected by boards across all peer groups was positively associated with the number of peers chosen from the company's industry. This effect is most likely due to the fact that several large published industry indices, such as the Edison Electric 100 and the KBW 50, are heavily oriented around industry categories. These groups were well represented in our sample of peer comparisons and explain the observed relationship between the number of peer companies and the number of peers chosen from a company's primary industry. Third, the percentage of a company's business in its primary industry was positively associated with the number of industry peers. Although this effect is unremarkable theoretically, it is nonetheless consistent with our argument, because it suggests that boards modulate their industry categorizations according to the extent of their company's business in a particular industry. This is also true for the observed positive relationship between the number of companies in a firm's primary industry and the number of firms in the peer group chosen from that industry. We would expect both of these effects if industry categories are particularly meaningful and useful. The political variables that we included in our analysis were operating, however, even when we controlled for these powerful industry anchoring effects. Finally, the size of the board of directors was positively associated with the number of industry peers. This effect can be explained by the fact that larger boards are less easily influenced by managerial inter-

ests (e.g., Pearce and Zahra, 1992) and perhaps are more likely to provide shareholders with informative performance comparisons.

Peer Performance

Hypothesis 5 suggested that boards expand their peer definitions as a way of bolstering their companies' performance position in relation to comparison groups. This implies that when boards choose peers from outside their company's primary industry, they do so to select lower-performing peers. To test this argument, we estimated the average cumulative market returns for all of a company's selected peer groups, using the number of peers selected from outside a firm's industry as the key explanatory variable. H5 predicted a negative relationship between this variable and peer-group performance, such that boards that choose a larger number of peer companies from outside their company's industry should, on average, choose lower-performing peers than boards whose peer selections are industry-based. Table 5 provides the results of our regression analysis. Models 2 and 4 in table 5 support H5 by showing that peer performance is negatively related to the number of peers chosen from outside a firm's primary industry. Table 5 also shows that larger and more profitable firms, as well as firms with higher betas and more peers, chose higher-performing peer groups.

Explanations for Peer Selection

The SEC rules concerning peer-group selection leave open the possibility of boards providing a written explanation for their chosen peers and explicitly require such an explanation if peers are chosen on the basis of non-business-line considerations. Of the 280 firms in our sample, 75 (26.7 percent) provided at least one such explanation with their peer-comparison chart. Although these explanations were not included in our initial research questions, a post hoc analysis of their content revealed additional information about the bases for the comparability judgments of the boards in our sample.

After reading through all 75 explanations to capture the range of organizational attributes that were used to explain peer selections, we coded each explanation into four categories. Explanations were coded as *industry-based* when they referred to business-line attributes or industry membership as the reasons for peer selection. *Size* explanations were coded when boards used market capitalization or adjectives such as "large," "major," or "big" to describe peer companies. *Compensation* explanations were coded when boards claimed that their peers were the same companies that they employed to judge the market equity of executive pay levels. Finally, a miscellaneous *other* category covered a variety of idiosyncratic attributes (e.g., location, competition for executive talent) that were only infrequently used by a small number of boards. Of the 75 boards that provided explanations for their peer selections, 54 (72 percent) provided one explanation type only, 18 (24 percent) combined two types, and three (4 percent) provided explanations involving three types. Sixty-eight (91 percent) of these boards included industry-based accounts as part of their explanations, 18 (24 percent) included size explanations, four (5 percent) included compen-

Table 5

Unstandardized Regression Coefficients for Predicting Average Peer Group 5-year Cumulative Market Returns*

