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Who initiates restructuring: The effects of managerial versus board controls and characteristics

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WHO INITIATES RESTRUCTURING: THE EFFECTS OF MANAGERIAL VERSUS BOARD CONTROLS AND CHARACTERISTICS

A Dissertation

by

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ABSTRACT

Who Initiates Restructuring: The Effects of Managerial versus Board Controls and Characteristics. (August 1992)

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The purpose of this research is to examine the question of who initiates restructuring, the board or top management. The proposed model of who initiates restructuring incorporates organizational economics (agency theory and the market for corporate control literature) and strategic management theory (external and internal contingencies). Based on the integration of the aforementioned research streams, the decision of who initiates restructuring and when it is initiated is contingent on the governance devices in operation. Internal control and governance mechanisms used by the board to monitor top management, the controls used by managers to process information, manager and board member equity stakes, and board structural variables such as board composition, size, and tenure affect the decision process. The model posits that top management can initiate restructuring at any time whereas the board becomes involved when performance suffers. Given that board pressure to restructure the firm is inadequate to force restructuring, board initiated restructuring (CEO dismissal) becomes more probable. The aforementioned factors are hypothesized to affect board and managerial action.

Results suggest that board and CEO equity are negatively related to board initiated restructuring (CEO dismissal) while board structural

variables such as board composition and board member tenure are positively related to board initiated restructuring. Managerial emphasis on strategic controls was found to be negatively related to board involvement and board initiated restructuring. These results suggest that equity holdings on the part of management and the board and emphasis on strategic controls may lead to manager initiated restructuring. This research also suggests that board-initiated restructuring occurs at a significantly lower level of performance than does manager-initiated restructuring.

Future research might focus on finer-grained measures of board involvement and board composition. Greater understanding of how the board applies pressure and what types of pressure are most effective may increase our understanding of firm governance. The implications and timing of governance changes and their effect on strategic change should be examined using longitudinal methodology. Causal relationships and greater understanding of the long-term implications of governance changes on the strategy-environment fit as well as firm performance would benefit from such inquiry. Finally, restructuring represents a major change in both firm strategy and structure, future research should examine the process of change and how managerial incentives and controls are modified after restructuring is completed.

ACKNOWLEDGEMENTS

The title sheet of this dissertation bears only one name but it has been shaped (and bled on) by several individuals. I would like to thank all the members of my committee who directly influenced this research and those individuals who indirectly aided in its completion.

First of all, I would like to thank my chair, Bob Hoskisson. Bob involved me in numerous research projects, both as a graduate assistant and later, as a co-investigator. The time I have spent under his mentorship has been invaluable. He has been a constant source of support during the entire process although he may may have gotten more than he bargained for. On many occasions I sought his advice and found him to be very deliberate and thoughtful (especially with my first conference presentation). I feel fortunate in that I had the opportunity to work with Bob and hope to work with him in the future.

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Tom Turk has the unique ability to see problems with great clarity. He is one of the more focused individuals I have ever met and uses this ability with a high degree of skill. My association with Tom has helped me to focus on one idea as opposed to many and for that I am thankful.

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CHAPTER I

INTRODUCTION

Throughout the 1980s, the financial press often focused on "corporate raiders" and takeovers. However, less dramatic manifestations of the same market forces (i.e. current owners) are accomplishing significant restructuring of corporate America. Even if the "raiders" were to disappear, the market for corporate control (owners and potential owners) would continue to pressure management to seek out more efficient forms of organization and better uses for corporate assets. Within the past few years, boards have become more assertive and are forcing CEOs out of office at an increasing rate (Wall Street Journal, June 6, 1991; Business Week, July 3, 1989). In addition, the board has increased their level of involvement in firm operations (Business Week, April 20, 1992a).

For example, the chairman of General Motors, Robert C. Stempel, not only faces mounting losses ($6.4 billion in two years) but must contend with having "his wings publicly clipped by his own board of directors" (Wall Street Journal, April 8, 1992). Mr. Stempel was replaced as head of the executive committee of the board by an outside director, John G. Smale, who stated that "the board will change its role to function more clearly as a channel for outside directors to keep tabs on management" (Wall Street Journal, April 8, 1992). Subsequent to the change, General Motors reduced its number of inside

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This dissertation follows the style guide of the Academy of Management Journal.

directors to three, clearly a minority (Business Week, April 20, 1992b).

Factors Affecting Restructuring

The increase in board involvement and restructuring indicated above seems to be influenced by a number of factors. Some of these factors more fully explained below are: 1) relaxation of antitrust law enforcement during the Reagan administration (Jensen, 1988; Scherer, 1990); 2) a change in the tax policy in 1981 that resulted in a decrease in the level of retained earnings (Turk & Baysinger, 1992); 3) deregulation in the financial services, oil and gas, and transportation industries (Jensen, 1988); 4) changes in financing for takeovers (e.g. junk bonds); and 5) the realization by management that the product diversification practices of the 1960s and 1970s were no longer valued by the market (Williams. Paez, & Sanders, 1988) especially where global markets are involved (Hitt, Hoskisson, and Harrison, 1991).

During the Reagan Administration, antitrust laws were less aggressively pursued by Executive order (Turk & Baysinger, 1992). This lack of enforcement opened the door for large scale related diversification and more specifically horizontal mergers (Turk, Harrison, & Hoskisson (1992). Prior to 1981, related and horizontal mergers were considered illegal according to antitrust statutes because they could decrease competition in the industry. One example of this lack of enforcement is Frank Lorenzo's (CEO of Texas Air) acquisition of Continental Airlines and Eastern Airlines. During the 1970s such activity would have been challenged by the government because it

decreased the number of competitors in the industry thereby decreasing competition. This decrease in competition could lead to collusion or the ability to set prices. Repeated lack of action concerning related mergers signalled that this type of activity would not meet with resistance.

Changes in tax laws have also led to a change in the financial marketplace. Specifically, in the 1960s and 1970s, cash distributed to investors in the form of dividends could impose a significant tax liability (Turk & Baysinger, 1992; Salter & Weinhold, 1980). By retaining earnings, top management saved investors money by exposing them to lower capital gains rates. In 1981 and again in 1986, tax cuts substantially decreased the tax penalty for dividends. Therefore, the optimal level of retained earnings available to managers was reduced because shareholders would demand cash distributions from their investments (Turk & Baysinger, 1992). This in turn would leave less funds available for continuous diversification.

Deregulation in the financial services industry resulted in a large-scale consolidation of the industry. The rapid rise of investment banks underwriting high-leverage junk bonds to finance takeovers has dramatically increased investment banks' income (Brooks, 1987). In addition, institutional investors control assets worth more than $6 trillion and account for nearly 45% of all outstanding equities (Taylor, 1990). The combination of a few investment banks controlling these enormous amounts of funds and their underwriting of junk bonds resulted in abundant capital for financing takeovers. The end result was a more active market for corporate control in the 1980s.

Lastly, research by Williams et al (1988) found that divestitures of unrelated businesses accounted for more than half of all divestitures in the early 1980s. The conclusion reached was that corporate managers were redefining the scope of highly diversified firms by reducing the number of business units managed and increasing the average degree of business relatedness (Williams, et al, 1988: 412). This suggests that the market placed less value on highly diversified firms and instead emphasized the need for refocusing in order to meet global competitiveness issues (Porter, 1987; Hitt, Hoskisson & Ireland, 1990). In essence, restructuring represents a change in the firm's basic strategic orientation in response to external environmental changes. These aforementioned changes have led to inefficiencies in firms which have not restructured to take them into account. These pressures for restructuring show up as decreased operating efficiencies, poor performance, and ultimately, increased pressure to divest business units which no longer fit a specific corporate focus. Restructuring, therefore, represents a logical alternative after internal control mechanisms indicate there is a problem (usually indicated by poor performance). Therefore, the central issue is what are the antecedents of corporate restructuring and what types of governance mechanisms and internal control systems are likely to lead to restructuring. Also, who is more likely to initiate action given the aforementioned internal control and governance mechanisms, managers, boards, owners, or potential owners (raiders).

Corporate restructuring can take many forms and has been an active

strategy among larger enterprises for much of this century (Chandler, 1962). The sale of business units or acquisition of other corporations is clearly not new to corporate America. The principal difference between restructuring in the 1980s and earlier periods is the magnitude of the phenomenon and the fact that highly visible corporations are engaging in the process (Wall Street Journal, August 12, 1985). Bowman and Singh (1990) cite evidence that 30 percent of the largest 1000 firms in the U.S. have undergone financial restructurings (debt refinancing, debt for equity swaps, employee stock option plans) or operational restructurings (strategic reorientations, divestitures, and refocusing of assets) since the early 1980s. The next section examines how the aforementioned factors may lead to restructuring.

What Triggers Restructuring?

Financial economists assume there is a market for corporate control which serves to discipline managers by removing them. The principal concern for researchers relates to inefficiencies in the market for corporate control introduced by public policy (e.g., anti-takeover amendments) and takeover defenses (e.g., poison pills, greenmail). Within this framework managers who were displaced were poor performers and, therefore, needed to be displaced (Manne, 1965). Firm performance is the most commonly utilized indicator of the need for change (Jensen & Ruback, 1983; Jarrell, Brickley, & Netter, 1988; Hoskisson & Johnson, 1989). Although the market for corporate control may trigger restructuring, initiation of restructuring will come from the board of directors or top management. Top management has the

option to restructure the firm when performance begins to suffer. However, the board may intervene only when performance suffers severe decline or has remained poor relative to that of other competitors for some period of time. Walsh and Seward (1990) argued that the board will attempt to determine whether the manager is at fault before initiating action, although some research indicates the manager can be scapegoated (Walsh & Seward, 1990).

For the purposes of this dissertation, voluntary corporate restructuring is defined as a period of multiple divestitures within a large multiproduct firm which were not the direct target of a takeover attempt, leveraged buyout, or tender offer. Restructuring also involves strategic refocusing, defined as reorientation of firm strategy toward a set of core businesses or a signal that overall corporate strategy has changed significantly. The ultimate control mechanism driving the restructuring process is the market for corporate control. This mechanism represents the final option in disciplining managers by wresting control from them. The next section examines who initiates voluntary corporate restructuring.

Who Initiates Restructuring?

The following section outlines examples of board initiated and top management initiated restructuring. The first example, Honeywell Inc., represents board of director initiated restructuring. In 1987, The CEO of Honeywell Inc. was replaced by Mr. James J. Renier. A resolution of the board of directors dated December 1986, formally removed the incumbent CEO because of depressed earnings over the last 3 years.

