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# GOVERNANCE PATTERNS IN BANKRUPTCY REORGANIZATIONS

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*Recent research has suggested that effective monitoring may assist firms in preventing an eventual bankruptcy filing. Audit committees, board subgroups responsible for monitoring and evaluating the financial health of the firm, may exhibit varying degrees of effectiveness in monitoring firms' decline as a function of their composition. Another monitoring body which has become increasingly important in the corporate community is institutional investors. This study investigates the extent to which audit committee composition and institutional investor holdings are related to the incidence and nature (prepackaged plans and length of time spent in reorganization) of firms' bankruptcy filings. Results demonstrate no association between affiliated director representation on audit committees or institutional holdings and the incidence of bankruptcy. These two monitoring groups are, however, associated with the nature of bankruptcy filing. Both audit committee composition and the level of institutional holdings are significantly related to a prepackaged filing and the length of time spent in reorganization during the 5-year period preceding a bankruptcy filing.*

Attention to the strategic implications of organizational failure has gained increasing attention in recent years (Daily, 1994). A growing body of literature has specifically addressed the effectiveness of firms' monitoring via the board of directors in preventing a bankruptcy filing (e.g., Chaganti, Mahajan, and Sharma, 1985; Daily and Dalton, 1994a, 1994b; Gilson, 1990; Hambrick and D'Aveni, 1992). Daily and Dalton (1994a), for example, found that firms with lower proportions of independent directors and the joint board leadership structure were associated with bankruptcy. Higher proportions of affiliated directors have also been found to be associated with a bankruptcy filing (Daily and Dalton, 1994b). Researchers have documented a decline in the number of outside directors in the years preceding a bankruptcy filing as well (Gales and Kesner, 1994; Hambrick and D'Aveni, 1992).

These studies demonstrate that considerable progress has been made in establishing a relationship between board composition and the incidence of bankruptcy. It may be, however, that overall board representation is less at issue than the composition of board subgroups (e.g., Kesner, 1988). Overall board composition 'may be too subtle an indicator to adequately capture the importance of the outside director' (Daily, 1994: 285). Board committee composition may provide valuable insights into the relationship between firms' strategic leaders and the incidence of a bankruptcy filing (e.g., Bibeault, 1982; *The Financial Aspects of Corporate Governance*, 1992).

Much of the rationale for focusing on board subgroups is that significant board decisions frequently occur within the context of a specific committee (see, for example, Bilimoria and Piderit, 1994). Rarely are board decisions made by

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a committee of the whole, particularly in large firms. One of the more powerful board committees is the audit committee (Kesner, 1988). The importance of this committee in ensuring the financial health of the firm makes this committee especially relevant in examinations of organizational failure. As some demonstration of its importance, the audit committee has been referred to as 'one of the cornerstones of corporate governance' (*The Financial Aspects of Corporate Governance*, 1992: 36).

Institutional investors have also emerged as a powerful monitoring force in the corporate community. Institutional holdings have steadily risen in the past several decades and are anticipated to continue to rise well into the early part of the next century (Davis and Thompson, 1994; Useem, 1993). Currently, institutional investors control better than half of all the equity in large firms (Firstenberg and Malkiel, 1994; Fromson, 1990; Heard, 1987; Useem, 1993; Useem *et al.*, 1993). These substantial holdings have afforded institutions the power to influence the manner by which firms are governed.

This study extends previous research by examining the impact of audit committee composition and institutional investor holdings on the incidence and form of a bankruptcy reorganization filing for the 5-year period preceding the filing. We are aware of no research which empirically examines the direct impact of these two monitoring bodies on a bankruptcy reorganization filing. Moreover, previous research has not investigated the nature of a reorganization filing as captured by the recent trend of prepackaged filings and the length of time spent in reorganization. Subsequent sections will explore the importance of audit committee composition and institutional investor holdings within the agency theory framework. Resource dependence theory, too, will be applied since bankruptcy is often the result of a protracted process of decline, whereby the failing firm loses the support of critical external constituents as it nears a bankruptcy filing (e.g., Hambrick and D'Aveni, 1988, 1992). Linkages between the bankrupt firm and its external environment may prove particularly useful in seeking quick exit from a reorganization filing. The relationships to be investigated are illustrated in Figure 1.

## THE INCIDENCE OF BANKRUPTCY: BOARD COMPOSITION AND THE AUDIT COMMITTEE

### Agency theory and board composition

Board composition has been a prominent focus of the board reform movement. There is a widespread belief 'that board composition matters, and in a particular manner' (Baysinger and Butler, 1985: 103). Agency theory provides some perspective on the effective structuring of corporate boards (see, for example, Eisenhardt, 1989; Jensen and Meckling, 1976 for an excellent overview of agency theory). When control and ownership of the firm are separate, as is characteristic of large corporations, managers may elect to pursue their own interests, which may diverge from those of shareholders. Firstenberg and Malkiel (1994: 34) recently commented that the 'separation of ownership and control and the potential for divergent interests are an *inherent* part of the corporate structure' (emphasis added).

Perhaps the most notable manifestations of managerial self-interest are the consumption of excessive perquisites occasionally reported. Self-interest, however, may extend well beyond perquisites (Jensen and Meckling, 1976). Managers have demonstrated a tendency to sacrifice shareholders' profits in pursuit of firm growth (Jensen, 1988). These tendencies may be particularly detrimental in the declining firm where managers may fail to accept the firm's decline and continue to engage in the same actions that led to the decline situation (e.g., Jensen, 1988).

The board of directors is designed as a means for protecting shareholders from managerial self-interest. The prevailing view is that an appropriately structured board of directors will benefit shareholders through effective board oversight (Baldwin, 1984; Firstenberg and Malkiel, 1994; Kesner, Victor, and Lamont, 1986; Pearce and Zahra, 1992). Much of the blame for directors' ineffectiveness has been attributed to the design of corporate boards (Geneen, 1984; Mace, 1971). Critics contend that boards can be most effectively comprised of a preponderance of independent, outside directors (e.g., Kesner *et al.*, 1986).

Representatives of some of the more prominent institutional investors, specifically pension funds, have successfully pressed for greater representation by outside directors on corporate boards

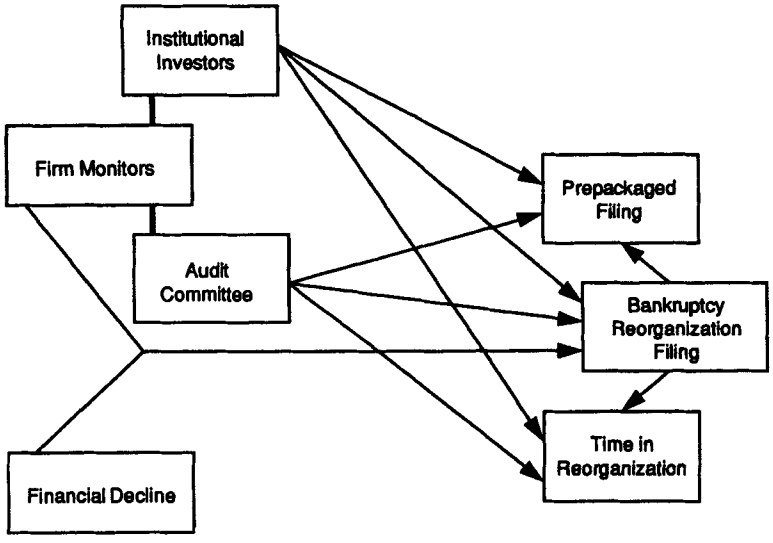


Figure 1. Relationships between firm monitors, financial decline, and bankruptcy

(Fromson, 1990, Salwen and Lublin, 1992; see also Davis and Thompson, 1994). The pressure for board reforms has largely been the outgrowth of shareholders' dissatisfaction with directors' vigilance in protecting their investment. Directors operate under a duty of loyalty which requires them to act in the best interest of shareholders (Cieri, Sullivan, and Lennox, 1994). Unfortunately, many directors have not responsibly attended to this duty, as evidenced, in part, by the rise in shareholder lawsuits (Kesner and Johnson, 1990).

## The audit committee

These views regarding the overall composition of corporate boards have been reiterated with respect to certain board subgroups (Kesner, 1988; Kesner *et al.*, 1986). One such subgroup is the audit committee. While responsibility for safeguarding the financial health of the firm is borne by the board of directors as a whole, the audit committee plays a prominent role in ensuring the integrity of corporations' financial reports. Research in both the United States and United Kingdom has shown that audit committees have developed into essential committees of the board (*The Financial Aspects of Corporate Governance*, 1992; Firstenberg and Malkiel, 1994). The role that the audit committee plays in monitoring firms' financial status makes this group particularly well positioned to protect shareholders' interests. The importance of the audit committee may, in part, explain why this committee has been the subject of particular scrutiny (*The Financial Aspects of Corporate Governance*, 1992).

As further demonstration of the significance of the audit committee, we would note its ubiquitousness. Approximately 97 percent of major U.S. corporations maintain an audit committee (*The Financial Aspects of Corporate Governance*, 1992). Firms listed on the New York Stock Exchange have been required to have an audit committee since 1978. While less common, more than two-thirds of large firms in the United Kingdom have an audit committee, with audit committees being a legal requirement in Canada (*The Financial Aspects of Corporate Governance*, 1992).

A critical aspect of monitoring firms' financial reports, particularly in the failing firm, is uncovering causes of financial decline (e.g., Baysinger and Hoskisson, 1990; Bibeault, 1982). Poor financial performance may be an indication of ineffective management and, therefore, a need for greater monitoring of management (Hermalin and Weisbach, 1988). Approximately 70 percent of all corporate failures may be attributed to ineffective management (Bibeault, 1982; see also Chaganti *et al.*, 1985). Empirical support for Bibeault's attribution has been recently demonstrated. D'Aveni (1990), for example, found that firms with less prestigious top management teams were more likely to experience bankruptcy. Dominant CEOs

and the deterioration of the top management team have been also found to be related to firm failure (Daily and Dalton, 1994a; Hambrick and D'Aveni, 1992). Additionally, managers have demonstrated a tendency to attribute poor performance to external causes, as compared to exploring internal causes of decline such as ineffective management (e.g., Bettman and Weitz, 1983; Clapham and Schwenk, 1991; Salancik and Meindl, 1984; Staw, McKechnie, and Puffer, 1983).