Variable	Model 1	Model 2	Model 3	Model 4
Board size	−.85	−1.14	−.86	−1.29
	(1.21)	(1.28)	(.99)	(.99)
Staggered board	14.54••	14.49••	8.97	8.91
	(6.97)	(6.93)	(5.79)	(5.72)
CEO tenure	.26	.23	−.02	−.16
	(.46)	(.46)	(.39)	(.39)
ln(Total assets in 1992)	9.41••	9.17••	10.88•••	10.22•••
	(2.96)	(2.94)	(2.88)	(2.87)
% of Business in primary SIC code	.26	.14	−.01	−.12
	(.16)	(.17)	(.13)	(.14)
Total number of peer companies	.21	.47•••	.14	.45••
	(.17)	(.22)	(.14)	(.18)
Multiple peer groups	5.52	7.81	3.86	6.93
	(10.97)	(10.98)	(9.15)	(9.13)
1992 beta	21.79••	23.97••	13.74•	15.20••
	(8.07)	(8.10)	(7.12)	(7.06)
ln(5-yr. cum. industry returns)			40.13•••	43.54•••
			(11.24)	(11.19)
ln(5-yr. cum. company returns)			32.55•••	30.86•••
			(5.83)	(5.80)
5-yr. avg. return on assets			2.42•••	2.53•••
			(.67)	(.664)
ln(CEO 1992 annual pay)			−3.17	−.31
			(7.02)	(7.03)
ln(CEO 1992 exercised options)			−.16	−.05
			(.46)	(.45)
No. shareholder resolutions			−2.15	−1.29
			(2.38)	(2.37)
Concentrated outside ownership			−7.07	−4.14
			(2.38)	(5.91)
No. of peers not in primary SIC code		−.65•		−.74••
		(.34)		(.29)
d.f.	8,258	9,257	15,248	16,247
R-square	.11	.12	.43	.44
Adjusted *R-square*	.08	.09	.39	.40
F-ratio	4.02•••	4.03•••	12.20•••	12.10•••
N	266	266	263	263

• $p < .10$; •• $p < .05$; ••• $p < .01$, two-tailed tests.
* Numbers in parentheses are standard errors.

sation explanations, and 10 (13 percent) included a variety of miscellaneous other explanations.

Two aspects of these peer-selection explanations bear on the interpretation of our results. First, the presence and type of explanations are unrelated to whether boards chose peers from within or outside their primary SIC category. Of the 280 boards in our sample, 166 (59.3 percent) chose at least one peer from outside their primary industry, and 114 selected all of their peers from their primary industry. Of the former, only 27.1 percent provided explanations for their peer selections. Of the latter, only 26 percent provided explanations. These percentages are not significantly different. Moreover, statistical tests revealed no differences between these two groups of boards in the type of explanations for their peer selections. In both groups, industry explanations were most frequent, followed by size explanations. To the extent that industry, or line of business, considerations represent the most legitimate and acceptable categorization in this context,

these results suggest that when boards did provide an explanation for their peer selections, they were likely to use industry-based accounts regardless of whether their peers were members of their primary industry.

The legitimacy of industry accounts is further supported by results suggesting that boards that used industry explanations for their peer selections discussed their peer groups more frequently in the body of the "Report of the Compensation Committee" than boards who used other types of explanations or no explanation at all. We constructed a regression model that mirrored model 4 of table 3, predicting the frequency of peer sentences in the report, but added a dummy code for the use of industry explanations. This analysis indicated a significant ($p < .05$) and positive relationship between the presence of an industry explanation for peer selection and the frequency of sentences discussing peer groups. This effect was independent of the positive relationship between the number of peers in a company's primary SIC code and peer-sentence frequency. When we added dummy codes for the other three types of explanations, only industry explanations predicted the frequency of peer discussions. When combined with the results from model 4 of table 3, these results suggest that boards discussed their peer groups more frequently when they actually chose peers from their primary industry or when they used industry-based attributes to explain the peers that they did choose.

Change in Peer Groups over Time

We conducted one additional post hoc analysis to flesh out the meaning of our core results on industry categories. Since 1993 was the first year for which explicit peer-group comparisons were mandated by the SEC, one question raised by our results is whether the peer selections made by the boards in our sample were idiosyncratic to 1993 proxy statements or whether they constituted stable categorizations that extended into years beyond 1993. Dramatic changes in peer-group definitions from year to year would suggest that these particular categorizations are largely symbolic manipulations designed to justify pay allocations to shareholders in very specific political contexts. To examine this issue, we collected the 1994 proxy statements for all 280 firms in our sample and coded whether the 1994 peer-group definitions were the same or different from those reported in the 1993 statements. We also coded any explanation provided by the board for why peer groups were changed from 1993 to 1994 by using the same four categories that we used to code the 1993 peer-group explanations: industry attributes, size, compensation, and other.