Upon assuming the position of CEO and chairman of the board, Mr. Renier initiated a restructuring effort which was completed with the spin-off of Alliant Techsystems Inc. in September 1990 (Wall Street Journal, October 1, 1990a). Between 1987 and 1990, Honeywell sold off its medical electronics and computer businesses to PPG Industries in 1987 and Bull HN, a subsidiary of Groupe Bull of France, in August 1990 (Wall Street Journal, August 9, 1990b) respectively, its defense communications and production operations to TIE-Communications in 1987, the training and control systems military avionics division to Hughes Aircraft in 1988, and parts of its semiconductor businesses to Atmel in 1988 and Advanced Flex in 1990. These business units were divested in order to allow a focus on a core business where Honeywell has a competitive advantage (Wall Street Journal, October 1, 1990a). At the end of this restructuring effort, Honeywell's remaining businesses were built around their electronic control systems operations. The value of the divested business units sold off during this period represented 29.7% of their total assets.

The American Cyanamid example that follows represents a managerial initiated restructuring. George Sella, Jr., CEO of American Cyanamid Company, instituted a restructuring plan in 1987 after firm performance had fallen roughly 5 percent over the last three years. American Cyanamid engaged in an asset sell-off program to focus on core medical, agricultural, and specialty chemical lines. Proceeds from the divestitures are being used to hike R&D efforts, especially for Lederle Lab's drugs (Business Week, October 19, 1990). Between 1988 and 1990, American Cyanamid divested its Formica brand products, dye making

businesses, and the Jacqueline Cochran fine fragrance and skin care operations in 1988. During 1990, Pine-Sol and Combat Insecticides were sold to Clorox, Breck hair care was sold to Greyhound, Proctor and Gamble purchased the bulk of the Shulton Group (toiletries) including Old Spice, Sure, and Secret deodorants (Wall Street Journal, June 14, 1990c), the Household Products division was divested, and 33 percent of the Chemicals Groups businesses were sold to allow the redirection of the chemicals business into specialty products. The total value of business units divested between 1988 and 1990 amounted to 18 percent of total assets.

In this dissertation, it is argued that owners (shareholders), specifically large block shareholders, coupled with the market for corporate control (potential owners) may not play an active role until a total breakdown in internal control is apparent, as indicated by severe performance problems. Prior to intervention by the market for corporate control, the decision to restructure rests with those individuals charged with running the firm, namely, managers, and in a decision control role, the board. The basic premise of this research is that the decision to restructure will depend on the incentives, controls and monitoring capabilities of the board and management.

Restructuring, therefore, may be a response to internal control mechanisms indicating performance difficulties. If incentives aligning managerial decisions with shareholder interests are inappropriate, then restructuring becomes a likely alternative (Johnson, Hoskisson & Margulies, 1990). Ravenscraft and Scherer (1987) noted that poor managerial control may be a primary reason for the sell-off of business

units purchased in the 1960s and 1970s. The basic premise of this scenario is that a driving force behind restructuring represents a refocusing to obtain better control and to correct governance and managerial incentive problems (Hoskisson & Turk, 1990).

Although prior theory informs us regarding agency conditions of corporate restructuring (Hoskisson & Turk, 1990), the specific events (external or internal) and who initiates restructuring (managers or the board) have not been examined. Greater understanding of the process may be obtained from an integration of economics (market for corporate control and agency theory) and management theory (external and internal contingencies). Specifically, this study examines the effect of firm governance (board characteristics), top management attributes, and external factors) on the decision to restructure. The purpose of this study, then, is to examine the conditions which result in the incidence of restructuring and to develop a model capable of predicting restructuring and who initiates it.

The basic premise of this dissertation is that the relationship between poor performance and restructuring is influenced by firm governance and other attributes of top management and the board (e.g. the tenure of team members, makeup of the board). In this context, governance represent controls utilized by the board in their monitoring duties (e.g. incentive contracts), and internal controls represent control systems used by top management to obtain and process information from both sources internal (e.g. divisional managers) and external to the firm (e.g. market data, industry trends, and general environmental issues).

Theory developed in this study argues that firms, having adequate governance and internal controls, restructure before firms with inadequate internal controls. Of course, the terms adequate and inadequate refer to a level or degree of internal control effectiveness. Firms having effective internal controls should, by definition, have less need to restructure, in general because changes occur continuously. Control adequacy then may determine the magnitude of the performance problem. This suggests that firms using more adequate controls will realize the need for change and presumably take steps to correct deficiencies prior to firms which have either inadequate incentives for managers or poor information regarding environmental changes. Moreover, firms utilizing adequate internal controls would be restructured by managers whereas firms without adequate controls would be restructured by board action. As above, managers operating with adequate internal controls would likely make the necessary changes whereas poor information may result in board action to determine what needs to be done.

The model proposed in this dissertation which details governance and control characteristics will be used to explain the actions of the board, top management, and external influences on restructuring. Again, poor firm performance is considered one of the primary antecedents of corporate restructuring (Jain, 1985; Jensen & Ruback, 1983; Sicherman & Pettway, 1987). Actions of potential owners (market for corporate control) and current block shareholders are contingent on the level of performance thus leaving a discrete interval of time in which either top management or the board can initiate restructuring.

It is argued that the decision of when to restructure and who initiates restructuring is contingent on the internal control mechanisms used by the board to monitor top management, the controls used by managers to process information, manager and board member equity stakes, board structural variables such as board composition, size, and tenure, and the nature of external influences such as takeovers in the industry in which the firm competes, performance relative to other comparable firms, and future expected events or trends in the industry. Hoskisson and Turk (1990) argue, also, that diversification is a likely precursor to restructuring. Research by Hoskisson and Johnson (1992) suggests that the level of diversification is strategically relevant, as it may lead to a decrease in long-run performance (Hoskisson, Hitt, & Hill, 1991) and a decrease in the level of research and development expenditures (Baysinger & Hoskisson, 1989; Hoskisson & Hitt, 1988).

Organization of the Dissertation

The ideas introduced herein are developed in the succeeding chapters. In Chapter II, a model is developed which argues which antecedent conditions and motives influence the decision to restructure. The components of this model draw on literature from financial economics, strategic management, and organization theory to formulate a model of factors leading to restructuring. Aspects of agency theory, leadership, and group processes were be integrated into a framework. Theoretical arguments and hypotheses were developed that relate the expected effect of different factors on the decision to restructure and who restructures the firm. Perceptual measures of

internal control systems and managerial motivations to restructure were examined to determine how strongly the proposed factors are perceived by managers to influence their decisions.

In Chapter III, the methodology for testing the hypotheses generated in Chapter II will be examined. This chapter discusses issues of sampling, operationalizations of dependent, independent, and control variables. Also, the statistical methodology employed is discussed with emphasis on what variables will be utilized and how each hypothesis will be tested. In addition, results of statistical procedures used to create the financial and strategic control factors (through the use of factor analysis) will be outlined. Finally, validity tests of the board involvement question and inter-rater reliability on survey items will be presented and discussed.

Chapter IV primarily deals with the results obtained from tests of hypotheses generated in Chapter II. Correlational analysis as well as the logistic and linear regression findings will be presented.

The final chapter, Chapter V, will be used to discuss in detail the results of hypothesis testing, the ramifications of the findings and how they fit the proposed and existing theory, the limitations of the dissertation and directions for future research.

CHAPTER II

OVERVIEW AND MODEL DEVELOPMENT

A Model of Corporate Restructuring

Figure 1 depicts a proposed model to explain the actions of the board, managers, and external pressures on restructuring. The following sections discuss the constructs of the model in turn, starting with firm performance and proceeding through the external and internal participants that trigger restructuring.

Firm Performance

The model shown in Figure 1 is based on the idea that firm performance acts as a signal indicating the need for organization change. This does not imply that firm performance is the only cause for restructuring, rather it may be the most easily visible criterion. As previously mentioned, poor financial performance is positively related to restructuring (Jain, 1985; Jensen & Ruback, 1983; Sicherman & Pettway, 1987; Hoskisson & Johnson, 1989). Additionally, the level of performance may affect the type of restructuring (e.g. voluntary vs takeover). Proponents of agency theory assume that a market for corporate control exists and is called into play when managers are not maximizing shareholder wealth; i.e. when a significant agency problem exists (Fama & Jensen, 1983; Jensen, 1986). An agency problem arises due to a separation of ownership and control and indicates that managerial decisions are not aligned with those of shareholders. In agency theory, poor performance is a signal of an agency problem. If

the magnitude of the agency problem causes severe performance drops, the market for corporate control acts through a takeover to replace incumbent management. The next section addresses the effect of owners (shareholders) and the market for corporate control on the relationship between firm performance and restructuring.