Research addressing the ways in which managers may process information from firms' external environment may also provide some perspective on the importance of directors in monitoring crisis situations (e.g., Normann, 1971; Ocasio, 1995). In general, managers may tend to dismiss information which emanates from remote parts of the firm's environment as irrelevant (Normann, 1971). For firms in crisis, this tendency may be exacerbated. Staw, Sandelands, and Dutton (1981) described a series of management responses to crisis or decline which they referred to as the threat–rigidity response. These responses, which include increased centralization and formalization, resistance to change, and conservatism, may significantly limit the firm's ability to respond appropriately to a crisis situation. Ocasio (1995) has suggested an alternative perspective to threat–rigidity whereby managers of crisis firms engage in increased amounts of information gathering, but, consistent with threat–rigidity, they structure the search behavior around familiar elements of the environment. Information generated from sources with which the organization has some familiarity and established linkages, however, is more likely to be received and understood by managers (Normann, 1971). Moreover, firms that receive information from established sources are more likely to undertake systemic reorganizations (Normann, 1971). Large-scale change may be needed either to prevent failure or to emerge successfully from failure.

The differences in the way information is received and processed may be critical for the declining firm. The board of directors may be uniquely positioned to assist the crisis firm in addressing the causes of decline. The board serves as an internal control mechanism composed predominately of outside (non-management) members (e.g., Firstenberg and Malkiel, 1994; Walsh and Seward, 1990). Where managers may tend to dismiss information from knowledgeable firm outsiders, directors are not so easily dismissed since they are both 'insiders' and have direct authority over management.

Given that bankrupt firms experience a marked financial deterioration as many as 5 years prior to filing (Hambrick and D'Aveni, 1988), the audit committee is especially well placed to uncover the source of decline. As previously noted, this committee has direct responsibility for ensuring the integrity of firms' financial status. Specifically, the composition of the audit committee may impact the identification of the causes of decline. Presumably, directors who maintain independence from firm management are more likely to uncover signs of decline and will be more aggressive in confronting problems. As Bibeault (1982) has noted, early detection is perhaps the most important way for directors to prevent a bankruptcy filing. As a result of their ties to the firm or its managers, it may be unreasonable to expect affiliated directors to evaluate a decline situation dispassionately. Recall that decline is often caused by the actions of those managers to whom affiliated directors may feel some loyalty. Consequently, audit committees may be most responsibly comprised of independent, outside directors (e.g., Firstenberg and Malkiel, 1994).

Audit committee composition has been the subject of previous discussion. The Securities and Exchange Commission, the New York Stock Exchange, the American Stock Exchange, and the National Association of Securities Dealers strongly suggest that audit committees be comprised predominately, or exclusively, of outside directors (Kesner *et al.*, 1986). The New York Stock Exchange maintains the most stringent position, requiring firms listed on this exchange to appoint independent, outside directors to the audit committee (Kesner, 1988; *The Financial Aspects of Corporate Governance*, 1992). These practices have surfaced in other countries as well. A recent report from the United Kingdom strongly suggests firms traded on the London Stock Exchange appoint outside directors to the audit committee, and that a majority of these be independent outside directors (*The Financial Aspects of Corporate Governance*, 1992).

A notable benefit of a properly apportioned audit committee is the potential to enhance shareholders' confidence that their interests are being properly safeguarded. Recent activity by institutional investors suggests that large shareholders

increasingly pay attention to chosen forms of governance, especially board subgroups (Fromson, 1990; Salwen and Lublin, 1992). The Teachers Insurance & Annuity Association; College Retirement Equities Fund (TIAA-CREF), for example, recommends that key board committees be composed entirely of unaffiliated directors (Himelstein, 1994). This focus on independent, outside directors results from their belief that too many nonexecutive directors are 'too cozy with management, either because of personal loyalties or their reliance on company-related business, to be independent' (Himelstein, 1994: 113).

A second benefit of an audit committee comprised of independent outside directors is the enhanced ability to identify and reverse a decline situation. Financial decline can occur as early as 10 years prior to the point at which a firm files bankruptcy (Hambrick and D'Aveni, 1988). Presumably, directors who maintain independence from firm management are more likely to uncover signs of decline and will be more aggressive in confronting problems. As Bibeault (1982) has noted, early detection is perhaps the most important way for directors to prevent a bankruptcy filing.

The overwhelming support for independent outside directors is typically positioned as a preference as compared to affiliated outside directors. As previously noted, the prevailing belief is that affiliated directors lack objectivity and independence from management. The Securities and Exchange Commission has provided some guidance on the types of directors believed to maintain sufficient personal or professional relationships with the firm so as to lack the necessary independence expected of an outside director (description of the SEC guidelines is found in the Methods section). This lack of independence may be especially critical for the audit committee which is directly responsible for assessing the financial health of the firm and uncovering causes of financial decline. Based on the preceding sections, we suggest that:

*Hypothesis 1: Bankrupt firms will have greater proportions of affiliated directors on the audit committee as compared to survivor firms.*

### Institutional investor holdings

Given that the majority of attention to board reform has been initiated and sustained by institutional investors, it may be important to consider the relationship between institutional investors and the incidence of bankruptcy. Institutional investors are an increasingly powerful force in corporate America. At present, institutions control more than 50 percent of all corporate equity (Firstenberg and Malkiel, 1994; Fromson, 1990; Heard, 1987; Useem, 1993; Useem *et al.*, 1993). Pension funds alone are expected to control half of corporate equity by the year 2000 (Buxbaum, 1991; Cox, 1993; Davis and Thompson, 1994; Scism, 1993). As some demonstration of institutional investors' active role in corporate governance, representatives of many of the large institutions have effectively lobbied for board seats with several major corporations (e.g., Fromson, 1990). Additionally, previous research has demonstrated that institutional holdings are inversely related to the incidence of bankruptcy 5 years prior to filing (Daily and Dalton, 1994b). We would expect institutions to be hesitant to invest in financially distressed firms. Institutions, like corporations, have a fiduciary relationship to their shareholders. As such, we might expect them to carefully monitor a firm's financial position and avoid maintaining share holdings in marginally performing firms.

*Hypothesis 2: Institutional holdings will be lower for those firms filing bankruptcy as compared to firms not filing bankruptcy.*

## THE NATURE OF A REORGANIZATION: PREPACKAGED FILINGS AND TIME IN REORGANIZATION

### The resource dependence perspective

The nature of a bankruptcy reorganization, as captured by prepackaged filings and time spent in reorganization, may also be related to firm monitoring. Consistent with resource dependence theory (Pfeffer and Salancik, 1978), affiliated directors serving on firms' audit committees may prove beneficial to the firm pursuing a prepackaged filing or seeking a relatively short reorganization period. Directors with ties to the firm's external environment may be especially critical during crisis periods such as financial decline or bankruptcy (e.g., Gales and Kesner, 1994). The resource dependence perspective has received

considerable support in boards of directors research (see Zahra and Pearce, 1989 for an excellent review).

In contrast to the independence argument advanced with respect to the relationship between audit committee composition and the incidence of a bankruptcy filing, effective monitoring may be less at issue than acquiring and maintaining critical resources when a reorganization filing is inevitable (e.g., Pfeffer and Salancik, 1978; Sutton and Callahan, 1987). Affiliated directors' established linkages between the firm and its external environment may prove to be an asset for the firm in reorganization. As pressure from the external environment intensifies, the need for directors who can effectively address these pressures also increases. Affiliated directors may be better able to assist the firm in expeditiously emerging from a reorganization filing by providing access to valued resources and information, in addition to facilitating interfirm commitments (Pfeffer and Salancik, 1978).

A prepackaged bankruptcy is a specialized Chapter 11 filing in which the firm negotiates a reorganization plan with its creditors prior to the actual bankruptcy filing (McConnell and Servaes, 1991). This process is often, but not necessarily, accompanied by a solicitation for formal acceptance of the proposed plan prior to filing. As a result of the preliminary work in gaining creditor approval of the plan, a confirmation hearing can be quickly scheduled. Perhaps the most difficult aspect of a reorganization filing is gaining creditor approval of the reorganization plan prior to filing. Prior approval, however, typically results in a dramatically shorter overall reorganization time (Altman, 1993a). Prepackaged filings are often in reorganization for a period of a few months (McConnell and Servaes, 1991). This is compared with an average of 2 years for a traditional Chapter 11 filing (e.g., Altman, 1993b; Bradley and Rosenzweig, 1992; Moulton and Thomas, 1993). This shorter time frame has the potential to save the filing firm a substantial amount of money (e.g., Altman, 1993a; see Hansen and Salerno, 1991 for a dissenting opinion).

The success of a prepackaged plan is contingent upon the ability of the firm to effectively work with creditors prior to filing. Cooperation, however, may be difficult to garner. Failing firms often resort to secretiveness, hostility and deception when dealing with creditors (Ballenger, 1994). Bankrupt firms may also fail to treat creditors as stakeholders in the company. Additionally, there is a tendency to forget that creditor groups have some incentive to work with representatives of the firm during the bankruptcy process since a reorganized firm is typically more valuable than the firm's liquidation value (e.g., LoPucki and Whitford, 1990). Directors with connections to firms' stakeholders (i.e., affiliated directors) may be more successful at convincing these groups 'to put enlightened long-term self-interest above self-destructive short-term gain' (Ballenger, 1994: A14). More importantly, some of the firm's affiliated directors may represent creditor groups directly affected by the firm's filing (e.g., customers, suppliers) and would therefore have a strong interest in quick resolution of the firm's failure.

These same arguments hold in the case of a traditional Chapter 11 filing. Often the goal is to emerge from Chapter 11 as quickly as possible. This process may be expedited by affiliated directors. The benefits of quick exit are potentially substantial. The extended time period which characterizes the average reorganization filing may consume large amounts of organizational resources and make eventual exit less probable. Directors with connections to key stakeholder groups may assist in securing creditor approval and expediting the reorganization process.

A related rationale for directors' interest in seeking quick resolution to firm failure is the reputational cost of being associated with a failed firm (e.g., D'Aveni, 1990; Gilson, 1989; Nelson, 1981; Sutton and Callahan, 1987). One of the consequences of being associated with a bankrupt firm is an increased likelihood of turnover. Better than half of directors serving a financially distressed firm can expect to lose their board seats (Gilson, 1989, 1990). This same effect has been documented prior to, as well as following, a bankruptcy filing (Gales and Kesner, 1994). As a result of these significant personal costs, directors may be more motivated than hired professionals (e.g., lawyers) to pursue actions which would result in quick resolution of the financial crisis in order to mitigate such damage.