Of the 280 boards in our sample, 27 (9.6 percent) changed their peer-group composition from 1993 to 1994. When compared with their 1993 peer groups, 10 boards (37 percent) chose 1994 groups with a higher percentage of firms from their company's primary industry. Four (14.8 percent) chose 1994 groups that had a lower percentage of primary industry peers, and the remaining 13 boards (48 percent) chose 1994 groups with the same percentage of primary industry peers. In terms of peer performance, 11 boards (40.7 percent) chose 1994 peers that performed better than their 1993

peer groups, while 16 boards (59.2 percent) chose groups that performed worse. An analysis of the explanations for peer-group change showed that 10 boards (37 percent) justified their changes with industry-based accounts, two (7 percent) with size accounts, two (7 percent) with compensation accounts, and four (14 percent) with miscellaneous other accounts. Eleven boards (40.7 percent) provided no explanation at all for why they changed their peer selections.

The small percentage of boards that changed their peer definitions from 1993 to 1994 rules out extensive regression analyses on the change data. The number of observations is simply too low to produce meaningful parameter estimates. The above descriptive data do indicate, however, that the 1993 peer selections were not idiosyncratic to that year but were, in fact, stable categorizations that remained consistent over a two-year period. Moreover, when boards did change their peer definitions, the most frequent explanation for the change was that the company underwent a major transformation of its core business through acquisitions, divestitures, and/or mergers, or that there was a major change in the composition of the company's primary industry.

DISCUSSION AND CONCLUSIONS

Neoinstitutional organizational theorists have called attention to the role of collective beliefs in structuring organizational fields (e.g., DiMaggio and Powell, 1991; Scott, 1995). But in calling attention to the cognitive underpinnings of organizational communities, institutional theorists have also suggested that collective beliefs are themselves influenced by organizational actors pursuing their own interests and vying for dominance in resource acquisitions (e.g., DiMaggio, 1988). As Hirsch (1997; Hirsch and Lounsbury, 1997) noted, however, the complex linkages between the cognitive and political bases of organizational fields have largely been ignored by empirical researchers. These linkages involve both long- and short-run processes. Political interests become intertwined with collective beliefs in the long run as organizational actors attempt to create, and subsequently control, self-affirming identities, classifications, and rules of the game. Once an accepted cognitive order has emerged from interest-group politics, however, short-run sensemaking can deploy accepted logics and classifications to an actor's advantage.

We have used board peer definitions as a vehicle for examining how short-run political interests shape the use of normatively charged collective beliefs in a very real and contentious corporate situation. Organizational categories make little sense unless they are informed by field-level categorical knowledge and nomenclatures that define organizational forms (e.g., Porac and Thomas, 1990; Porac et al., 1995). But categories are also grounded in micro-level sensemaking processes that take place in very tangible contexts (e.g., Gioia and Thomas, 1996; Elsbach and Kramer, 1996). One tension that emerges from this mix is an opposition between stability and lability, between categories as reliable

intersubjective guideposts and categories as contingent constructions that solve political problems of the moment.

Our research shows how stability and contingency play off each other in comparability judgments that are constructed to interpret managerial and organizational performance. Two-digit SIC categories reflect a commonsense wisdom about organizational similarities and differences. Broad industry categories such as financial services, airlines, and coal mining are bedrock distinctions that seem self-evident when used in everyday discourse. They represent informative cuts in inter-organizational space such that firms that are included in these broad categories seem more similar than different. Moreover, these groupings have been reified in many popular financial indices and publications that monitor industry conditions. Our results capture this taken-for-grantedness by showing that boards anchored their definitions of comparable organizations within their firm's primary industry and most frequently defined peers exclusively by these categories. Even when boards selected peers from outside their industry, they still selected most of their peers from within it and/or used industry-based attributes to explain their peer-group composition. When boards did expand their peer comparisons beyond industry boundaries, they seemed to be aware of the counter-normative nature of this choice, because they discussed these comparisons significantly less than boards that selected peers from their primary industry.