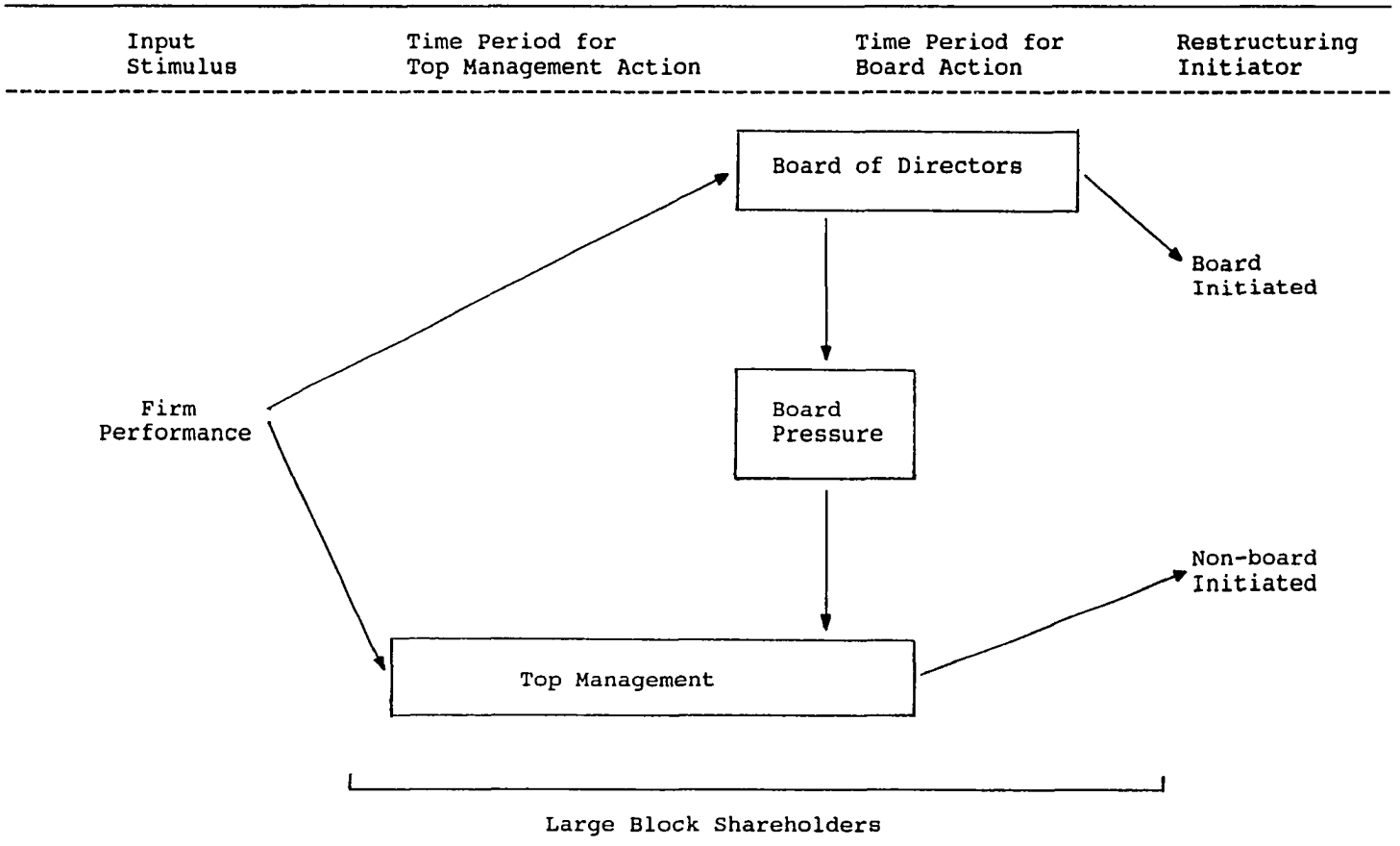
Shareholders and the Market for Corporate Control

The market for corporate control may be viewed as the arena in which alternate management teams (corporate raiders) compete for the right to manage corporate resources at the request of the owners (Fama, 1980; Jensen & Ruback, 1983). The primary trigger for the market for corporate control is poor firm performance relative to estimated potential performance.

Following Berle and Mean's (1932) thesis concerning the separation of ownership and control, evidence suggests that stockholder power is diffuse. Stockholders are presumed to be too numerous and to have too few holdings to motivate any coordinated activity to control the firm (Marris, 1964). Research by Gomez-Mejia, Tosi, and Hinken (1987) found that in firms with dominant external shareholders, defined as individuals or organizations holding at least 5 percent of a firm's stock, performance is a significant predictor of CEO's compensation. This 5 percent ownership level is commonly used to indicate external influence because this level of ownership requires the filing of a 13-D with the Securities Exchange Commission (SEC). Still others have suggested that holding more than 0.2 percent of the stock may give an individual some degree of influence (Demsetz & Lehn, 1985).

FIGURE 1

Model Testing the Effect of Governance Devices, Incentives, and Internal Controls on Board versus Non-Board Initiated Restructuring



The logical extension of this argument is that concentration of stockholdings increases managerial accountability to shareholders.

Equity ownership or a high stake in a firm's outstanding equity should provide adequate incentives for managers, board members, and stockholders to initiate and support projects or changes that increase firm value and therefore their own wealth (Jensen & Warner, 1988). Although this may be true for an individual, it may not hold when groups are charged with monitoring decisions or proposing them. In the case of a group of shareholders, shirking and free-riding may occur if a given shareholder assumes that another shareholder will monitor managerial decisions. Agency theorists have identified this as a problem in governing the firm when equity ownership is dispersed (Alchian & Demsetz, 1972). Schleifer & Vishny (1986) argued that as the number of shareholders increases, the incentive to monitor managerial performance decreases. In general, it is posited that general lack of concentrated owners gives management a "freer hand" in decision making. Therefore, poor firm performance brought about by managerial control loss or incentive breakdowns would appear to be more prevalent in cases where shareholder ownership is more atomistic.

In recent years, the threat of capital market intervention has increased because of two primary factors: 1) an increase in institutional ownership, and 2) deregulation of investment banks and the innovation of junk bond financing. The rapid rise of investment banks underwriting high leverage junk bonds to finance takeovers has dramatically increased their income (Brooks, 1987). In addition, Taylor (1990) outlines the rise of institutional ownership in the last

forty years. In 1950, institutional investors owned 8% of outstanding corporate equity, but in 1980, these same institutions owned 33% of corporate equity. At present, institutional investors control assets that are worth more than $6 trillion and account for nearly 45% of all outstanding equities.

Hirschman (1970) argued that in times of troubled performance an organization's constituents face a choice: they can "exit" the firm (sell their holdings) or exercise "voice" (use their leverage and resources to help restore performance). The use of "voice" has become increasingly more common in recent years (Coffee, 1988; Taylor, 1990). The increasing amount of assets controlled by institutional investors coupled with the rise of investment banks and the advent of junk bonds made the market for corporate control more prevalent in the 1980's. More recently, junk bonds financing has fallen off due to government restrictions on savings and loan investment, and Michael Milken's indictment.

While the use of "voice" (ownership) or the threat of capital market intervention (potential ownership) as a mechanism for disciplining managers through the threat of dismissal appear effective, the performance level at which they become a threat has not been documented. In theory, a point of performance is reached (low point) where intervention (i.e. takeover) becomes profitable. In a study of tender offers between 1956 and 1970, Smiley (1976) found that managers need not worry about tender offers until the value of firm stock decreases by about 13 percent. Prior to reaching this break even point, the market for corporate control will not be a direct threat

since the marginal cost of pursuing a takeover is greater than the expected marginal return of reallocating firm assets.

Therefore, prior to capital market intervention, current large-block shareholders may represent a primary mechanism through which change is initiated. As performance continues to drop, the probability of direct action by shareholders increases. Of course, the presence of a corporate raider or other individuals interested in obtaining a controlling interest in the firm may create an incentive for large block shareholders or institutional investors to "exit" (i.e. sell their shares to potential owners). On the other hand, large block shareholders may sell their shares as the price drops to cut their losses. However, the precise performance level at which large shareholders sell their shares and "exit" the firm versus exercising "voice" and pressing for change remains undocumented.

The presence of a large block shareholder or institutional investors may be enough to pressure management to restructure the firm. Firms with large shareholders, institutional or otherwise, will be more likely to restructure for a given level of performance. These investors have incentives to identify the need to restructure and the influence to force it before it becomes obvious to all market participants that restructuring is needed. Research by Hoskisson and Johnson (1992) supports this view in that they found the presence of large block shareholders was negatively related to the incidence of corporate restructuring. This finding suggests that large block shareholders take action prior to performance declining to such an extent that a major restructuring is needed.

The proposed model argues that the market for corporate control, although present, is an implied threat and affects all firms similarly. The model depicted in Figure 1 suggests large block holders moderate the relationship between firm performance and the decision to restructure. When firm performance falls below expected values, the presence of large block shareholders will increase pressure for restructuring be it board or manager initiated restructuring. As performance falls there may be some initial inaction, this may be due to the transaction costs involved in monitoring management, obtaining appropriate information (which is not costless), determining what the gains to shareholders might be from either a takeover or managerial dismissal, and determining what needs to be done once incumbent management is disciplined (punished) or dismissed.

The primary responsibility for determining what to do when firm performance falls is left to the board and top management. Thus, when firm performance is low but not low enough to invite a takeover, either top managers or the board may initiate voluntary restructuring to correct "potential" performance problems. The next section reviews the responsibilities of the board and top management and how conflicts may arise.

Role of the Board and Top Management

Formal agency theory was developed from the understanding that the modern corporation is not owned generally by managers. Therefore, it is argued that a specialization of responsibilities has occurred in which managers coordinate business activities and make decisions

concerning firm operations (Jensen & Meckling, 1976). Owners (shareholders) bear the financial risk and stand to gain the difference between those monies required for present and future firm operations and the total revenue of the firm (Fama & Jensen, 1983). Shareholders have the opportunity to diversify their holdings at a low cost in order to minimize their losses should the firm fail. That is, they can buy stock in several different firms in order to decrease their risk exposure to fluctuations in firm stock price. As shareholders continue to diversify their stock ownership, their ownership in a given company generally becomes more atomistic. This decreased equity stake in any given firm leads to a reduced incentive for shareholders to exercise their monitoring rights. Thus, a conflict of interest may develop between the owners and managers due to the separation of ownership and control (Berle & Means, 1932). To compensate for the diffusion of ownership (and thus control) and the potential agency problem associated with the lack of incentive to monitor, shareholders elect a board of directors to hire, fire, and evaluate management.

Board function. Agency theory provides a framework through which researchers can examine the conflict between the owners and managers. Jensen and Meckling (1976, p. 308) defined the agency relationship as "a contract under which one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent." Research on restructuring utilizing agency theory has focused primarily on the previously mentioned market for corporate control as well as

governance controls, such as that exercised by the board of directors. The board of directors essentially has two control mechanisms at their disposal, incentive contracts and managerial discipline or dismissal (Walsh & Seward, 1990). In the formal sense, the board also has authority to ratify and monitor business decisions, "decision control" (Fama & Jensen, 1983). Fama (1980, p. 294) noted, that the board's "most important role is to scrutinize the highest decision makers in the firm." Similarly, Mizruchi (1983, p. 433) stated that the board of directors was "the ultimate center of control in a publicly held corporation."

The role of the board is subject to considerable debate. Agency theorists cast the board as a guardian of shareholder welfare (Fama & Jensen, 1983). Others argue that management both selects and dominates the board (Mace, 1971; Pfeffer, 1972). This perspective characterizes the board as little more than a "rubber stamp" which is used only to legitimize managerial decisions. Still others argue that the board composition is a moderator of firm efficiency (Baysinger & Butler, 1985; Mizruchi, 1983). In addition, research in managerial succession has found that the board appears increasingly willing to dismiss inefficient managers (Dalton & Kesner, 1985; Wall Street Journal, June 6, 1991). This increased willingness to replace managers may be due to the threat of shareholder liability suits aimed at the board or the aforementioned power of institutional investors. In view of the above discussion, this dissertation argues that monitoring by the board affects the relationship between firm performance and restructuring. The incentives and ability of board members to effectively monitor

managerial decisions may lead to less severe declines in performance prior to restructuring. Firms in which board members lack adequate incentives or monitoring abilities might be expected to suffer more severe declines in performance prior to restructuring.