Based on the preceding sections, we suggest that:

*Hypothesis 3: Audit committee affiliated director proportion will be positively associ-*

*ated with a prepackaged bankruptcy petition filing, as compared to those bankrupt firms not filing a prepackaged bankruptcy petition.*

*Hypothesis 4: Audit committee affiliated director proportion will be negatively associated with time spent in a Chapter 11 reorganization.*

### Institutional monitoring

Institutional investors' activity has not been entirely focused on reforming the composition and structure of corporate boards. Due to the high concentration of shares held by institutions, they also have a strong incentive to carefully monitor firm policies (Pound, 1992). The proportion of institutional investment, for example, has been found to be positively associated with firm growth (Bethel and Liebeskind, 1993) and R&D expenditures (Hansen and Hill, 1991). Since the percentage of firms' stock typically held by a given institution makes it difficult for it to easily sell its shares should the institution disagree with firm management (Coffee, 1991; Davis and Thompson, 1994; Johnson and Millon, 1993), institutions have a strong incentive for pressuring firm management to operate in an efficient manner (Pound, 1992). Consequently, we would expect institutional investors to demonstrate a preference for options that enable a firm to quickly emerge from bankruptcy. We might also expect those firms remaining in a Chapter 11 reorganization for an extended time period to have fewer institutional holdings.

*Hypothesis 5: Institutional investor equity holdings will be positively associated with a prepackaged bankruptcy petition filing.*

*Hypothesis 6: Institutional investor equity holdings will be negatively associated with time spent in a Chapter 11 reorganization.*

## METHOD

### Sample

Consistent with other studies explaining elements of bankruptcy (Daily and Dalton, 1994a, 1994b; D'Aveni, 1989; Gales and Kesner, 1994; Hambrick and D'Aveni, 1988; LoPucki and Whitford, 1993a, 1993b), this study employs a matched pair design. Fifty-three firms filing a bankruptcy reorganization petition between 1988 and 1993 and 53 matching firms not declaring bankruptcy during this same time period comprise the sample for this study. Bankrupt firms were identified in a multistage process. All firms with assets greater than $100 million at the time of their Chapter 11 filing were first identified. These firms are tracked by New Generation Research and published each year in the *Bankruptcy Yearbook and Almanac*. The focus on large firms is important because it is these firms which have been the target of the majority of board reform efforts. Also, large firm bankruptcies, while generating the minority of firm filings in terms of numbers, constitute the majority of filings in terms of firm size.

The second stage of the sample identification process involved narrowing the list of bankrupt firms to those firms that (1) were publicly traded, (2) had not filed bankruptcy for 'strategic' reasons, (3) were not operating in regulated environments, and (4) had both filed a Chapter 11 petition and had their reorganization plan confirmed between 1988 and 1993. The focus on public firms ensures the availability of data. Firms filing a 'strategic bankruptcy' were also excluded from this study (see, for example, D'Aveni, 1989; Moulton and Thomas, 1993). This excludes those firms that would have filed for nonfinancial reasons; for example, to resolve labor relations problems or to avoid product liability suits. Additionally, to avoid unlike comparisons, firms operating in regulated industries were not considered for inclusion in this study because these operating environments often impact firms' governance structures (Hermalin and Weisbach, 1988).

The criteria that all firms both filed for, and emerged from, bankruptcy during the study period was necessary in order to examine the length of time in reorganization. This time frame also reflects the time period for which prepackaged bankruptcies have been in existence. Prepackaged bankruptcies are a recent trend (McHugh, 1992). On October 1, 1986, Crystal Oil Co. filed the first reorganization filing where creditors were solicited for acceptance of the reorganization plan prior to the actual bankruptcy filing (Betker, 1995; McHugh, 1992). However, the next prepackaged filing did not occur until February 22,

1988 (Anglo Energy, Inc.) and 1988 is generally regarded as the genesis of prepackaged bankruptcies (McHugh, 1992). The 6-year time frame for this study is not believed to have biased the sample, as 93 percent of large firm Chapter 11 filings are eventually confirmed, typically in approximately 2 years (LoPucki and Whitford, 1993a; Moulton and Thomas, 1993). Moreover, the bankrupt firms in this sample represent reorganizations ranging in length between 35 days to just under $4\frac{1}{2}$ years. Eleven of the 53 bankruptcies extended beyond 2 years.

The third stage of the sample identification process involved identifying matching firms listed in *Ward's Business Directory of U.S. Private and Public Companies*. Firms were matched by industry (3-digit SIC code) and firm size (sales). Where multiple acceptable matches were identified based on industry and firm size as measured by sales, the number of full-time employees was employed as an additional criteria in selecting the matching firm. Firm age was also considered as an additional control for comparability of bankrupt and matching firms (D'Aveni, 1989). The matching process was independently reviewed by a researcher with expertise in bankruptcy research, but not involved in this project. In the few cases where there was not consensus, discussion resolved the issue in every case. Logistic regression analysis confirmed the viability of this matching process; there were no significant differences between the bankrupt and survivor firms on firm age or firm size for all 5 years of the study period ($\chi^2 = 106.00$; n.s.).

This matching process yielded a final sample of 106 firms (53 bankrupt; 53 nonbankrupt). This final sample size is comparable to past research which has examined the role of strategic leaders in bankruptcy reorganizations (e.g., Daily and Dalton, 1994a; Hambrick and D'Aveni, 1992; LoPucki and Whitford, 1993a, 1993b).

The matched pair design provides several notable advantages. This method provides a means for examining phenomena with a low base rate. Large firm bankruptcies certainly have this character (Hambrick and D'Aveni, 1988). Past research relying on similar time frames has yielded an average of less than five large firm bankruptcies per year (see, for example, Hambrick and D'Aveni, 1992; LoPucki and Whitford, 1993a, 1993b). Accordingly, our sample companies compare favorably with extant empirical examinations. Another advantage of the matched pair design is the ability to control for potential confounds. The matching process employed in this study controls for industry conditions, firm size, and firm age.

## Variables

### *Dependent variables*

Three dependent variables were used in these analyses. The first is simply the bankruptcy status of the firm. Sample firms either filed a bankruptcy petition during the study period (coded 1) or they did not (coded 0). A second focus of this study is prepackaged bankruptcies. Those bankrupt firms filing a prepackaged plan were coded as 1 and those bankrupt firms not filing a prepackaged plan were coded as 0. The third dependent variable was the length of time spent in reorganization. This is an interval level variable measured in days. Both prepackaged plans and the length of time in reorganization were provided by *The Bankruptcy Yearbook and Almanac.*

### *Independent variables*

One of the independent variables of interest is the proportion of affiliated directors serving on the audit committee. Guidelines for identifying affiliated directors were established by the Securities and Exchange Commission under Regulation 14A, Item 6(b). Consistent with these criteria, directors were classified as affiliated if they met the following guidelines: (1) employment by the corporation or an affiliate within the last 5 years; (2) any family relationship by blood or marriage closer than second cousin; (3) affiliation with a concern in the last 2 years which has had a customer, supplier, banker, or creditor relationship with the corporation; (4) affiliation with an investment banker who has performed services for the corporation within 2 years or will do so within 1 year; (5) a control person; or (6) association with a law firm engaged by the corporation. Firms are required to include this director information in annual corporate proxy filings. These data were collected for the 5 years prior to the actual bankruptcy filing date.

The second independent variable is the extent of firms' equity held by institutional investors. Institutional holdings have been found to be an

important element in past research examining the relationship between board composition and bankruptcy (Daily and Dalton, 1994b). These data were collected from *Standard and Poor's Corporation Security Owner's Stock Guide* for the 5 years prior to the actual bankruptcy filing date.

### *Control variables*

Several control variables found to be important in examinations of bankrupt firms and their governance structures have been included in this study. Two financial performance indicators—return on assets and current ratio (Flagg, Giroux, and Wiggins, 1991; D'Aveni, 1990; Hambrick and D'Aveni, 1988)—as well as two measures of slack—equity-to-debt ratio and working capital/sales—are included in these analyses (D'Aveni, 1990; Hambrick and D'Aveni, 1988). Past research has also found that bankrupt firms experience a decline in their overall board size (Gales and Kesner, 1994) and in the number of outside directors (Gales and Kesner, 1994; Hambrick and D'Aveni, 1992) in the years preceding a filing, as compared to matched survivor firms. These variables, too, are included in these analyses.

Control data were collected from *Moody's Industrial Manual, Moody's OTC Manual, Standard and Poor's Corporation Security Owner's Stock Guide*, corporate proxy filings, corporate annual reports, and corporate 10K statements for the 5-year time period prior to the actual bankruptcy filing.

### *Interaction terms*

While previous research has established the increasing importance of financial considerations for the failing firm, it may be that effective monitors are able to discern and react to financial decline. This would suggest an interaction between monitoring and financial problems. Accordingly, we rely on four interaction terms: (1) interaction between monitoring (proportion of affiliated board members on the audit committee) and the pattern of decline; (2) interaction between monitoring (percentage common stock held by institutional investors) and pattern of decline; (3) interaction between monitoring (proportion of affiliated board members on the audit committee) and overall financial status; and (4) interaction between monitoring (percentage common stock held by institutional investors) and overall financial status.

All of these interactions are the unweighted multiplicative term of the two identified variables. The variables capturing the proportion of affiliated board members on the audit committee and percentage common stock held by institutional investors have been previously described. The pattern of decline and overall financial status variables have not.

The pattern of decline variable is easily derived. Fundamentally, this variable captures the proportion of financial decline in any given year as a function of the entire decline over the 5-year period. Consider a firm with a truly precipitous decline. In such a case perhaps 85 percent of the total decline may have occurred in the first year of the 5-year period. By contrast, a firm with 20 percent decline over each of the 5 years has experienced a relatively slower descent into its bankruptcy. For the period $T5$ to $T4$, for example, this would be calculated as the financial indicators in $T5$ minus those in $T4$ (the decline over this single period) all divided by these same indicators in $T5$ minus $T1$ (the total decline). This proportion is then calculated for all periods (i.e., $T5-T4/T5-T1$, $T5-T3/T5-T1$, $T5-T2/T5-T1$). The financial indicator on which we rely period-to-period is the standardized, unweighted combination of the individual financial indicators (e.g., ROA, current ratio, equity/debt, working capital/sales).

The overall financial status variable is similar but refers to absolute value in any given years as it does not consider the pattern of decline. This variable is simply the standardized, unweighted combination of the individual financial indicators (e.g., ROA, current ratio, equity/debt, working capital/sales) for each year of the $T5$ to $T1$ period.

## ANALYSES

Given the dichotomous dependent variable and interval level independent variables, Hypotheses 1–3 and Hypothesis 5 can be simultaneously assessed with logistic regression analysis. For these analyses we rely on the likelihood-ratio (L-R) approach. The L-R approach is advantageous because it is easily interpreted and provides the hit rate common to discriminant function analysis

(see, for example, Daily and Dalton, 1994b). The interval level nature of the dependent variable in Hypotheses 4 and 6 necessitates hierarchical multiple regression analysis.

The full sample of 53 bankrupt firms and 53 survivor firms are included in the logistic regression analyses for Hypotheses 1 and 2. Remaining hypotheses (3–6) rely exclusively on the 53 bankrupt firms for hypothesis testing. For those hypotheses relying only on the bankrupt firms, firm size (natural logarithm of sales) and firm age are included in the analyses as additional control variables.