At the same time, however, about 30 percent of company peers, on average, were chosen from outside a primary industry, and our results suggest that political forces stemming from board-shareholder relationships accounted for a significant proportion of the variance in these extra-industry peer selections. Boards broadened their peer-group membership when their company performed poorly, when their primary industry performed well, when their CEO was highly paid, and when their shareholders were powerful and active. Moreover, expanded peer groups were, on average, lower performing than groups selected mainly from within a primary industry. These effects were independent of any influence from a company's degree of diversification, size, board power, industry size, and the size of the peer group itself. This overall pattern of results is consistent with a politically driven short-term categorization process in which self-protective motivations induce boards to camouflage sensitive organizational conditions and respond to powerful legitimacy threats by slanting performance comparisons toward less similar and poorer-performing peers.

Thus, while boards do rely on stable commonsense industry categories to define comparable firms, they adjust these categories in subtle ways according to the politics of their corporate situation. Consider our previous example of Capital Cities/ABC (see figure 2, above). Eighty percent of ABC's 1992 revenues were derived from its broadcasting businesses (2-digit SIC code 48) and 20 percent from various newspaper and publishing concerns (2-digit SIC code 27). The company's five-year cumulative shareholder return of $148 is substantially below the average return for both the broadcasting ($258) and newspaper ($192) industries. But ABC is one of only 66 firms in our sample (24 percent) that

had both concentrated outside ownership in 1992 and at least one shareholder resolution submitted for a vote at the 1993 annual meeting. Within this economic and political context, ABC's board defined a peer group whose composition was just the opposite of ABC's business mix: 20 percent (i.e., CBS) of the peers are members of the broadcasting category, while the remaining four companies (Gannett, Tribune Co., Washington Post, and Dow Jones) are primarily print publishers. Moreover, all members of ABC's peer group were low performers in their respective industries, and the peer group's five-year cumulative return was comparable to the company's own subpar performance. The broadcasting and publishing categories are certainly diagnostic of ABC's economic context in the sense that the company's businesses are situated in these industries. At the same time, however, the board's definition of "other advertiser supported media and entertainment companies" is idiosyncratic and oriented toward companies that performed less well than ABC and are members of ABC's secondary, and poorer-performing, industry. Within the broad diagnostic umbrella of ABC's two key industries, the board's peer definition seems slanted and self-protective.

This juxtaposition of informational and political motivations would seem to be fundamental to organizational categories in most decision contexts. The juxtaposition is encouraged by the inherent incompleteness of categorical nomenclatures. Commonsense categories are summaries abstracted from organizational action. While informative, they rarely match individual cases completely, thus providing actors with considerable latitude to customize categories according to the task at hand (Barsalou, 1987). In the context of corporate governance, political motivations seem to trigger self-protective customizations that downplay sensitive organizational conditions by broadening performance comparisons. Similar motivations are evident in Elsbach and Kramer's (1996) study of how business schools adapted to the legitimacy threats posed by a new ranking scheme.

But self-protection is only one political motivation, and other types of customizations are possible. For example, self-handicapping categories are often used in the context of strategic change to motivate action toward a desired future state. This seems to have been the case with Gioia and Thomas's (1996) university administrators, who explicitly defined their school out of the select group of "Top 10 public universities" to energize self-improvement and promote alumni financial contributions. Organizational categories can also be deployed in the context of competitive strategy to differentiate an organization from similar rivals competing for the same customers. Porac and Rosa (1996) found, for example, that even in the face of well-understood categories of Scottish knitwear companies, some knitwear managers idiosyncratically defined their businesses in ways that promoted their competitive position within the consensual order. Since our study focused on a corporate governance situation, these other categorical motivations would seem to be less salient than management's desire to look as good as possible when compared with peer companies. Additional qualitative research would be useful in ferreting out any other

categorical motivations that might be operating in the governance context.

Although our results thus suggest that short-run political interests become intertwined in complex ways with the categorical structures that make organizational fields sensible, an important limitation of our study is its cross-sectional nature. We focused on the inaugural year of the 1992 SEC reporting rules because there were few public precedents for boards to draw from in responding to the new proxy regulations. While it is under conditions of interpretive ambiguity that self-interest is sometimes most evident, it is reasonable to inquire about the stability of boards' peer definitions over time. This issue is complicated by the fact that the SEC explicitly warns against crass manipulation of peer-group membership. Thus, boards had to consider long-run legitimacy when selecting their initial peers, a consideration that probably contributed to the tendency that we observed for boards to anchor their peer definitions within acceptable industry categories. It probably also contributed to the stability in peer constructions that we observed in our comparisons of 1993 and 1994 peer groups. Nonetheless, to the extent that these categorizations are self-protective, at least at the margin, there should be movement across time in peer definitions as boards adjust their peer groups to respond to immediate political threats. Whether the 10-percent change that we observed between 1993 and 1994 is typical of the extent of annual change over longer periods can only be determined by future research across several more years.