Top management function. In contrast to the board, the CEO or top management represents the agent(s) hired by the board to make decisions regarding firm operations. Agency theorists (e.g. Fama & Jensen, 1983) argue that the firm's managers are charged with operating the firm while the shareholders bear the risk of firm failure and are compensated as residual claimants for accepting this risk.

In a similar light, organization theorists see the CEO as the principal decision maker in the firm. The strategic importance of the CEO in a large corporation has been widely acknowledged (Lorange, 1980). Child (1972) argues that the CEO occupies a critical role in determining how the firm adapts to changes in external and internal contingencies. This strategic choice view emphasizes the role of learning and choice in organizational adaptation. These choices may range across the manipulation of the environmental features to making them more accommodating, to organizational goals, strategies and structures, and the actual choice of environments in which the firm competes (Miles & Cameron, 1982).

Building on theory involving organizational evolution (e.g. Miller & Friesen, 1984), Tushman and Romanelli (1985) argued that organizations evolve through periods of relative equilibrium which are interspersed with strategic reorientations. Strategic reorientations

represent discontinuities in the life of the firm and may involve simultaneous shifts throughout all divisions and functional areas of the organization. This viewpoint focuses on strategic reorientations as a mechanism through which firms constrained by structural inertial forces can realign themselves with current environmental demands. This reorientation of firm strategy and structure is primarily the responsibility of the CEO. In addition, top management must mediate between inertial forces for stability and external forces pressuring for change (Pfeffer & Salancik, 1978). Both the agency theory approach and the strategic choice approach support the notion that the CEO plays a prominent role in directing the firm.

Types of Restructuring

From a strategic choice perspective, two basic groups may initiate voluntary restructuring: Top management and the board. External factors affecting the firm, such as perceived threat of takeover, changing competitive conditions, governmental legislation and consequently lower performance may indicate the need for restructuring. However, the actual process is initiated by the board or top management (absent external takeover).

Top management may seek to restructure the firm for several reasons. For example, management may initiate restructuring because firm performance is not reaching expected levels. This does not imply that the firm is performing poorly relative to industry averages, rather it implies that overall firm profitability is deemed unsatisfactory. In this case, management may restructure the firm to

improve performance by divesting problem business units that don't "fit" the present or future strategy (Hite, Owers, & Rogers, 1987). Similarly, top management may determine that the firm should take advantage of existing opportunities or changes in the environment (Porter, 1987; Tushman & Romanelli, 1985) in order to improve performance. Firms pursuing this direction would presumably have internal control mechanisms which are fairly effective but not so effective as to predict the need for restructuring prior to a decline in performance. As mentioned in chapter I, firms utilizing efficient and effective internal strategic control and governance devices would predict the need for restructuring prior to severe performance problems. These firms would, in theory, be in a constant state of restructuring and would continually be modifying their controls, structure, and strategy to find the "best" fit between strategy and environment. Alternatively, loss of managerial has been suggested as one of the reasons to initiate restructuring (Hoskisson & Turk, 1990). In this case, restructuring is initiated to regain strategic control capability. For example, this is a likely alternative in firms facing industry uncertainty (such as in R&D intensive industries) which requires strong strategic control (Hoskisson & Hitt, 1988). Similarly, managers of poorly performing firms may restructure their firms in the face of the threat of dismissal (internal) or perceived threat of capital market intervention (external). In this case, managers would restructure the firm in order to prevent job loss through a change in managers or takeover.

Board initiated restructurings generally are limited to altering

managerial incentive contracts to allow better board control. Specifically, the board can realign managerial incentives to minimize differences between managerial preferences and those of the shareholders. Certainly, the board may also employ its power of dismissal in cases where the CEO is deemed incompetent or negligent (Walsh & Seward, 1990). Such action, however, requires the ability to attribute poor performance to the manager as opposed to circumstances outside of his or her control (Morck, Schleifer & Vishny, 1989). The use of strategic controls through the presence of inside directors (Baysinger & Hoskisson, 1990) would be important in this case, unless the CEO is being used as a scapegoat (Walsh & Seward, 1990). A steady decline in performance over a period of time may force the board to pressure management to restructure the firm (discipline short of dismissal). This facet of restructuring is represented in Figure 1 as board involvement. In this scenario, the board may pressure top management for change prior to taking more drastic action such as CEO dismissal. The removal of Robert Stempel from the executive committee at General Motors represents an example of board involvement and discipline short of dismissal.

The above discussion suggests that managers may initiate restructuring at any point in time (given board approval). The most common trigger would seem to be declining performance. As performance continues to decline (absent managerial action), the board may become involved and press for change. If appropriate action is not taken, the board can move from a discipline mode to active consideration of CEO dismissal. The alternative if the CEO is not dismissed and the board

does not take action is the market for corporate control. However, in this study all restructurings were voluntary, implying managerial or board action. The above arguments suggest that board initiated restructurings will occur at lower levels of performance than manager initiated restructurings.

External contingencies (external threats) are assumed to be dealt with primarily by management. However, improper incentives and control systems may alter managerial willingness to react in the most advantageous or timely manner. This may, in turn, lead to board initiated restructuring. Given the above discussion of governance and internal controls as moderators of the performance-restructuring relationship, several theoretical research streams can be utilized to explain who will initiate restructuring. The principal determinants of who initiates restructuring appear to be based on the following theoretical constructs: 1) equity ownership, 2) board structure and board and managerial characteristics, and 3) internal controls for evaluation and information processing.

Agency theory, as mentioned above, is a framework through which researchers can examine the problems arising from conflicts of interest between owners and managers. One of the constructs most commonly used in agency theory to examine managerial alignment with shareholder interests are their incentive contracts and equity holdings. The equity holdings of top management, the board, and large block shareholders can be used to examine choices made by these groups, thereby illustrating the magnitude of the agency problem. This assertion is based on the assumption that individuals will make

decisions for the good of the shareholders (thereby minimizing the agency problem) when they are "bonded" to firm outcomes.

The characteristics of the board and top management can also be examined using agency theory as well as upper echelon theory "demography" (Hambrick & Mason, 1984). Governance literature would suggest that board and top management demography can be used to explain board member incentive to monitor top management and the effectiveness of such monitoring. Similarly, upper echelon theory utilizes constructs that evaluate the dynamic nature of groups, how they affect change or the lack of it, and how individual characteristics of the board and top management may influence the propensity for change.

Research examining internal control theory relies on the type of information being collected and processed by corporate level managers and the board. Research in this stream suggests that the type of information, qualitative or quantitative, that is collected or used to evaluate managerial decisions can affect managerial decision outcomes. Specifically, the amount of risk managers will take in proposing new projects or strategies, the time horizon used to determine future goals, profitability targets, and the perceived need to respond to environmental change may influence managerial decisions. Subjective information processed through the use of strategic control contains more complete information about the external and internal environment than does quantitative information collected through financial control procedures. Internal control procedures may, therefore, influence who will initiate restructuring. The hypotheses generated in the next section are based on the above constructs and address the incentives

the board and management have to initiate restructuring.

Hypothesis Development

Hypotheses presented in this section examine the following research questions: Who initiates restructuring and to what degree the board becomes involved in pressing for change (discipline short of dismissal). Therefore, hypothesis development will proceed with a discussion of who initiates restructuring based on the aforementioned determinants: Ownership, board structure, board and managerial characteristics, and internal controls for evaluation and information processing.

Hypotheses pertaining to board involvement utilize the same arguments as board versus non-board restructuring and are therefore not restated. The exception to this is board equity, which is restated to reflect different relationships.

Ownership

Consistent with the above arguments, agency theory predicts that increasing equity ownership of a firm's outstanding equity should provide adequate incentives for managers and board members, to initiate and support projects or changes that increase firm value and therefore their own wealth (Jensen & Warner, 1988). In addition, individual shareholders may adopt shirking and free-riding tendencies under the assumption that someone else will monitor managerial decisions. In a similar manner, directors may also fall victim to the same pressures as individual shareholders. That is, they may not perform their

monitoring function with the necessary vigilance to promote decisions consistent with increasing firm value due to a small equity stake in the firm. An additional problem is that outside directors may not have adequate incentives to monitor management, because a decrease in firm performance will have a negligible effect on their personal wealth and their compensation is not tied to firm performance. This is not to say that incentives do not exist to promote board monitoring, rather, that increased equity ownership will provide further incentive to monitor. The ultimate commitment of the board to defend stockholders' interests may depend on the presence of a board member with large stockholdings to initiate and encourage critical assessments of managerial proposals. Research by Miller and Komorita (1987) concluded that to the extent that outside directors with negligible equity holdings have no initial preference for certain decisions, board members with large equity holdings are likely to initiate and lead coalitions and be highly influential in the board's ultimate decisions (Davis, 1969). High equity ownership on the part of a few board members may provide the increased incentives to actively monitor managers.

The previous discussion would suggest that board members "decision control" may be influenced by their "bonding" to firm outcomes. In this context, the decision to restructure the firm may be contingent on the board members' equity stake in the firm. A high level of equity holdings should result in a greater degree of "bonding" to firm outcomes and therefore an increase in monitoring activity. This increase in monitoring and "bonding" should increase board willingness to press for changes when performance declines. Consistent with the

above arguments, the absence of high board member equity stakes could lead to a lack of action until performance declined to the point where the board initiates restructuring. Hence:

Hypothesis 1: Board equity holdings are negatively related to board initiated restructuring.

Hypothesis 1A: Board equity holdings are positively related to board involvement.

Consistent with the above discussion, high managerial equity holdings, in theory, should bond managerial actions to shareholder interests (i.e., maximization of shareholder wealth through firm performance (Fama & Jensen, 1983)). Previous research has shown that high equity ownership by top management decreases the prospect of managerial interests diverging from those of shareholders in the case of takeovers (Turk, 1992), greenmail decisions (Dann & DeAngelo, 1983; Kosnik, 1987, 1990), and the adoption of poison pill amendments (Malatesta & Walkling, 1988). This research would suggest that managers would initiate restructuring when they have a large equity stake in the firm. A decision not to restructure the firm would seem counter-intuitive, as the manager would be sacrificing his personal welfare with no foreseeable gain and the possibility of dismissal. Thus, the following hypothesis is presented:

Hypothesis 2: CEO equity holdings are negatively related to board initiated restructuring.