## RESULTS

Descriptive statistics (means and standard deviations) and results of *t*-tests for the independent and control variables are presented in Table 1.

As demonstrated in Table 2, these results provide no support for Hypotheses 1 and 2. There is no simple relationship between the incidence of bankruptcy and audit committee composition; bankrupt firms do not have significantly greater proportions of affiliated directors on their audit committee. The relationship between a bankruptcy reorganization filing and institutional equity holdings is also not statistically significant. These results are consistent across all 5 years of the study period.

The relationship between these monitoring bodies and the incidence of bankruptcy is apparently also not a function of some interaction between monitoring and the pattern of decline (see Table 3). While the interaction between the level of institutional holdings and the firm's financial decline is significant 4 years prior to the filing ($p < 0.05$), this relationship is not significant for remaining years.

These results do confirm that the incidence of bankruptcy is largely a function of a deterioration in firms' profitability in the 5 years preceding the actual filing. The control variables are a significant predictor of the incidence of bankruptcy for the four years prior to filing (Table 2) and for all 3 years considered in the pattern of decline models (Table 3). The logistic coefficient indicates that these results are largely a function of a decline in firms' profitability. As demonstrated in Table 1, survivor firms' profitability remained largely invariant during the 5-year study period, whereas the bankrupt firms experienced a sharp decline in profitability in the 3 years prior to filing.

Hypothesis 3 is largely unsupported as well. Review of Table 4 demonstrates no support for a positive relationship between audit committee composition and a prepackaged filing. The only significant finding is the interaction term in year *T*3. Moreover, those findings which are statistically significant are mixed in the direction of the impact of this variable (see Tables 4 and 5).

Audit committee affiliated director proportion was found to be modestly related to the length of time spent in reorganization, lending some support for Hypothesis 4 (see Tables 6 and 7). Audit committee affiliated director proportion is inversely related to the length of time spent in reorganization; those firms with greater proportions of affiliated directors spent less time in reorganization. These results should be interpreted with caution, however, as the majority of these relationships are modestly significant at the *0.10* level. Also, these results disappear with the introduction of the interaction terms.

Hypothesis 5 is also not supported. While modestly significant relationships are noted in Tables 4 and 5, these are opposite the direction hypothesized. Relying on the logistic coefficients, we can determine that the level of institutional holdings is negatively associated with a prepackaged filing in all 5 years, as compared to firms not filing a prepackaged plan. Examination of the level of institutional holdings for those firms filing a prepackaged plan indicates a relatively steady level of 15 percent across the 5-year study period. For this group, the high occurs in year *T*4 at 18 percent and the low occurs in year *T*1 at 12 percent. These holdings may be compared to those firms not filing a prepackaged plan. The average level of holdings for this group across all 5 years of this study is 28 percent. It is notable that in 3 of the 5 years the average institutional holdings in this latter group remained at 27 percent. No such consistency was noted for those firms filing a prepackaged reorganization plan.

The final hypothesis (Hypothesis 6) is rejected as well. While significant relationships are noted in 3 of the 5 years prior to a bankruptcy filing, these, too, are opposite the direction hypothesized

Table 1. Means, standard deviations, and *t*-test for independent and control variables

| Variables | *T5* Mean (S.D.) | *T4* Mean (S.D.) | *T3* Mean (S.D.) | *T2* Mean (S.D.) | *T1* Mean (S.D.) |
|---|---|---|---|---|---|
| *Audit committee composition* | $t = -1.27$ | $t = -1.42$ | $t = -0.63$ | $t = -0.60$ | $t = 0.14$ |
| Survivor | 0.63 (0.32) | 0.64 (0.31) | 0.66 (0.32) | 0.67 (0.27) | 0.69 (0.29) |
| Bankrupt | 0.72 (0.29) | 0.72 (0.28) | 0.70 (0.28) | 0.71 (0.30) | 0.68 (0.30) |
| *Institutional holdings* | $t = 0.02$ | $t = 0.00$ | $t = 0.82$ | $t = 0.61$ | $t = 2.54^{*}$ |
| Survivor | 0.25 (0.19) | 0.27 (0.18) | 0.27 (0.19) | 0.31 (0.20) | 0.34 (0.21) |
| Bankrupt | 0.25 (0.18) | 0.27 (0.19) | 0.24 (0.19) | 0.28 (0.20) | 0.24 (0.18) |
| *Return on assets* | $t = 0.87$ | $t = 1.03$ | $t = 2.93^{**}$ | $t = 4.51^{***}$ | $t = 6.18^{***}$ |
| Survivor | 0.08 (0.21) | 0.06 (0.17) | 0.06 (0.06) | 0.05 (0.06) | 0.04 (0.08) |
| Bankrupt | 0.05 (0.15) | 0.03 (0.16) | −0.03 (0.22) | −0.03 (0.12) | −0.21 (0.28) |
| *Current ratio* | $t = 2.25^{*}$ | $t = 2.01^{*}$ | $t = 3.13^{**}$ | $t = 3.13^{**}$ | $t = 3.69^{***}$ |
| Survivor | 2.68 (1.58) | 2.71 (1.61) | 2.67 (1.71) | 2.51 (1.44) | 2.65 (1.75) |
| Bankrupt | 2.03 (1.30) | 2.10 (1.51) | 1.85 (0.86) | 1.70 (1.19) | 1.46 (1.55) |
| *Equity/debt* | $t = 0.12$ | $t = 0.29$ | $t = 1.65$ | $t = 1.34$ | $t = 1.44$ |
| Survivor | 12.29 (31.79) | 5.00 (6.40) | 28.22 (112.49) | 49.99 (288.78) | 95.42 (508.60) |
| Bankrupt | 11.34 (46.55) | 4.40 (13.76) | 2.71 (6.93) | −3.82 (42.40) | −5.53 (28.11) |
| *Working capital/sales* | $t = 0.94$ | $t = 1.13$ | $t = 0.98$ | $t = 1.84^{+}$ | $t = 4.12^{***}$ |
| Survivor | 0.59 (2.38) | 0.27 (0.27) | 0.28 (0.21) | 0.25 (0.21) | 0.32 (0.41) |
| Bankrupt | 0.27 (0.44) | 0.21 (0.26) | 0.23 (0.36) | 0.11 (0.51) | −0.12 (0.66) |
| *Total directors* | $t = -0.54$ | $t = -0.44$ | $t = -0.27$ | $t = 0.93$ | $t = 2.24^{*}$ |
| Survivor | 8.56 (2.73) | 8.59 (2.77) | 8.67 (2.90) | 8.98 (2.87) | 9.04 (2.69) |
| Bankrupt | 8.90 (3.48) | 8.84 (3.04) | 8.82 (2.94) | 8.45 (2.89) | 7.91 (2.52) |
| *Outside directors* | $t = 0.77$ | $t = 1.24$ | $t = 0.79$ | $t = 1.15$ | $t = 2.31^{*}$ |
| Survivor | 1.66 (1.52) | 1.65 (1.41) | 1.63 (1.43) | 1.63 (1.40) | 1.83 (1.64) |
| Bankrupt | 1.40 (1.85) | 1.27 (1.63) | 1.39 (1.58) | 1.31 (1.42) | 1.17 (1.28) |

$^{+}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

(see Tables 6 and 7). The level of institutional holdings is positively associated with the length of time spent in reorganization.

A notable element of Tables 4 and 5 is the consistent impact of total directors and number of outside directors. A negative relationship between total directors and a prepackaged filing exists across all 5 years of this study. This pattern is invariant when the pattern of decline is considered. During the 5-year period of this study the number of total directors declines from an average high of 7.33 in year *T5* to a low of 6.5 in year *T1* for those firms filing a prepackaged plan (5-year average equals 7.35). This is compared to an overall average of 8.84 for firms not filing a prepackaged plan.

Similar findings characterize the number of outside directors. This relationship, however, is positive in all years. Those firms filing a prepackaged plan have an overall average of 1.48 outside directors. This is compared to an average of 1.26 for those firms not filing a prepackaged plan. Moreover, the number of outside directors remains relatively steady for those firms filing a prepackaged plan. Firms not filing a prepackaged plan slowly lose outside directors, with a drop from a high of 1.41 in year *T5* to 1.11 in year *T1*. An additional finding of note is the strong influence of firm age on the length of time in reorganization. Older firms would appear to be subject to extended periods of time in reorganization (Tables 6 and 7).

Table 2. Results of overall logistic regression[a]

| | *T5*[b] | *T4*[c] | *T3*[d] | *T2*[e] | *T1*[f] |
|---|---|---|---|---|---|
| *Baseline* | | | | | |
| Log-likelihood | 119.17 | 124.72 | 130.27 | 133.08 | 140.01 |
| Hit rate | 50.00% | 50.00% | 50.00% | 50.00% | 50.00% |
| *1st step* *Control variables* | | | | | |
| Return on assets | −6.42 (5.92) | −9.35 (4.29)$^{+}$ | −17.10 (5.00)$^{***}$ | −24.42 (6.36)$^{***}$ | −16.73 (4.34)$^{***}$ |
| Current ratio | −0.67 (0.49) | −0.43 (0.31) | −0.82 (0.48) | −0.43 (0.47) | −0.13 (0.25) |
| Equity/debt | −0.04 (0.03) | −0.03 (0.05) | −0.03 (0.03) | −0.10 (0.07) | −0.08 (0.06) |
| Working capital/sales | −0.61 (0.52) | −1.00 (1.93) | −0.80 (1.81) | 0.20 (1.44) | −1.75 (0.11) |
| Total directors | 0.03 (0.09) | 0.11 (0.09) | −0.03 (0.10) | −0.20 (0.10)$^{*}$ | −0.01 (0.12) |
| Outside directors | −0.08 (0.20) | −0.26 (0.21) | −0.18 (0.22) | 0.07 (0.26) | −0.45 (0.19)$^{*}$ |
| Log-likelihood | 110.92 | 111.26 | 108.21 | 90.30 | 70.91 |
| Model chi-square | 8.26 | 13.46$^{*}$ | 22.06$^{***}$ | 42.78$^{***}$ | 69.07$^{***}$ |
| Hit rate | 65.12% | 63.33% | 70.21% | 73.96% | 83.17% |
| *2nd step* *Monitoring variables* | | | | | |
| Audit committee 6(b) | 0.74 (1.10) | −0.08 (1.06) | −0.43 (1.05) | 0.77 (1.32) | 0.01 (0.26) |
| Institutional holdings | 0.95 (1.43) | 0.68 (1.34) | 1.25 (1.35) | 1.21 (1.36) | −0.64 (1.47) |
| Log-likelihood | 110.42 | 111.01 | 107.28 | 89.37 | 69.33 |
| Model chi-square | 0.50 | 0.25 | 0.92 | 0.94 | 1.42 |
| Hit rate | 65.12% | 63.33% | 70.21% | 79.17% | 84.16% |
| *3rd step* *Interaction terms* | | | | | |
| Audit × financial | 3.13 (2.84) | 0.29 (1.99) | 2.65 (4.60) | −0.98 (2.48) | 4.04 (3.83) |
| Institutional × financial | 2.47 (5.13) | 2.57 (3.33) | 2.11 (2.45) | 4.15 (3.47) | 0.65 (5.02) |
| Log-likelihood | 109.05 | 110.14 | 105.89 | 87.82 | 68.31 |
| Model chi-square | 1.37 | 0.88 | 1.39 | 1.55 | 1.44 |
| Hit rate | 62.79% | 63.33% | 74.47% | 77.08% | 85.15% |