It is important to consider any implications our results may have for debates about the neutrality of boards' performance referents in CEO pay allocations. Implicit in our modeling strategy is a view of the 1993 board comparability judgments as evidence of sensemaking taking place after actual pay decisions have been made. This view corresponds with the temporal ordering of pay decisions in 1992 and the publication of our sample's proxy statements in the first quarter of 1993: boards actually were faced with the task of justifying CEO compensation months after the fact. While this ordering is useful for studying the organizational categories that are used during retrospective sensemaking, it immediately raises the question of whether boards' peer definitions as published in proxy statements bear any relationship to the actual referents used during pay decisions.

Any conclusion regarding this issue must await empirical research examining the relationship between proxy peer comparisons and CEO pay allocations over time. We advance the conjecture, however, that published peer definitions, private board referents, and CEO pay allocations form a sensemaking triad that evolves in complex ways as unpredictable informational and political forces confront boards with threats to the coherence and legitimacy of their compensation policies. Our results are inconsistent with radical critiques of CEO pay that impute massive self-protection and peer-group manipulation (e.g., Crystal, 1991). They are also inconsistent, however, with SEC expectations that published peer groups will induce boards to be completely neutral in their performance comparisons. Instead, we found that boards work within broadly diagnostic industry categories and alter their peer

definitions in subtle ways according to their immediate political context. Milkovich and Newman (1993) argued that it is extremely difficult to balance all of the opposing economic, political, and social forces that control the coherence of pay systems. For example, despite well-intended efforts to choose diagnostic peer referents, boards may eventually confront a mismatch between CEO pay and a company's relative performance due to market forces controlling the short-term worth of a particular CEO. Such circumstances are likely to trigger rationalization efforts to recalibrate pay levels, peer-performance comparisons, and private referents. Examining the socio-cognitive dynamics underlying this recalibration is an attractive topic for future research.

Finally, it is useful to consider the policy implications of our results within current debates about CEO pay and performance evaluation. The past decade has been characterized by increasingly strident commentary charging that corporate executives are grossly overpaid. Among organizational and corporate compensation scholars, this commentary has triggered a wave of studies demonstrating that executive pay allocations are subject to powerful social and political influences (e.g., Wade, O'Reilly, and Chandratat, 1990; Westphal and Zajac, 1994; Belliveau, O'Reilly, and Wade, 1996; Finkelstein and Hambrick, 1996). These influences occasionally culminate in quite remarkable abuses of executive power and privilege (e.g., Crystal, 1991) but more often produce subtle biases that are probably unnoticeable except through systematic and statistical scrutiny of executive pay packages (e.g., Westphal and Zajac, 1994; Belliveau, O'Reilly, and Wade, 1996). The SEC's 1992 reporting rule changes were justified by claiming that a more open reporting process would eradicate the grossest forms of abuse and minimize more subtle compensation biases. Louis Breeden, the head of the SEC at the time, explained the rule changes by remarking that "the best protection against abuses in executive compensation is a simple weapon—the cleansing power of sunlight and an informed shareholder base" (Senate Subcommittee, 1991).

The findings of our study, however, add to a growing literature that suggests that the 1992 rule changes, rather than opening up the executive compensation process, have actually created new opportunities to politicize it. For example, Murphy (1996) found that different stock-option valuation methods under the new rules were used to understate large option allocations. Murphy explained his findings by suggesting that this understatement was due to corporate boards attempting to minimize shareholder resistance to these grants. Wade, Porac, and Pollock (1997) observed that compensation committees used a variety of proxy-statement justifications to explain their executive compensation practices and that the frequencies of these justifications were systematically related to political factors that exist in the relationship between boards and shareholders. The results of these and other studies are beginning to indicate that compensation allocations, and the reporting of these allocations, are embedded in a complex web of intractable political interdependencies that will be quite difficult to untangle.

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