Board Structure and Board and Managerial Characteristics

Demographic characteristics are important in understanding and managing organizations because they allow a determination of similarity

between group members (Pfeffer, 1985). This is an important factor to consider when a group of board or top management team members are making decisions regarding firm strategy. As discussed below, similarity among group members may lead to single-mindedness or a "groupthink" condition. This condition may in turn inhibit or restrict the alternative solutions the group may propose to solve an existing problem. In addition, research on group dynamics (e.g. Hambrick & Mason, 1984; McGrath, 1984; O'Reilly, Caldwell, & Barnett, 1989) draws upon organization demographic factors to gain insight into group processes and decision making. The major demographic factors present in decisions involving organization change appear to be tenure, composition, and size of the group charged with decision making authority. Factors that were not considered applicable to the internal control argument for restructuring were age, sex, functional background, and educational experience. These factors were not included as they are not as closely related to the internal control arguments as are tenure, size and composition of the board. These three factors specifically address the ability the board has in monitoring top management decisions. In addition, research has shown that organizational tenure affects the willingness of individuals to initiate or support change.

Tenure. Research on group dynamics has indicated that the amount of time (tenure) an individual has been associated with the firm and the variance of tenure time across individuals is relevant to decision making and group performance. Specifically, organizational tenure has

been found to be positively related to increased reliance on standard practices and traditions (Katz, 1982) and conformity to values and expectations of organizational leaders (Salancik, 1977). The older the organization is, the more likely that tradition and precedent have become ingrained into firm operations. These inertial processes are further accentuated the more homogenous the group is, the greater its tenure, and the greater its degree of ownership (Allen & Panian, 1982; Katz, 1982; Wagner, Pfeffer, & O'Reilly, 1984). The rationale for this outcome is that an individual's openness and creativity may be highest when first joining the firm (Pfeffer, 1983).

New group members are also susceptible to group pressures for conformity when they are new to the firm, strongly value membership in the group, or are unsure how to proceed (McGrath, 1984). Over time, the desire for membership, uncertainty, and pressure to conform may serve to increase group cohesiveness. Thus, top management teams or board members are more likely to experience increased cohesiveness as the average period of tenure increases. In addition, a new member of the board or top management team will presumably undergo some period of socialization. Bacon and Brown (1975) argued that effective performance on the part of an outside board member may require 3-5 years of training. Influence at board meetings may be limited during this time and be construed as "rocking the boat" (Patton & Baker, 1987). Seniority as a member brings with it the ability to provide superior insights (Weidenbaum, 1984) but may also lead to inaction due to the desire to maintain cohesiveness or allegiances (Hackman & Morris, 1975). In this case, firm performance may suffer.

Studies examining board turnover suggest that boards experiencing low turnover tolerates top management inefficiency which, in turn, leads to poor performance (Business Week, May 18, 1987; Vance, 1983). The previous discussion suggests that organizational tenure, be it as a top management team member or member of the board, may lead to inertia and the lack of action when changes need to be made. Research by Kiesler and Sproull (1982) and Staw, Sandelands, and Dutton (1981) suggests that once an environmental threat is registered, the response of highly inertial systems to that threat is frequently increased reliance on traditional response patterns. Therefore, organizational tenure may decrease the effectiveness of internal governance and control mechanisms. Although adequate internal control mechanisms may exist, top management or, for that matter, the board, may not propose any changes. This line of reasoning stems from research on executive succession (discussed below) and appears to contradict agency theory predictions. More appropriately, it suggests that governance devices may be compromised to some extent when the individual or group of individuals has been in power for an extended period of time. Research on executive succession (Tushman & Romanelli, 1985; McEachern, 1975; Gordon & Rosen, 1981) and organization turnaround (Hofer, 1980; Nadler & Tushman, 1989) suggests that radical changes in the firm are more effective when the CEO is replaced prior to the change because higher organizational tenure leads to a lack of action in the face of needed change. Research by Miller (1991) found that CEO tenure was inversely related to the prescribed match between the organization and the environment, especially when the firm faced a high degree of

uncertainty. Therefore tenure of the CEO would be negatively related to restructuring because of the aforementioned reliance on traditional response patterns and the potential for "groupthink" (Janis, 1982) among the top management team. In essence, increased CEO tenure may lead to the need for restructuring but may not occur unless there is a change in the CEO. In this case, board initiated restructuring would seem likely. In this light, the following hypothesis is proposed:

Hypothesis 3: There is a positive relationship between CEO tenure and board initiated restructuring.

Both Pfeffer (1983) and Priem (1990) suggest that the frequency distribution of the characteristic across the population, reflecting demographic homogeneity or heterogeneity, may hold greater promise than simple averages of the characteristics. Interpersonal interactions among group members may induce changes in their individual preferences and behavior and thus influence the performance of decision-making groups. Therefore, heterogeneity in board member tenure will be operationalized as the coefficient of variation i.e. standard deviation divided by mean board tenure (Allison, 1978). Firms with boards that have a large variation in tenure times will be more likely to dismiss the CEO because cohesion and allegiances will be more difficult to establish or maintain (Fredrickson, Hambrick, & Baumrin, 1988). In addition, heterogeneity should decrease the tendency toward groupthink and organizational inertia. Since high variance in tenure times appears to increase the likelihood of CEO dismissal and should decrease inertial responses to needed change (Kiesler & Sproull, 1982), board action should be more prevalent. Therefore, it is proposed that when

board member tenure is heterogeneous (varies considerably) there is an increased likelihood that the board will initiate restructuring. Thus:

> Hypothesis 4: Heterogeneity in board member tenure is positively related to board initiated restructuring.

Board composition and size. The distinction between outsiders and insiders may be critical to the performance of the firm. On one hand, insiders can provide more detailed information concerning firm operations that enhances the monitoring capabilities of board members (Baysinger & Hoskisson, 1990). The primary limitation of insiders is that they may be beholden to the CEO for their jobs and are unlikely to challenge the CEO in a board meeting (Geneen, 1984; Patton & Baker, 1987). Outsiders, on the other hand, are envisioned to be aligned with stockholders' interests and may represent the true "guardians" of shareholder wealth. The primary responsibility for the monitoring of top management, then, rests with the outsiders, who should have similar interests as the shareholders given that they are independent of the firm (Mizruchi, 1983) and have the incentive to maintain their reputations as decision control experts (Fama & Jensen, 1983). Given that board decisions are determined through voting, the composition of the board may influence its' ratification and monitoring duties.

There is some empirical support for the assertion that outsiders are aligned with shareholder interests. In cases where firm performance is declining, CEO dismissal becomes more likely (Coughlan & Schmidt, 1985; Weisbach, 1988; Warner, Watts, & Wruck, 1988). Fama and Jensen (1983, p. 315) argued that "outside directors will monitor the management that chooses them because outside directors have incentives

to develop reputations in decision control." In addition, the value of their human capital depends primarily on their performance as internal decision managers because they can demonstrate that: 1) they are decision experts and 2) that they can work with various decision control systems (Fama & Jensen, 1983). Because these directors do not have firm-specific knowledge they may rely on financial information as opposed to the presumably more subjective knowledge of insiders (Baysinger & Hoskisson, 1989). Outside directors focus on the bottom line, and the fact that they represent the principal monitoring component (Byrd & Hickman, 1991) may serve to enhance their alignment with shareholders and press for change or CEO dismissal. Indeed, results from Hermalin and Weisbach (1988) suggest that firms add outsiders to their boards following poor performance. Outside directors may, therefore, play a major role in the decision to restructure the firm. Inside directors would also play a role in restructuring the firm, but it may be more in the form of providing strategically relevant information to the board as a whole. Regardless of the types of internal controls, strategic or financial, inside members would presumably have better information. One could argue, however, that inside members would be reluctant to propose sweeping changes if they run contrary to the CEO's plan. Controversial decisions such as replacing the CEO may be more likely made by outside members of the board. Given the above arguments, as the ratio of outsider directors to total board members increases, the board would be expected to press for change and should therefore be positively related to restructuring. Therefore, the following hypothesis is proposed:

Hypothesis 5: As the ratio of outside board members to total board members increases, the likelihood of board initiated restructuring increases.

Similarly, the size of the board could be viewed as a factor affecting cohesiveness and group dynamics and, thus, control. Clendenin (1972) found that the board becomes less "manageable" as board size increases. Board values and allegiances may become more divided, thereby decreasing group cohesiveness. This lack of cohesion can lead to factions within the board and cause trouble for the CEO. CEO strategies may be more difficult to sell to a factionalized board. In addition, CEO performance may be subject to diverse and conflicting performance criteria. Helmich (1980) argued that changes in board membership and size are responses to changes in the firm's environment. In a study of 54 chemical firms, he found that an increase in board size increased the rate of CEO turnover for unsuccessful firms. Lack of cohesion within the board could lead to lack of consensus, ultimately resulting in the CEO becoming a casualty of the board's internal disagreements. The preceding argument is consistent with Walsh and Seward's (1990) assertion that the board may use the CEO as a scapegoat. This suggests that board size is positively related to CEO dismissal and may be related to board willingness to take action in the face of declining profitability. Specifically, lack of consensus may result in the CEO being used as a scapegoat (Walsh & Seward, 1990) or in a decision to dismiss the CEO due to dissatisfaction with his/her policies. Thus:

Hypothesis 6: As board size increases, the likelihood of board initiated restructuring also increases.

Internal Controls

An important aspect of managing a diversified firm involves the control systems used to evaluate managers, allocate resources, and assess performance. Hitt, Hoskisson & Ireland (1990) discussed the types of control systems available to management in diversified firms. Financial controls refer to annual budgeting procedures (input controls), post performance auditing and tying manager incentives to financial returns (output controls). In contrast, strategic controls describe both the quality of the relationship between corporate and business levels and the depth of understanding at the corporate level of business unit operations. Strategic controls also require more openness and subjectivity in evaluating performance (Gupta, 1987). For instance, within dominant business (or less diversified) firms, top management can evaluate plans, performance, and decisions using strategic criteria. This is possible since the span of management control is lower and because the functional expertise of managers is closely aligned with the markets in which the firm competes (Galbraith & Kazanjian, 1986). Increasing the level of diversification increases the information that management must process (Hill & Hoskisson, 1987) and eventually leads to reliance on financial controls in order to reduce information processing requirements. This shift to financial controls may produce a short-term orientation on the part of top management (Hoskisson, Hitt, & Hill, 1991), which in turn may foster

risk aversion on the part of managers (Hoskisson & Hitt, 1988). Managerial risk aversion can result in lower than expected performance and perhaps loss of competitive ability (Hitt & Hoskisson, 1991; Hitt, Hoskisson, & Harrison, 1991).