[a]Beta (standard error); [b]$N = 86$; [c]$N = 90$; [d]$N = 94$; [e]$N = 96$; [f]$N = 100$. $^{+}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

## DISCUSSION

### Agency theory

Much has been made of the monitoring effectiveness of boards of directors, in general, and of the potentially negative effect of affiliated members of the board of directors, in particular. Similarly, researchers have suggested that increased exposure to institutional holdings provides some evidence of increased monitoring of firm management (e.g., Davis and Thompson, 1994). The results of this study, however, provide little evidence that firms with higher proportions of affiliated directors on their audit committee are less effective monitors as compared to those firms with lower proportions of affiliated directors on the audit committee. Audit committee composition does not distinguish firms on the basis of whether they file a Chapter 11 bankruptcy petition. Institutional investor holdings, too, are not significantly associated with the incidence of a bankruptcy filing.

Another notable finding is the impact of institutional investor holdings on the nature of a bankruptcy filing. Marginal support for a negative relationship between institutional investor holdings and a prepackaged filing is found in the 3 years prior to a bankruptcy filing (Table 4). More robust findings characterize the length of time spent in reorganization analyses (Tables 6 and 7). These findings are contrary to agency theory expectations which would suggest that institutions would be vigilant monitors who would press for a prepackaged filing and quick exit from Chapter

Table 3. Results of pattern of decline overall logistic regression[a]

| | *T4*[b] | *T3*[c] | *T2*[d] |
|---|---|---|---|
| *Baseline* | | | |
| Log-likelihood | 124.72 | 126.14 | 127.54 |
| Hit rate | 50.00% | 50.00% | 50.00% |
| *1st step* | | | |
| *Control variables* | | | |
| Return on assets | −5.90 (4.07) | −18.52 (6.04)*** | −24.39 (6.56)*** |
| Current ratio | −0.54 (0.26)* | −0.42 (0.30) | −0.27 (0.31) |
| Equity/debt | −0.04 (0.05) | 0.00 (0.02) | −0.08 (0.06) |
| Working capital/sales | 0.14 (1.12) | 1.24 (1.31) | 0.44 (0.87) |
| Total directors | 0.06 (0.10) | 0.00 (0.09) | −0.16 (0.12) |
| Outside directors | −0.20 (0.21) | −0.11 (0.17) | 0.02 (0.26) |
| Log-likelihood | 111.26 | 99.34 | 88.33 |
| Model chi-square | 13.56* | 26.80*** | 39.21*** |
| Hit rate | 63.33% | 71.43% | 75.00% |
| *2nd step* | | | |
| *Monitoring variables* | | | |
| Audit committee 6(b) | −0.03 (1.10) | 0.03 (0.24) | 0.50 (1.28) |
| Institutional holdings | 0.78 (1.41) | 1.53 (1.38) | 0.96 (1.38) |
| Log-likelihood | 111.01 | 97.97 | 87.48 |
| Model chi-square | 0.25 | 1.37 | 0.85 |
| Hit rate | 63.33% | 73.63% | 78.26% |
| *3rd step* | | | |
| *Interaction terms* | | | |
| Audit × loss | 2.89 (1.69) | 0.07 (0.16) | 0.50 (0.84) |
| Institutional × loss | −8.91 (4.11)* | −0.54 (1.28) | −0.45 (1.45) |
| Log-likelihood | 101.52 | 97.78 | 86.60 |
| Model chi-square | 9.49** | 0.19 | 0.88 |
| Hit rate | 66.67% | 73.63% | 79.35% |

[a]Beta (standard error); [b]$N = 90$; [c]$N = 90$; [d]$N = 92$. $^{+}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

11. This conclusion is further supported by the lack of significance of the interaction terms which might indicate that institutional investors' monitoring is more effective when the pattern of decline is slow. Based on these findings we would conclude that institutional investors may not be as active in monitoring firm management as previously thought.

## Resource dependence theory

The resource dependence role of affiliated directors also received modest support. Higher proportions of affiliated directors on the audit committee are positively associated with a prepackaged filing and negatively associated with the length of time spent in reorganization. Some caution is needed in interpreting these results, however, as several of the noted relationships are marginally significant ($p < 0.10$). Also, where significant interactions with firms' financial situation (overall condition and pattern of decline) exist, the direction of this impact is inconsistent.

Additional support for the resource dependence perspective is found in the number of outside directors on the board. Those bankrupt firms filing a prepackaged plan are uniformly characterized by significantly higher numbers of outside (unaffiliated) directors. Recall that a prepackaged filing is one that involves negotiating a reorgani-

Table 4. Results of prepackaged logistic regression[a]

| | *T5*[b] | *T4*[c] | *T3*[d] | *T2*[e] | *T1*[f] |
|---|---|---|---|---|---|
| *Baseline* | | | | | |
| Log-likelihood | 40.90 | 41.72 | 46.33 | 46.33 | 50.48 |
| Hit rate | 80.95% | 81.82% | 81.25% | 81.25% | 80.39% |
| *1st step* *Control variables* | | | | | |
| Return on assets | −18.41 (22.81) | 172.02 (416.54) | 43.11 (20.66)* | 18.75 (16.69) | −2.28 (4.06) |
| Current ratio | 0.09 (2.95) | 14.61 (36.79) | 3.13 (1.97) | 1.21 (1.53) | −1.57 (1.30) |
| Equity/debt | 0.24 (0.26) | 0.38 (0.20)+ | 0.18 (0.11) | 0.13 (0.13) | 0.05 (0.07) |
| Working capital/sales | 0.64 (6.39) | 21.18 (11.70)+ | 10.23 (12.68) | 2.53 (3.74) | 0.64 (2.02) |
| Total directors | −0.29 (0.17)+ | −0.91 (0.37)* | −0.75 (0.35)* | −0.27 (0.32) | −1.24 (0.55)* |
| Outside directors | 0.98 (0.71) | 2.56 (1.06)* | 1.91 (0.76)* | 0.69 (0.67) | 2.30 (1.09)* |
| Firm size | 0.96 (0.81) | 11.19 (20.19) | −0.84 (1.26) | 0.39 (0.78) | 0.55 (0.82) |
| Firm age | −0.08 (0.06) | −0.18 (0.07) | −0.02 (0.03) | −0.03 (0.03) | 0.02 (0.04) |
| Log-likelihood | 27.90 | 28.21 | 32.61 | 35.76 | 33.58 |
| Model chi-square | 13.00 | 13.51+ | 13.72+ | 10.57 | 16.90* |
| Hit rate | 85.71% | 86.36% | 83.33% | 81.25% | 82.35% |
| *2nd step* *Monitoring variables* | | | | | |
| Audit committee 6(b) | 3.51 (7.63) | 30.52 (70.84) | −0.88 (4.82) | −1.42 (3.96) | 8.02 (5.45) |
| Institutional holdings | −16.27 (13.18) | −19.80 (24.36) | −9.66 (5.80)+ | −5.93 (3.46)+ | −14.33 (6.87)* |
| Log-likelihood | 26.20 | 19.50 | 26.63 | 32.94 | 27.10 |
| Model chi-square | 1.70 | 8.72* | 5.98* | 2.82 | 6.49* |
| Hit rate | 90.48% | 88.64% | 85.42% | 83.33% | 92.16% |
| *3rd step* *Interaction terms* | | | | | |
| Audit × financial | 6.47 (20.91) | −209.77 (484.71) | −22.20 (10.31)* | −6.50 (5.72) | 8.05 (6.57) |
| Institutional × financial | −34.44 (35.56) | −26.39 (13.44)* | −42.69 (40.40) | −6.30 (9.72) | −16.59 (16.83) |
| Log-likelihood | 24.61 | 11.62 | 19.74 | 30.70 | 24.50 |
| Model chi-square | 1.58 | 7.88* | 6.89* | 2.24 | 2.60 |
| Hit rate | 90.48% | 90.91% | 87.50% | 83.33% | 90.20% |

[a]Beta (standard error); [b]$N = 42$; [c]$N = 44$; [d]$N = 48$; [e]$N = 48$; [f]$N = 51$. +$p < 0.10$; *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

zation plan prior to the actual bankruptcy filing. (McConnell and Servaes, 1991). It may be that firms with greater numbers of independent, outside directors are able to serve successfully as intermediaries between the focal firm and its creditor groups (e.g., Bazerman and Schoorman, 1983; Pfeffer and Salancik, 1978; Provan, 1980). These outside directors may be perceived as more legitimate than their inside and affiliated counterparts as a function of their independence from the firm and its management.

## Organizational decline

These results also confirm the impact of financial indicators on the incidence of a bankruptcy filing. The increasing importance of the control variables as the firm approaches bankruptcy provides support for the notion of a downward spiral leading to eventual failure (Daily and Dalton, 1994a; Hambrick and D'Aveni, 1988). As noted in Tables 2 and 3, these findings are largely a function of a decline in firms' profitability.