The presence of strategic controls in the firm suggests that managers can identify problems and correct them on an ongoing basis as opposed to waiting until performance suffers. Therefore, the use of strategic controls should be positively related to manager initiated restructuring. The presence of strategic controls is of particular value in board monitoring since inside directors have access to this information and should be able to bring this information to the board as a whole. However, reliance on financial criteria suggests the opposite; that management may not foresee the necessity for changes until performance has declined or may lack the ability to initiate change. Jaeger and Baliga (1985) argue that strategic adaptation may involve significant changes in strategies and processes. Since strategic change is risky, the presence of specific performance standards and reliance on financial criteria for evaluation may discourage experimentation with the changes that need to be made. This orientation may lead to inertia and overemphasized concerns for meeting current plans as opposed to adaptation. In this case, large block shareholders of the firm or the board may press for change. In this light, loss of managerial control (emphasis on financial criteria) may be correlated with declining performance, which, in turn, may increase the likelihood of restructuring. Of course, the argument can be made that outsider board members will routinely resort to objective

information due to a lack of expertise. In this case, however, insider members will also be relying on financial criteria, as will top management. When performance declines and financial controls are in use, the board is likely to initiate restructuring to regain strategic control. More specifically, the board may press for CEO replacement due to declining performance or a lack of detailed information (due to lack of strategic control). Thus:

> Hypothesis 7: Emphasis on financial control procedures by top management is positively related to board initiated restructuring.
>
> Hypothesis 8: Emphasis on strategic controls by top management is negatively related to non-board initiated restructuring.

Summary and Conclusions

This chapter has defined a model of corporate restructuring. The roles of firm performance, the market for corporate control, large block shareholders, and the board and top management have been described. Theoretical constructs that may be the principal determinants of who initiates restructuring have been identified and used to generate hypotheses. A summary of hypotheses generated in this section to be used in examining the degree of board involvement in restructuring is presented in Table 1. The next chapter, chapter III, discusses how variables were operationalized and how each hypothesis was tested.

TABLE 1

Theoretical Hypotheses Relevant to Board Versus Non-board Restructuring

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Equity Ownership[1]

Hypothesis 1: Board equity holdings are negatively related to board initiated restructuring.

Hypothesis 2: CEO equity holdings are negatively related to board initiated restructuring.

Board Structure and Board and Managerial Characteristics

Hypothesis 3: There is a positive relationship between CEO tenure and board initiated restructuring.

Hypothesis 4: Heterogeneity in board member tenure is be positively related to board initiated restructuring.

Hypothesis 5: As the ratio of outside board members to total board members increases, the likelihood of board initiated restructuring increases.

Hypothesis 6: As board size increases, the likelihood of board initiated restructuring also increases.

Internal Controls

Hypothesis 7: Emphasis on financial control procedures by top management is positively related to board initiated restructuring.

Hypothesis 8: Emphasis on strategic controls procedures by top management is negatively related to board initiated restructuring.

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[1] Hypothesis 1A is not listed with the board versus non-board hypotheses, it is examined in the board involvement model.

CHAPTER III

METHODOLOGY

The objective of this chapter is to describe how the relationships proposed in chapter II were tested. First, specification and sampling is discussed. This is followed by a discussion of the types of data and methodologies used to test the theory.

Sample

The sample was drawn from the population of firms on Standard and Poor's COMPUSTAT II Annual Data Tape and from the COMPUSTAT Business Segment Tapes. The sampling frame consisted of those firms that have undergone voluntary restructuring from 1986 to 1990. This period was chosen as it represents the time during which many firms initiated restructuring and allowed retrospective questions to be used. Research by Huber and Power (1985) suggests that retrospective questions requesting information pertaining to events more than six years ago may not be valid.

Industry and Data Constraints

Firms classified as restructuring had to be operating within the industrial manufacturing segment (Standard Industry Classification (SIC) code 2000-4000). This restriction was imposed in order to avoid potential problems in measuring internal control attributes. The dimensions used to measure the degree of emphasis on strategic controls may not translate in the same form to service industries (e.g. SIC

>4000). In order to avoid this possible problem, only manufacturing industries were used in the study. Finally, firms had to report sales for all years of the study and be listed on the COMPUSTAT business segment tapes. This constraint was imposed in order to allow calculation of diversification levels which were used as a control variable in testing the hypotheses.

Firm-Specific Criteria

Companies were identified as restructuring if they had divested multiple businesses (more than two divestitures) during the period in question (1986-1990). In order to make sure that firms included in the data set had extensive restructuring programs, a minimum level of divestiture activity was required in order for a firm to qualify. Kusewitt (1985) utilized a 5-percent minimum cutoff for acquiring firms such that all firms must have acquired at least 5-percent of their assets during the period of the study. Hitt, Hoskisson, Ireland, and Harrison (1991) and Simmonds (1990) increased this minimum acquisition level to 10-percent of total assets in order for a firm to be included in the data set. Simmonds' (1990) study utilized a cluster analysis procedure described by Lamont and Anderson (1985) to separate internal diversifiers (internal developers) from external diversifiers (those firms acquiring businesses). By use of clustering algorithms to determine the frequency of acquisitions, the change from internal diversification to external diversification was found to occur at about 8 percent of total assets. Firms with greater than 8 percent of their total assets acquired externally were deemed to be highly diversified

firms pursuing an active external diversification strategy. For the purposes of this dissertation, a minimum of 10 percent of total assets had to be divested between 1986 and 1990. The 10 percent criterion was selected because it is a conservative indicator of restructuring activity, implies that a significant amount of activity took place, and results in a sample of sufficient size for the analyses.

Information concerning divestitures and restructuring were obtained from Mergers and Acquisitions Journal, the Wall Street Journal Index, the popular press (i.e., Fortune, Business Week, etc.) and Compact Disclosure, a CD-ROM data set containing annual reports for all publicly traded firms. Furthermore, firms in the sample sent a signal to the investment community that a strategic reorientation took place. A reorientation or refocusing was identified from articles in the popular business press. Articles on restructuring firms were scanned for key words such as strategic reorientation and asset refocusing. Firms that matched these criteria, engaged in divestitures, and met the 10-percent activity minimum were included in the sample. As previously discussed, a strategic reorientation or refocus was defined as a reorientation of firm strategy to focus on a set of core businesses or a signal that overall corporate strategy had changed significantly. A total of 218 firms were classified as restructuring according to the criteria described above.

Therefore, the sample of restructuring firms represents the identifiable population of firms stratified across the time period in question (1986-1990). Certainly many firms have undergone restructuring activity but were not the subject of articles in the

popular business press. Results of the analyses are, therefore, generalizable to the population of firms not identified as restructuring as well as those firms that did not restructure during the time period of the study.

Archival Data Sources

Financial data for the dissertation were obtained from the Compustat II industrial tape and from the Compustat business segment tape. The latter tape contains segment data as reported by publicly traded firms in their 10-K or annual reports. A segment is considered to be any group of related businesses that comprises at least 10 percent of consolidated revenues, profits, or assets. Information regarding firm financial performance, size, profitability, level of diversification, and industry level variables were obtained from the aforementioned sources.

Information concerning firm governance structures was obtained from 8-K's, proxy statements, and Compact Disclosure. Information regarding board and managerial equity ownership, and regarding board and top management structure and characteristics (e.g. number of insider and outsider board members and organization tenure) was obtained primarily from proxy statements.

Survey Data

The following section is organized into subsections on the following topics: The survey instrument, pilot testing, survey procedure, data availability, survey response bias, reliability of the

survey items, and factor analysis results.

The antecedent conditions leading to the decision to restructure and the changes that occur during the reorientation phase are not well understood. Few studies have addressed the relationship of control systems and the decision to restructure, not withstanding the assertion that restructuring is undertaken to restore control (Hoskisson & Turk, 1990; Ravenscraft & Scherer, 1987). Most studies have examined the wealth effects to shareholders from various activities (e.g. Jain, 1985; Warner et. al., 1988). Therefore, few empirical guidelines have been established to suggest appropriate techniques for measuring these factors.

The use of a survey instrument is appropriate in this case because control system attributes are not detailed in archival sources nor are they available from other secondary sources. Similarly, the degree of pressure exerted by the board to force restructuring has not been examined and requires the use of a survey instrument. Although some motivational factors such as personal equity or the presence of acquisitions in the industry can be obtained from archival sources such as proxy statements or the COMPUSTAT Research tape, they represent factors that may influence board involvement, not a measure of board involvement itself. Therefore, survey instruments are a logical way to measure board involvement and internal governance mechanisms.

Thus, before any formal data collection could begin, it was necessary to undertake several preliminary activities. The activities included a preliminary pilot study and development of a survey instrument. These activities is discussed in the following segments.

Survey instrument. In order to test the stated propositions, data were collected concerning the types of control systems used, changes in control and governance mechanisms during restructuring, and the degree of board involvement in the decision to restructure. These data were collected using a survey instrument sent to all firms in the sampling frame.

Survey items were developed to obtain information concerning the aforementioned control mechanisms and the level of board involvement. The purpose of the survey items was to measure the control systems in use (Daft and Macintosh, 1984) and to act as a cuing mechanism for the respondent. By describing the control systems and motivations for restructuring in a survey item format, the respondents' ability to recall prior and post restructuring control systems will presumably be enhanced (Huber & Power, 1985).

Previous research by Hill, Hitt, and Hoskisson (1992) produced a strategy survey questionnaire which served as a reference for the types of questions generated. Research by Daft and Macintosh (1984), Eisenhardt (1985) and Vancil (1979) also suggested various question development avenues. Scales were developed which address the control systems currently in use, changes made in these controls during the restructuring effort, and the degree of board involvement in the decision to restructure. Each scale used a 7-point Likert type response mode anchored by indicators of perceived importance (e.g. unimportant and very important). Survey items used in the dissertation are presented in the Appendix.

Pilot-testing. Because little research to date has empirically addressed voluntary restructuring, a preliminary study (pre-test) was undertaken to determine the effectiveness, clarity, and relevance of the questionnaire items. A pilot study sample of 50 firms was randomly selected from the population of restructuring firms and contacted by phone to obtain a verbal commitment to participate in the study. Research by O'Keefe and Homer (1987) and Hornik (1982) suggests that response rates can be increased significantly when verbal commitment is obtained before sending the survey instrument. CEOs or top management team members who agreed to participate were mailed a questionnaire and asked to fill it out and return it. The results of this mailing served as an indicator of probable response rates and helped to identify potential problems in survey construction, question design, ordering, etc.

Survey procedure. As above, top management team members were identified from Standard & Poor's Directory of Corporate Affiliations and were contacted to secure their cooperation in completing the survey. During this phase of the study, initial phone contact was made with the chief executive's office. In most cases, the administrative assistant to the CEO either suggested that the survey be sent directly to the office or, more commonly, referred the call to someone on the top management team who could fill out the survey. A second call was then directed to this individual in order to request his/her cooperation. Cases in which the individual targeted to complete the survey was contacted directly were classified as "direct contact." If

the individual could not be contacted directly, a letter was sent out detailing the sequence of events leading to the individual's selection as a potential respondent. If the CEO's office recommended that the survey be forwarded directly to a specific individual, and the individual could not be contacted directly, or if the administrative assistant to the CEO suggested that the letter be sent to the CEO, a letter designated as "indirect contact" was sent.

Surveys were sent out with a letter of introduction based on the classifications mentioned above and a self-addressed stamped envelope for ease of return. When possible, surveys were sent to arrive during the early part of the week. The self-addressed stamped envelope and arrival day were deemed important due to the research of Dillman (1978) found that surveys accompanied by self-addressed stamped envelopes and surveys arriving Monday or Tuesday were more likely to be filled out than those not including stamped envelopes and those arriving on Thursday or Friday. In addition, Dillman's research suggested that the use of follow-up postcards reminding the individual that a survey had been sent and the importance of it as well as the sending of a second letter 2 weeks after the postcards with another survey could significantly increase response rates. The above procedure was rigidly adhered to during the mailing phase of the dissertation research.

Data availability and sample size. Data for the statistical analysis were collected from three different sources: A survey questionnaire, the Compustat data tapes, and proxy statements. Of the 218 firms classified as restructuring, 176 had the necessary Compustat data and

proxy information. Forty-two firms did not file a Proxy statement or filed a proxy statement that lacked the required information. The majority of firms filing proxies without the necessary information were international firms which do not follow the same reporting requirements as firms headquartered in the United States. For example, firms from the United Kingdom file proxy statements but these do not include the equity holdings, salaries, or tenure of the board or top management team.

Survey response rates are reported for the entire sample and for the subset used in the dissertation. The entire sample comprises 768 firms. Of 768 firms sampled, 281 returned the survey in a usable form. The overall response rate for the entire sample is 36.6 percent. Of these 281 returned surveys, 100 out of 152 direct contact surveys were returned for a response rate of 65.8 percent, 118 out of 298 indirect contact surveys were returned (response rate=39.6 percent), and 63 out of 318 letter-only surveys (control firms) were returned with a response rate of 19.8 percent. The aggregate response rate for restructuring firms was 38.9 percent or 85 surveys out of 218. In summary, 176 firms had the necessary financial and governance data (123 non-board initiated and 53 board initiated). This number of firms was reduced to 85 when survey data were used in the analysis. The final breakdown results in 66 non-board initiated and 19 board initiated firms when survey data is used.

Survey response bias. This section examines the test results for types of biases that might effect survey response and the statistical

analyses to follow. In order to test for survey response bias, a dummy variable was included in each logistic and linear regression model analysis. This dummy variable was coded "1" if the firm returned the survey and "0" if the they did not. Individual hypothesis test models were used to test whether the dummy variable explained any variance. In all cases, the dummy variable was found to be insignificant, indicating that no survey response bias exists relative to the independent variables and control variables used in the analyses. The next section relates to inter-rater reliability and factor analysis results.

One possible explanation for the lack of response could be that restructuring firms are on average under performing the market as indicated by market measures of performance or the industry in which they compete in the case of relative firm performance. This explanation seems very reasonable in that firms facing financial crises or radical change may not wish to advertise or admit the fact that they were in trouble. It is interesting to note that CEO dismissal did not affect response rates. This fact would suggest that firms downplay such events and proceed ahead as if nothing had happened.

Two other possibilities affecting overall response rates would be the time it takes to complete the survey versus the top managers; opportunity cost of time and corporate policies against taking part in survey research. Thirty-four telephone declines and several letters indicated the most common reasons for not completing the survey were company policies against participating in survey research or that the

individual was too busy to fill out the survey. Another explanation could relate to the sensitive nature of some of the questions. Despite the assurance of confidentiality, some respondents did not complete the survey because the information was proprietary to the firm. This concern was expressed by several of the respondents and may be reflected in the company policies against participating in this type of research. In fact, company policies regarding survey research may be more prevalent in restructuring firms due to the radical degree of change going within the firm. Despite this problem, the response rate for restructuring firms was still very acceptable and points to the benefits of pre-contacting survey respondents before sending a survey instrument. Babbie (1974, p. 165) indicates "a demonstrated lack of response bias is far more important than a response rate." The lack of a response bias within the restructuring firm category suggests that this is not a cause for concern in this study.

Survey reliability and factor analysis. Prior to using the survey responses, the degree of inter-rater reliability was assessed. In order to assess inter-rater reliability, duplicate surveys were sent to a randomly sampled group of firms which represent the population of firms responding to the survey. A total of 108 firms were randomly sampled from the 281 firms which returned the initial survey. As described above, the potential respondent or that person's administrative assistant was contacted by phone prior to sending the survey. Of the 108 firms contacted, 2 declined to fill out a second survey, leaving 106 potential respondents. The overall response rate

was 48.1 percent or 51 out of 106.

For this dissertation, two different techniques were used to assess reliability. The first was simply to calculate the Pearson correlation between the two responses. This was done on the three one-item survey questions, degree of board involvement, change in the use of strategic controls and change in the use of financial controls. The correlation between the two respondents on board involvement was significant (r=.66, p < .0001). The correlation between rater responses was also significant in the case of change in the use of strategic controls (r=.81, p < .0001). Change in the use of financial controls was also significantly correlated between survey respondents (r=.72, p < .0001). In addition to determining the correlation between raters, a modification of the interobserver agreement percentage test was performed (Mitchell, 1979). Table 2 presents the results of this frequency analysis. Percentages of direct matches were found to range between 39.2 percent and 43.1 percent. The precentage of direct matches between respondents is not particularly good. Mitchell (1979) argues that agreement percentages less than 50 percent may suggest a lack of reliability. The primary limitation of the percentage agreement test is that it is based on an all or nothing criteria (either responses match or they don't). Pearson correlations are based on how closely the responses correlate, not on an exact match. The important finding was that most of the responses in the percentage agreement test are within one response point of complete agreement.

A perusal of the reliability literature clearly emphasizes the necessity of doing reliability checks and the ramifications of poor

reliability but does not offer any prescriptions as to a minimum acceptable correlation. Carmines and Zeller (1979) and Nunnally (1978) suggest the use of a .80 reliability estimate as a minimum in the case of widely used scales. Exploratory items such as those used in this study might not be expected to attain these levels. Nunnally (1964) suggests that a correlation of .70 is adequate for exploratory scales, but he removed this statement in his more recent book. More specifically, these authors are referring to reliability tests such as split-halves, retest, or internal consistency (Cronbach's alpha) and not to correlation analysis. For the purposes of this study it was assumed that a Pearson correlation was not significantly different from some of the less powerful reliability estimates such as retest or split-halves. The basis for this assertion is that all reliability estimates including internal consistency are based on inter-item correlations between responses very similar to a Pearson correlation.

Principle components analysis was utilized to generate strategic and financial control factors. A Scree Test (Cattell & Vogelmann, 1980) was performed during the Principle Components analysis. Results of the Scree test indicated that three factors should be kept. A minimum eigenvalue of 1 was required before a factor could be accepted (Kim & Mueller, 1978). The unrotated factors extracted by the Principle Components procedure all had eigenvalues (sum of the squared factor loadings) greater than 1.0. These loadings indicate the relative importance of each factor in accounting for the variance associated with the set of variables being analyzed. A VARIMAX rotation was employed to simplify the factor matrix (Gorsuch, 1983).

TABLE 2

Results of the Frequency Analysis of Inter-rater Reliability

Difference in Response[1]	Board Involvement	Change in Strategic Control	Change in Financial Control
-6			
-5	1		
-4			
-3	3		
-2	6		3
-1	6	14	12
0	20	22	21
1	7	14	11
2	5	1	3
3	3		1
4			
5			
6			
N	51	51	51
Agreement Percentage	39.2	43.1	41.1
Percent within one response point	64.7	98.0	86.3

[1] $(response_1 - response_2)$

Results of the principle components analysis with a VARIMAX rotation are presented in Table 3. Factor 1, the financial control factor had 4 items loading greater than .5. These items were objective criteria (e.g., ROI), use of formal reports, return measures such as ROA, and cash flow. The lowest factor loading was .638. The second factor, factor 2, was labeled strategic controls, as face-to-face meetings, informal meetings, and subjective evaluative criteria all loaded at or above .623. The third factor identified relates to long-term financial controls or perhaps long-term growth. Two items loaded on this factor, namely, market share and revenue growth. These two items had factor loadings of .811 and .826, respectively. One item from the survey, comparative stock price, failed to load on any of the three factors.

In order to test the reliability of the survey items constituting each factor, the inter-item correlations were used to generate a Cronbach's alpha reliability estimate (Carmines & Zeller, 1979). Results of this test are also presented in Table 3. The alpha values resulting from the reliability estimate were .700 for the financial control factor, .741 for the strategic control factor, and .670 for the long-term financial control factor. Inter-rater reliability estimates for the three factors were assessed by examining the correlation between the sum of item responses on each scale. The financial control factor (factor 1) correlation was significant (r=.79, p < .0001), as were the strategic control factor (r=.81, p < .0001) and the long-term financial growth factor (r=.75, p < .0001).