These findings also suggest that affiliated directors serving on the audit committee did not detract from firms' ability to detect the financial decline. Contrary to previous research which has documented the negative impact of the overall proportion of affiliated directors (Daily and Dalton, 1994b), this study does not demonstrate a negative impact of affiliated director proportion on the audit committee. Moreover, no interactive

Table 5. Results of pattern of decline prepackaged logistic regression[a]

| | *T*4[b] | *T*3[c] | *T*2[d] |
|---|---|---|---|
| *Baseline* | | | |
| Log-likelihood | 41.72 | 42.51 | 42.51 |
| Hit rate | 81.82% | 82.61% | 82.61% |
| *1st step* | | | |
| *Control variables* | | | |
| Return on assets | −39.77 (34.45) | 33.33 (42.24) | 10.01 (8.97) |
| Current ratio | −3.41 (2.91) | −0.50 (1.86) | −0.59 (1.05) |
| Equity/debt | 0.79 (0.63) | 0.22 (0.33) | 0.14 (0.13) |
| Working capital/sales | −9.87 (11.73) | −12.33 (6.88)$^{+}$ | −0.43 (2.51) |
| Total directors | −0.68 (0.30)$^{*}$ | −1.25 (0.64)$^{*}$ | −0.57 (0.33)$^{+}$ |
| Outside directors | 1.40 (0.57)$^{*}$ | 2.49 (1.06)$^{*}$ | 1.17 (0.54)$^{*}$ |
| Firm size | 4.44 (4.07) | 1.28 (2.85) | 0.41 (1.35) |
| Firm age | −0.08 (0.04)$^{*}$ | −0.09 (0.08) | −0.06 (0.03)$^{*}$ |
| Log-likelihood | 28.21 | 28.03 | 30.63 |
| Model chi-square | 13.51$^{+}$ | 14.48$^{+}$ | 11.88 |
| Hit rate | 83.36% | 84.78% | 86.96% |
| *2nd step* | | | |
| *Monitoring variables* | | | |
| Audit committee 6(b) | 4.56 (2.60)$^{+}$ | 8.50 (3.96)$^{*}$ | 5.46 (6.37) |
| Institutional holdings | −19.05 (20.65) | −9.98 (10.76) | −1.78 (6.20) |
| Log-likelihood | 19.50 | 21.14 | 24.84 |
| Model chi-square | 8.72$^{*}$ | 6.89$^{*}$ | 5.79$^{+}$ |
| Hit rate | 88.64% | 89.13% | 89.13% |
| *3rd step* | | | |
| *Interaction terms* | | | |
| Audit × loss | −8.78 (10.85) | 1.76 (1.01)$^{+}$ | −4.21 (1.97)$^{*}$ |
| Institutional × loss | 46.29 (53.03) | −26.83 (28.47) | 9.24 (4.48)$^{*}$ |
| Log-likelihood | 16.14 | 14.10 | 22.51 |
| Model chi-square | 3.36 | 7.04$^{*}$ | 2.33 |
| Hit rate | 90.91% | 89.13% | 91.30% |

[a]Beta (standard error); [b]$N = 44$; [c]$N = 46$; [d]$N = 46$. $^{+}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

effects are present when considering either the overall financial condition of the firm or the pattern of firms' decline. During the 5 years of the study period, firms with higher proportions of affiliated directors on the audit committee were no more, or less, likely to respond to early signs of financial trouble, as demonstrated by the lack of significance for the audit committee composition/financial position interaction terms.

These findings are noteworthy in their contradiction of the anticipated impact of affiliated directors. Prior work has suggested that early action in the face of financial decline may be dependent upon a board which is independent of firm management. Daily and Dalton (1994a), for example, found that firms with lower proportions of independent directors and the joint board leadership structure were positively associated with bankruptcy both 5 and 3 years prior to the actual filing. Another study found that firms with greater proportions of affiliated directors were positively associated with bankruptcy 5 years prior to a filing (Daily and Dalton, 1994b). These studies suggest the importance of independence for the full board of directors to prevent a bankruptcy filing.

Table 6. Results of reorganization time hierarchical multiple regression[a]

| Variables | *T5*[b] | | | *T4*[c] | | | *T3*[d] | | | *T2*[e] | | | *T1*[f] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M1 | M2 | M3 | M1 | M2 | M3 | M1 | M2 | M3 | M1 | M2 | M3 |
| Return on assets | 0.12 | 0.11 | −0.10 | 0.22 | 0.18 | 0.01 | 0.26$^{+}$ | 0.14 | −0.02 | 0.27$^{+}$ | 0.22 | 0.19 | 0.14 | 0.06 | 0.21 |
| Current ratio | 0.19 | 0.02 | −1.00 | 0.08 | 0.06 | −0.44 | 0.00 | −0.09 | −0.22 | −0.04 | −0.13 | −0.34 | −0.28 | −0.23 | −0.07 |
| Equity/debt | 0.14 | −0.02 | −0.20 | 0.12 | 0.00 | −0.36 | −0.02 | −0.07 | −0.07 | 0.11 | 0.12 | 0.05 | −0.09 | −0.02 | −0.06 |
| Working capital/sales | −0.09 | −0.03 | −0.61 | −0.14 | −0.14 | −0.67$^{+}$ | −0.13 | −0.22 | −0.38 | 0.07 | 0.10 | 0.00 | 0.25 | 0.18 | 0.28 |
| Total directors | 0.15 | 0.13 | 0.13 | 0.14 | 0.14 | 0.24 | 0.15 | 0.16 | 0.27 | 0.16 | 0.25 | 0.20 | 0.21 | 0.21 | 0.19 |
| Outside directors | −0.02 | −0.18 | −0.11 | −0.03 | −0.27 | −0.37 | −0.03 | −0.25 | −0.34 | −0.07 | −0.32 | −0.33 | 0.00 | −0.17 | −0.16 |
| Firm size | 0.04 | −0.18 | −0.23 | 0.09 | 0.05 | 0.02 | −0.06 | −0.29 | −0.36$^{+}$ | 0.16 | 0.04 | 0.12 | 0.13 | 0.07 | 0.08 |
| Firm age | 0.39$^{*}$ | 0.36$^{+}$ | 0.29 | 0.31$^{+}$ | 0.32$^{+}$ | 0.37$^{*}$ | 0.34$^{*}$ | 0.36$^{*}$ | 0.33$^{+}$ | 0.33$^{*}$ | 0.30$^{+}$ | 0.36$^{*}$ | 0.37$^{*}$ | 0.33$^{*}$ | 0.32$^{*}$ |
| Audit committee 6(b) | | −0.19 | 0.25 | | −0.37$^{+}$ | −0.23 | | −0.31$^{+}$ | −0.25 | | −0.34$^{*}$ | −0.35 | | −0.26 | −0.34$^{+}$ |
| Institutional holdings | | 0.41$^{+}$ | 0.50$^{+}$ | | 0.20 | 0.18 | | 0.41$^{*}$ | 0.44$^{*}$ | | 0.25 | 0.29 | | 0.29$^{*}$ | 0.32$^{*}$ |
| Audit × financial | | | 1.55 | | | 1.15$^{+}$ | | | 0.47 | | | −0.08 | | | −0.39 |
| Institutional × financial | | | 0.14 | | | −0.07 | | | −0.21 | | | 0.45 | | | 0.07 |
| $R^2$ | 0.25 | 0.36 | 0.42 | 0.25 | 0.36 | 0.43 | 0.23 | 0.38 | 0.41 | 0.28 | 0.40 | 0.43 | 0.29 | 0.40 | 0.41 |
| Adjusted $R^2$ | 0.07 | 0.15 | 0.17 | 0.07 | 0.16 | 0.21 | 0.07 | 0.22 | 0.21 | 0.14 | 0.24 | 0.24 | 0.16 | 0.25 | 0.22 |
| $F$ | 1.39 | 1.73 | 1.72 | 1.42 | 1.84$^{+}$ | 1.93$^{+}$ | 1.46 | 2.30$^{*}$ | 2.03$^{+}$ | 1.94$^{+}$ | 2.48$^{*}$ | 2.23$^{*}$ | 2.19$^{*}$ | 2.63$^{*}$ | 2.18$^{*}$ |

M1 = model with control variables; M2 = model with control and monitoring variables; M3 = full model with interaction terms.
[a]Values shown are the standardized regression coefficients.
[b]$N = 42$; [c]$N = 44$; [d]$N = 48$; [e]$N = 48$; [f]$N = 51$
$^{+}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

Table 7. Results of pattern of decline of reorganization time hierarchical multiple regression[a]

| Variables | *T4*[b] | | | *T3*[c] | | | *T2*[d] | | |
|---|---|---|---|---|---|---|---|---|---|
| | M1 | M2 | M3 | M1 | M2 | M3 | M1 | M2 | M3 |
| Return on assets | 0.22 | 0.18 | 0.23 | 0.30$^{+}$ | 0.17 | 0.20 | 0.27$^{+}$ | 0.22 | 0.19 |
| Current ratio | 0.08 | 0.06 | −0.13 | 0.00 | −0.08 | −0.10 | −0.04 | −0.12 | −0.15 |
| Equity/debt | 0.12 | 0.00 | −0.05 | −0.04 | −0.08 | −0.09 | 0.11 | 0.12 | 0.13 |
| Working capital/sales | −0.14 | −0.14 | −0.34 | −0.12 | −0.21 | −0.18 | 0.07 | 0.09 | 0.11 |
| Total directors | 0.14 | 0.14 | 0.13 | 0.15 | 0.17 | 0.18 | 0.18 | 0.27 | 0.22 |
| Outside directors | −0.03 | −0.27 | −0.28 | −0.04 | −0.27 | −0.27 | −0.10 | −0.36$^{+}$ | −0.37$^{+}$ |
| Firm size | 0.09 | 0.05 | 0.07 | −0.05 | −0.27 | −0.26 | 0.14 | 0.03 | 0.08 |
| Firm age | 0.31$^{+}$ | 0.32$^{+}$ | 0.34$^{+}$ | 0.31$^{+}$ | 0.35$^{*}$ | 0.34$^{+}$ | 0.34$^{*}$ | 0.32$^{+}$ | 0.35$^{*}$ |
| Audit committee 6(b) | | −0.37$^{+}$ | −0.29 | | −0.32$^{+}$ | −0.33$^{+}$ | | −0.36$^{*}$ | −0.25 |
| Institutional holdings | | 0.20 | 0.18 | | 0.36$^{+}$ | 0.37$^{+}$ | | 0.23 | 0.19 |
| Audit × loss | | | −0.42 | | | −0.20 | | | 0.69 |
| Institutional × loss | | | −0.06 | | | 0.14 | | | −0.81 |
| $R^2$ | 0.25 | 0.36 | 0.44 | 0.25 | 0.39 | 0.40 | 0.29 | 0.41 | 0.46 |
| Adjusted $R^2$ | 0.07 | 0.16 | 0.22 | 0.09 | 0.21 | 0.18 | 0.13 | 0.24 | 0.26 |
| $F$ | 1.42 | 1.84$^{+}$ | 2.02$^{+}$ | 1.53 | 2.21$^{*}$ | 1.81$^{+}$ | 1.85$^{+}$ | 2.40$^{*}$ | 2.30$^{*}$ |

M1 = model with control variables; M2 = model with control and monitoring variables; M3 = full model with interaction terms.
[a]Values shown are the standardized regression coefficients.
[b]$N = 44$; [c]$N = 46$; [d]$N = 46$
$^{+}p < 0.10$; $^{*}p < 0.05$; $^{**}p < 0.01$; $^{***}p < 0.001$

These findings, in concert with previous research investigating the relationship between the board of directors and the incidence of a bankruptcy filing, may illustrate the importance of board subgroups. The absence of a negative relationship between audit committee affiliated director proportion and the incidence of a bankruptcy filing may indicate that directors, regardless of their affiliation, consider their role as fiduciary of some importance. Perhaps membership on a critical board committee such as the audit committee serves as a reminder of directors' duty to protect shareholder interests, even in the face of personal conflicts. While these findings

do not demonstrate that affiliated directors serving on the audit committee are negatively associated with a bankruptcy filing, they also do not demonstrate any negative impact of such directors.

No support was found for the effectiveness of institutional investors' monitoring. We initially hypothesized that institutional investors would be supportive of a prepackaged filing due to the potential for substantial savings which may result from quick exit from a Chapter 11 filing (Altman, 1993a). Understandably, institutional investors wish to seek the most efficient resolution to financial crisis; in addition to being shareholders, they are responsible to shareholders. A number of researchers have noted institutions' increased activity in firm policy-making (Baysinger and Butler, 1985; Davis and Thompson, 1994; Graves and Waddock, 1994). Much of this activity is a result of institutions' reduced ability to do 'The Wall Street Walk' (Davis and Thompson, 1994: 154; see also Bainbridge, 1993; Gordon, 1994; Useem *et al.*, 1993) when they become dissatisfied with firm performance. The relative enormity of institutions' holdings make it difficult to sell their shares to anyone other than other institutions.

Table 2 may illustrate the difficulty institutions face in exiting declining firms. During the 5-year period of this study, institutional holdings remain relatively stable for those firms eventually filing a bankruptcy petition. From *T*5 to *T*1 bankrupt firms experience a slight 1 percent decrease in the percentage of their stock held by institutions. This is contrasted with the 36 percent increase during this same time period for firms not filing bankruptcy. The amount of stock held by institutions in the survivor firms steadily increases from 25 percent to 34 percent. We would also note that both the bankrupt and survivor firms were characterized by the same level of institutional holdings at *T*5. While institutions may not have had the ability to exit these declining firms, neither did they increase their holdings in these firms during the decline.

Perhaps, then, institutions do not become active monitors until a bankruptcy filing is imminent. Tables 4 and 5 indicate that during the 'death spiral' stage (Hambrick and D'Aveni, 1988), institutional holdings are significantly negatively associated with a prepackaged filing. This finding, in conjunction with the stable overall pattern of institutional ownership for bankrupt firms during this same period, may suggest that institutional investors increase their level of monitoring activity in the final stages of decline. Increased monitoring at this point may stifle managers' ability to seek a prepackaged plan. Institutional intervention may complicate any negotiations with other creditor groups. Also, managers may simply anticipate difficulty in securing approval from institutions, and, therefore, avoid pursuing the prepackaged reorganization option.

A similar conclusion would apply to the length of time spent in reorganization. The finding that institutional investors are associated with longer time periods in reorganization may also indicate that institutions are active participants in the development of a reorganization plan. Institutions may be reluctant to approve plans put forth by the very management that led the organization into bankruptcy. Institutions' past activity in corporate affairs may enable them to participate more effectively in the reorganization process as a result of an overall increased knowledge of the firm's situation. Also, as shareholders, institutions' claims in a bankruptcy reorganization are subordinated to higher priority claimants. This, too, might encourage institutions to actively monitor the reorganization process with the intent of protecting the value of their claims.

Two other findings of note are the impact of the size of the board on the propensity to file a prepackaged plan and the impact of firm age on the length of time spent in reorganization.

## CONCLUSION

While we would be uncomfortable suggesting that organizational observers discontinue their focus on board reforms targeted at decreasing the presence of affiliated directors on corporate boards, these findings do suggest that a strong emphasis on the monitoring role of affiliated directors on audit committees may be misplaced. Bibeault's (1982) observation that the board of directors plays a role in preventing decline, in part by monitoring the financial condition of the firm, would seem most applicable to the board as a whole, as compared to the audit committee. The findings reported here are some demonstration that increased attention to the functions and impact of critical board subgroups is needed.

Attention to the composition of audit commit-

tees almost certainly extends beyond their role as firm monitors. While these results indicate that affiliated directors serving on the audit committee are not associated with an increased incidence of bankruptcy, the potential for conflict of interests may arise in other than crisis situations. The audit committee, for example, is responsible for the selection and oversight of firms' internal and external auditors (*The Financial Aspects of Corporate Governance*, 1992). As a function of their relationship with the firm and/or its management, we might expect differing levels of vigilance for those directors with ties to the firm, as compared to those directors with no such ties. Affiliated directors, for example, may be more likely to allow firm management to select outside auditors and set their fees, as is custom, as compared to independent outside directors (see, for example, Firstenberg and Malkiel, 1994). The placement of directors' loyalties is certainly deserving of further attention.

The noted positive relationship between the audit committee affiliated director proportion and time spent in reorganization may provide some evidence that at the subgroup level board composition best fits the resource dependence perspective. Higher proportions of affiliated directors serving on the audit committee may utilize their knowledge of the firm as a function of their SEC 6(b) relationship as well as their external contacts as a function of their status as nonmanagement directors to assist the firm in effectively negotiating its way through the bankruptcy reorganization process.

Also consistent with the resource dependence perspective is the finding that outside directors are positively associated with a prepackaged bankruptcy filing. Here, too, the connections that the independent outside director brings to the negotiation process may assist the firm in convincing creditor groups to agree to a proposed reorganization plan prior to the formal bankruptcy filing. Independence from the firm may be especially crucial in this instance in order to gain the trust of creditor groups. Affiliated directors may be viewed as less credible given their relationship to firm management.

These findings also suggest the need to consider more carefully the role of institutional investors. Perhaps institutions' activism is more limited in scope than previously thought. It may be that institutions focus on reforming firms' internal governance structures (e.g., Fromson, 1990), leaving the actual monitoring function to appropriately structured boards. Institutional activism may not be apparent until the firm is already entrenched in a crisis situation such as the death spiral toward bankruptcy. In this respect, institutional investors may behave very much like boards of directors. Lorsch and MacIver (1989) have observed that boards are most active during crisis situations.

We might also note that institutions with holdings in declining or bankrupt firms have some incentive to become active monitors. Institutional investment managers are under pressures quite similar to the corporate manager. Both the corporate and institutional investment manager are expected to provide shareholders with an appropriate return on their investment. Increasing one's activism in the declining or bankrupt firm, then, may serve as face-saving on the part of the investment manager. It is here that investment managers must demonstrate their effectiveness in their fiduciary duties. Perhaps one means for demonstrating monitoring activity is to resist management's proposal for a prepackaged filing. Also, it might be expected that institutional monitoring would extend the length of time in reorganization through negotiating issues affecting the value of institutions' claims.

The results of this study are intriguing; they offer support for both the agency and resource dependence perspectives. The relationship between institutional investor holdings and the nature of a bankruptcy filing is supportive of the agency perspective. The relationship between audit committee composition and the nature of a bankruptcy filing is supportive of the resource dependence perspective. By focusing predominately on the monitoring role of directors, practitioners and scholars alike may fail to appreciate the potential value of affiliated directors during a bankruptcy reorganization. These findings may suggest that current thinking regarding the presence of affiliated directors on the audit committee may be rather conservative. Wide-scale prescriptions limiting the presence of affiliated directors on audit committees may be ill-advised.

Similarly, the academic and popular presses may overstate the extent to which institutional investors actively monitor firm management, a subject of considerable debate in the academic literature (see, for example, Barnard, 1991; Black,

1992; Brickley, Lease, and Smith, 1988; Cox, 1993; Davis and Thompson, 1994; Graves, 1988; Thompson, 1994). These results suggest that it may take a precipitous financial decline or an actual bankruptcy filing to induce institutional investors to actively monitor firm management. Should this be the case, the unification of ownership and control predicted as the result of the dramatic rise in institutional holdings may not yield the anticipated performance effects (see, for example, Coffee, 1994; Johnson and Millon, 1993).

We hope that this study serves to encourage future research directed at uncoupling the relationship between firms' internal (e.g., board committees) and external (institutional investors) monitors and their association with firm performance. An enhanced understanding of the circumstances under which affiliated directors are likely to prove detrimental to the firm and the conditions that impel institutions to become active in monitoring management and influencing corporate policy is needed to more fully appreciate firms' governance structures.

## REFERENCES


Altman, E. I. (1993a). 'Emerging trends in bankruptcy reorganization'. In E. Altman (ed.), *Bankruptcy and Distressed Restructurings: Analytical Issues and Investment Opportunities*. Business One Irwin, Homewood, IL, pp. 401–417.

Altman, E. I. (1993b). *Corporate Financial Distress and Bankruptcy*. Wiley, New York.

Bainbridge, S. M. (1993). 'Independent directors and the ALI corporate governance project', *George Washington Law Review*, **61**, pp. 1034–1083.

Baldwin, F. R. (1984). *Conflicting Interests*. D. C. Heath, Lexington, MA.

Ballenger, B. W. (24 October 1994). 'Within a hair's-breadth of bankruptcy', *Wall Street Journal*, p. A14.

Barnard, J. W. (1991). 'Institutional investors and the new corporate governance', *North Carolina Law Review*, **69**, pp. 1135–1187.

Baysinger, B. D. and H. N. Butler (1985). 'Corporate governance and the board of directors: Performance effects of changes in board composition', *Journal of Law, Economics, and Organization*, **1**, pp. 101–124.

Baysinger, B. D. and R. E. Hoskisson (1990). 'The composition of boards of directors and strategic control', *Academy of Management Review*, **15**, pp. 72–87.

Bazerman, M. H. and F. D. Schoorman (1983). 'A limited rationality model of interlocking directorates', *Academy of Management Review*, **8**, pp. 206–217.

Bethel, J. E. and J. Liebeskind (1993). 'The effects of ownership structure on corporate restructuring', *Strategic Management Journal*, Summer Special Issue, **14**, pp. 15–31.

Betker, B. L. (1995). 'An empirical examination of prepackaged bankruptcy', *Financial Management*, **24**(1), pp. 3–18.

Bettman, J. and B. Weitz (1983). 'Attributions in the boardroom: Causal reasoning in corporate annual reports', *Administrative Science Quarterly*, **28**, pp. 165–183.

Bibeault, D. B. (1982). *Corporate Turnaround*. McGraw-Hill, New York.

Bilimoria, D. and S. K. Piderit (1994). 'Board committee membership: Effects of sex-based bias', *Academy of Management Journal*, **37**, pp. 1453–1477.

Black, B. S. (1992). 'Agents watching agents: The promise of institutional investor voice', *UCLA Law Review*, **39**(4), pp. 811–893.

Bradley, M. and M. Rosenzweig (1992). 'The untenable case for Chapter 11', *Yale Law Journal*, **101**, pp. 1043–1090.

Brickley, J. A., R. C. Lease and C. W. Smith (1988). 'Ownership structure and voting on antitakeover amendments', *Journal of Financial Economics*, **20**, pp. 267–291.

Buxbaum, R. M. (1991). 'Institutional owners and corporate managers: A comparative perspective,' *Brooklyn Law Review*, **57**(1), pp. 1–53.

Chaganti, R. S., V. Mahajan and S. Sharma (1985). 'Corporate board size, composition and corporate failures in retailing industry', *Journal of Management Studies*, **22**, pp. 400–417.

Cieri, R. M., P. F. Sullivan and H. Lennox (1994). 'The fiduciary duties of directors of financially troubled companies', *Journal of Bankruptcy Law and Practice*, **3**(4), pp. 405–422.

Clapham, S. E. and C. R. Schwenk (1991). 'Self-serving attributions, managerial cognition, and company performance', *Strategic Management Journal*, **12**(3), pp. 219–229.

Coffee, J. C. (1991). 'Liquidity versus control: The institutional investor as corporate monitor', *Columbia Law Review*, **91**(6), pp. 1277–1368.

Coffee, J. C. (1994). 'The SEC and the institutional investor: A half-time report', *Cardozo Law Review*, **15**(4), pp. 837–907.

Committee on the Financial Aspects of Corporate Governance (1992). *The Financial Aspects of Corporate Governance*. Gee, London.

Cox, J. D. (1993). 'The ALI, institutionalization, and disclosure: The quest for the outside director's spine', *George Washington Law Review*, **61**, pp. 1233–1273.

Daily, C. M. (1994). 'Bankruptcy in strategic studies: Past and promise', *Journal of Management*, **20**, pp. 263–295.

Daily, C. M. and D. R. Dalton (1994a). 'Corporate governance and the bankrupt firm', *Strategic Management Journal*, **15**(8), pp. 643–654.

Daily, C. M. and D. R. Dalton (1994b). 'Bankruptcy and corporate governance: The impact of board

composition and structure', *Academy of Management Journal*, **37**, pp. 1603–1617.
D'Aveni, R. A. (1989). 'The aftermath of organizational decline: A longitudinal study of the strategic and managerial characteristics of declining firms', *Academy of Management Journal*, **32**, pp. 577–605.
D'Aveni, R. A. (1990). 'Top managerial prestige and organizational bankruptcy', *Organization Science*, **1**, pp. 121–142.
Davis, G. F. and T. A. Thompson (1994). 'A social movement perspective on corporate control', *Administrative Science Quarterly*, **39**, pp. 141–173.
Eisenhardt, K. M. (1989). 'Agency theory: An assessment and review', *Academy of Management Review*, **14**, pp. 57–74.
Firstenberg, P. B. and B. G. Malkiel (Fall 1994). 'The twenty-first century boardroom: Who will be in charge?', *Sloan Management Review*, pp. 27–35.
Flagg, J. C., G. A. Giroux and C. E. Wiggins (1991). 'Predicting corporate bankruptcy using failing firms', *Review of Financial Economics*, **1**, pp. 67–78.
Fromson, B. D. (30 July 1990). 'The big owners roar', *Fortune*, pp. 66–78.
Gales, L. M. and I. F. Kesner (1994). 'An analysis of board of director size and composition in bankrupt organizations', *Journal of Business Research*, **30**(3), pp. 271–282.
Geneen, H. (1984). *Managing*. Doubleday, New York.
Gilson, S. C. (1989). 'Management turnover and financial distress', *Journal of Financial Economics*, **25**, pp. 241–262.
Gilson, S. C. (1990). 'Bankruptcy, boards, banks, and blockholders', *Journal of Financial Economics*, **27**, pp. 355–387.
Gordon, J. N. (1994). 'Institutions as relational investors: A new look at cumulative voting', *Columbia Law Review*, **94**(1), pp. 124–192.
Graves, S. B. (1988). 'Institutional ownership and corporate R&D in the computer industry', *Academy of Management Journal*, **31**, pp. 417–428.
Graves, S. B. and S. A. Waddock (1994). 'Institutional owners and corporate social performance', *Academy of Management Journal*, **37**, pp. 1034–1046.
Hambrick, D. C. and R. A. D'Aveni (1988). 'Large corporate failures as downward spirals', *Administrative Science Quarterly*, **33**, pp. 1–23.
Hambrick, D. C. and R. A. D'Aveni (1992). 'Top team deterioration as part of the downward spiral of large corporate bankruptcies', *Management Science*, **38**, pp. 1445–1466.
Hansen, G. and C. Hill (1991). 'Are institutional investors myopic? A time-series study of four technology-driven industries', *Strategic Management Journal*, **12**(1), pp. 1–16.
Hansen, C. D. and T. J. Salerno (1991). 'A prepackaged bankruptcy strategy', *Journal of Business Strategy*, **12**, pp. 36–41.
Heard, J. E. (1987). 'Pension funds and contests for corporate control', *California Management Review*, **29**(2), pp. 89–100.
Hermalin, B. and M. Weisbach (1988). 'The determinants of board composition', *RAND Journal of Economics*, **19**, pp. 589–606.
Himelstein, L. (2 May 1994). 'Boardrooms: The ties that blind?', *Business Week*, pp. 112–114.
Jensen, M. C. (1988). 'Takeovers: Their causes and consequences', *Journal of Economic Perspectives*, **2**, pp. 21–48.
Jensen, M. and W. Meckling (1976). 'Theory of the firm: Managerial behavior, agency costs, and ownership structure', *Journal of Financial Economics*, **11**, pp. 305–360.
Johnson, L. and D. Millon (1993). 'Corporate takeovers and corporate law: Who's in control?', *George Washington Law Review*, **61**, pp. 1177–1211.
Kesner, I. F. (1988). 'Director characteristics and committee membership: An investigation of type, occupation, tenure, and gender', *Academy of Management Journal*, **31**, pp. 66–84.
Kesner, I. F. and R. B. Johnson (1990). 'Crisis in the boardroom: Fact and fiction', *Academy of Management Executive*, **4**(1), pp. 23–35.
Kesner, I. F., B. Victor and B. T. Lamont (1986). 'Board composition and the commission of illegal acts: An investigation of *Fortune* 500 companies', *Academy of Management Journal*, **29**, pp. 789–799.
LoPucki, L. M. and W. C. Whitford (1990). 'Bargaining over equity's share in the bankruptcy reorganization of large, publicly held companies', *University of Pennsylvania Law Review*, **139**, pp. 125–196.
LoPucki, L. M. and W. C. Whitford (1993a). 'Patterns in the bankruptcy reorganization of large, publicly held companies', *Cornell Law Review*, **78**, pp. 597–618.
LoPucki, L. M. and W. C. Whitford (1993b). 'Corporate governance in the bankruptcy reorganization of large, publicly held companies', *University of Pennsylvania Law Review*, **141**, pp. 669–800.
Lorsch, J. W. and E. MacIver (1989). *Pawns or Potentates: The Reality of America's Corporate Boards*. Harvard Business School Press, Boston, MA.
Mace, M. (1971). *Directors: Myth and Reality*. Harvard University, Boston, MA.
McConnell, J. and H. Servaes (1991). 'The economics of pre-packaged bankruptcy', *Journal of Applied Corporate Finance*, **4**, pp. 93–97.
McHugh, C. (ed.) (1992). *The Bankruptcy Yearbook and Almanac 1991*. New Generation Research, Boston, MA.
Moulton, W. N. and H. Thomas (1993). 'Bankruptcy as a deliberate strategy: Theoretical consideration and empirical evidence', *Strategic Management Journal*, **14**(2), pp. 125–135.
Nelson, P. B. (1981). *Corporations in Crisis*. Praeger, New York.
Normann, R. (1971). Organizational innovativeness: Product variation and reorientation', *Administrative Science Quarterly*, **16**, pp. 203–215.
Ocasio, W. (1995). 'The enactment of economic adversity: A reconciliation of theories of failure-induced change and threat–rigidity'. In L. L. Cummings and B. M. Staw (eds.), *Research in Organizational Behavior*. JAI Press, Greenwich, CT, pp. 287–331.
Pearce, J. A. and S. A. Zahra (1992). 'Board composition from a strategic contingency perspective',

*Journal of Management Studies*, **29**, pp. 411–438.

Pfeffer, J. and G. R. Salancik (1978). *The External Control of Organizations: A Resource Dependence Perspective*. Harper & Row, New York.

Pound, J. (1992). 'Beyond takeovers: Politics comes to corporate control', *Harvard Business Review*, **70**(2), pp. 83–93.

Provan, K. G. (1980). 'Board power and organizational effectiveness among human service agencies', *Academy of Management Journal*, **23**, pp. 221–236.

Salancik, G. R. and J. Meindl (1984). 'Corporate attributions as strategic illusions of management control', *Administrative Science Quarterly*, **29**, pp. 238–254.

Salwen, K. G. and J. S. Lublin (27 April 1992). 'Giant investors flex their muscles more at U.S. corporations', *Wall Street Journal*, p. A1.

Scism, L. (6 January 1993). 'Bottom-line activism of CalPERS pays off, new study indicates', *Wall Street Journal*, p. C1.

Staw, B. M., P. McKechnie and S. Puffer (1983). 'The justification of organizational performance', *Administrative Science Quarterly*, **28**, pp. 582–600.

Staw, B. M., L. E. Sandelands and J. E. Dutton (1981). 'Threat–rigidity effects in organizational behavior: A multi-level analysis', *Administrative Science Quarterly*, **26**, pp. 501–524.

Sutton, R. I. and A. L. Callahan (1987). 'The stigma of bankruptcy: Spoiled organizational image and its management', *Academy of Management Journal*, **30**, pp. 405–436.

Thompson, L. M. (Summer 1994). 'A corporate governance committee of the board', *Directors & Boards*, pp. 37–39.

Useem, M. (1993). *Executive Defense: Shareholder Power and Corporate Reorganization*. Harvard University Press, Cambridge, MA.

Useem, M., E. H. Bowman, J. Myatt and C. W. Irvine (1993). 'U.S. institutional investors look at corporate governance in the 1990s', *European Management Journal*, **11**, pp. 175–189.

Walsh, J. P. and J. K. Seward (1990). 'On the efficiency of internal and external corporate control mechanisms', *Academy of Management Review*, **15**, pp. 421–458.

Zahra, S. A. and J. A. Pearce (1989). 'Boards of directors and corporate financial performance: A review and integrative model', *Journal of Management*, **15**, pp. 291–334.