The Pearson correlation of r=.81 between survey respondents on

TABLE 3

Results of the Principle Components Factor Analysis on Survey Items

	VARIMAX Rotation Rotated Factor Pattern		
	Factor 1[1]	Factor 2	Factor 3
Factor Name Variable	Financial Controls	Strategic Controls	Long-term Financial Controls
Face to Face Meetings	.308	.793	.107
Informal Meetings	.121	.860	.159
Subjective Criteria	.141	.623	.257
Objective Criteria	.732	.387	.059
Formal Reports	.638	-.028	.305
Return Measures (e.g. ROI)	.692	.317	-.225
Cash Flow	.738	.134	.159
Market Share	.121	.071	.811
Revenue Growth	.051	.156	.826
Comparative Stock Price	.037	.124	.290
Eigenvalues	2.115	2.067	1.700
Cronbach Alpha	.700	.741	.670
Inter-rater Reliability Correlation	.79***	.81***	.75***

N=236, *** p < .001, N=51 for the inter-rater reliability check, Pearson correlations are reported for each scale.

[1] Underlining denotes the factor upon which survey item loaded.

change in the use of strategic controls indicates sufficient reliability. The correlation for change in financial control use was slightly lower (r=.72) than the correlation between respondents on change in strategic controls. Results indicated that three factors were significant and that the financial control items loaded on two separate factors; a short term financial control factor (factor 1) and longer-term financial controls (factor 3). Since this item requested information on the change in the use of financial controls, respondents may have had problems because some form of these controls (either long- or short-term) had always been in use. Therefore, responses may reflect the fact that financial controls were defined in the survey and may have influenced survey respondents. Another very plausible alternative is that financial controls are to some extent always present. It is difficult to imagine a firm not using financial controls, though it is possible for a firm not to use strategic controls. The results of the t-test point to this problem, in that there is virtually no difference in response means by category.

The test of inter-rater reliability for board involvement was also lower than was hoped (r=.66, $p < .0001$). As in the case of change in financial controls, this level of reliability may be suspect. However, Shrout and Fleiss (1979) argue that one of the guidelines for choosing the appropriate form of intraclass correlations is to determine whether differences in the judges' mean ratings are relevant to the reliability of interest. In the case of restructuring firms, use of firms not included in the restructuring firm subset may not be appropriate. For example, asking respondents to respond to what degree the board was

involved in the decision to restructure when the firm hasn't restructured (control firms) or hasn't suffered declines in performance may not result in comparable responses. In theory, responses from the restructuring firms may be measuring a different construct than responses from non-restructuring firms. In addition, crises or major changes such as restructuring events may lead to the generation of stories. etc. which are transmitted throughout the organization. The decision to dismiss the CEO apart from the unambiguous nature of staying or leaving would be circulated. This information would be readily available to any top management team member regardless of when they joined the firm. A post-hoc reliability check was computed using only those firms within the restructuring category. The resulting correlation for the 19 firms for which these data were available was r=.88, p < .0001. This implies that the other 32 firms represent most of the variance in response. This finding suggests that a reliability estimate based on the entire sample may not be valid. Firms in which no restructuring has occurred (control firms) and acquiring firms which may not be performing poorly may not have experienced any form of board involvement or pressure. In these cases, responses concerning board involvement may not be valid.

Measures

Pre-restructuring time frame. In this dissertation, it is argued that restructuring initiated by board or non-board action will occur prior to capital market intervention. The problem is that no empirical studies have examined the time period between occurrence of lower than

expected performance and action by the market for corporate control. In fact, Walsh and Kosnik (1991) suggest that raiders went after some firms that were more profitable than their competitors. In theory, firm performance probably assumes a moderating role such that very poor performance will decrease the time lag leading to market for corporate control intervention. Some set of discrete events or a nontrivial inefficiency threshold must be crossed before a tender offer premium will be made (Williamson, 1970). Smiley (1976) examined 95 tender offers between 1956 and 1970 and concluded that managers need not worry about the threat of a tender offer until the value of a firm's shares has dropped by approximately 13 percent. Jain (1985) tracked business unit divestitures for several years and found that firm performance began to suffer approximately a year prior to divestiture and resulted in negative excess returns of -10.8 percent from day -360 to day -11 using standard event study methodology. These findings would suggest that the time between lower than expected performance and manager or board action may not be very long. Anecdotal evidence also suggests that the time period is relatively short; for example, Kroger grocery stores restructured in 1987 presumably in response to a tender offer for Safeway (a competitor). One year elapsed between the tender offer announcement for Safeway and Kroger's announcement of restructuring.

Obviously, the preceding statements do not offer a justifiable period to use, rather, they merely suggest rough boundaries. This study will use the two years immediately preceding the announcement of restructuring. For example, if the firm announced a restructuring in 1986 the two years prior to 1986 would be used (i.e. 1984 and 1985).

The rationale for choosing the two years prior to the onset of restructuring is that the governance devices in operation and existing conditions immediately prior to the initiation of restructuring will provide a more accurate estimate of factors leading to the decision to restructure. In fact, governance structures such as board composition, equity holdings, and internal control systems may not fluctuate significantly year to year. However, given that changes may occur, it was felt that the most current governance information would be most appropriate. One could argue that board composition may change prior to CEO dismissal (i.e. an increase in outsiders versus insiders). If some insiders resign or are replaced by outsiders in the year prior to CEO dismissal, the most accurate information pertaining to events leading up to CEO dismissal would come from the most recent year (the year in which outside representation increased). Firm performance data as well as accounting data used as independent and control variables tends to fluctuate on a yearly basis because of accounting procedures. Therefore, accounting data will be averaged over the two-year period immediately preceding restructuring.

Dependent variables. The dependent variable to be used in the first part of the dissertation was a categorical dependent variable, namely, who initiated the restructuring effort. In this case, restructuring initiated by the board was coded as "1" while non-board initiated restructuring was coded as "0." The objective measure of board initiated restructuring is based on determining those instances in which the CEO was replaced prior to or during restructuring.

Determination of CEO dismissal was obtained from a variety of sources (e.g. Business Week, proxy statements, Compact Disclosure, Wall Street Journal Index). Articles in the popular business were also examined for signals of the process that took place prior to restructuring.

The context of CEO replacement has been examined by Vancil (1987) and more recently by Cannella, Lubatkin, and Kapouch (1991). Results of these studies indicate that replacement of the CEO can be attributed to one of four processes: 1) relay, 2) retirement, 3) death, and 4) dismissal. A relay implies a shifting of power in which the heir apparent (usually the president and/or chief operating officer (COO)) takes the title CEO, while the outgoing CEO becomes chairman of the board. Clearly, this type of transition may not represent managerial dismissal, rather it would suggest a minimal disruption of ongoing strategies. Likewise CEO retirement or death cannot be categorized as dismissal. Managerial dismissal was therefore operationalized as a change in CEO in which the CEO has no continuing ties with the firm, did not die, and did not retire. Of the 218 firms identified as restructuring, 146 were classified as having non-board restructuring while 72 were classified as having board initiated restructuring.

The second part of the dissertation research examined the degree of board involvement in the decision to restructure. This analysis involves Hypothesis 1A through 8. The board involvement measure is a survey item is based on a 7-point Likert type response mode anchored by indicators of their perceived importance (e.g. unimportant and very important). High scores represent significant board pressure (very important) while low scores indicate less board involvement or non-

board initiated restructuring (unimportant). The validity of this survey item can be examined by comparing the correlation between board involvement scores on the survey with the categorical dependent variable used in the first part of the analysis. A high correlation would suggest that these items are measuring similar effects.

Independent variables. Variables obtained from the COMPUSTAT tapes were averaged for the two years prior to the onset on restructuring while objective data from sources such as proxy statements were collected one year prior to restructuring.

Both board and managerial equity were obtained from Proxy statements. Equity interests for managers were calculated as the ratio of manager equity holdings to total common shares outstanding. There are several other commonly used measures of ownership such as the market value of CEO equity and the ratio of market value of CEO equity (in dollars) to total compensation (Walkling & Long, 1984; Kosnik, 1987, 1990). This particular operationalization was selected because it directly reflects CEO equity as a percent of total firm shares. Board member equity holdings were operationalized as board equity divided by common shares outstanding minus the equity holdings of the CEO (if the CEO was on the board).

Board structure and board and managerial characteristic variables include the composition of the board, the size of the board, and managerial and board tenure with the organization. Board composition was operationalized as the ratio of outside members divided by total board size (Morck, Schleifer, & Vishny, 1989; Mizruchi, 1983). Outside

members were defined as individuals who were not employees of the firm or any subsidiaries of the firm, and had never been employed by the firm in the past. Similarly, board size represents the sum of the number of insiders and outsiders (Helmich, 1980). Manager and board tenure represents the number of years in which the individual has been a member of the board or employed by the firm in his/her present position (Wagner, Pfeffer, & O'Reilly, 1984; Fredrickson, Hambrick, & Baumrin, 1988). The calculation of a measure of board tenure presents a problem. Both Pfeffer (1983) and Priem (1990) suggest that the frequency distribution of the characteristic across the population, reflecting demographic homogeneity or heterogeneity, may hold greater promise than simple averages of the characteristics. Interpersonal interactions among group members may induce changes in their individual preferences and behavior, and thus influence the performance of decision-making groups. Pfeffer (1983) and Priem (1990) argued that average measures of individual members' attributes fail to capture the compositional effects that induce these interpersonal interactions. Therefore, variance in board tenure was operationalized as the coefficient of variation, i.e., standard deviation divided by mean board tenure (Allison, 1978).

Internal controls used by management (and the board) to process external and internal information were measured using the survey items. Reliance on specific types of control systems was assessed using a 7-point Likert scale anchored by the labels very important and unimportant. Control systems currently in use were obtained by use of the survey items which describe the different types of control systems

and ask the individual to rate the current importance. Information regarding controls used in the pre-restructuring phase was assessed by asking questions concerned with changes in control systems during the post-restructuring phase. As previously discussed, a subsample of firms were sent duplicate questionnaires to determine inter-rater reliability.

Control variables. Research has suggested that the degree of diversification affects firm performance (Hoskisson & Johnson, 1992). Therefore, the level of diversification served as a control variable for each analysis. The entropy measure of diversification (Jacquemin & Berry, 1979; Palepu, 1985; Baysinger & Hoskisson, 1989; Hoskisson, Hitt, Johnson & Moesel, 1991) is commonly used to calculate the level of diversification and classify industrial organizations into strategy types. The entropy measure (DT) or total level of diversification is calculated as follows:

$$\text{Entropy Measure (DT)} = \sum P_j \ln (1/P_j)$$

where P is defined as the sales attributed to business segment j and $\ln(1/P_j)$ is the weight for each segment j (this is the logarithm of the inverse of its sales). This measure, therefore, takes into account the number of segments in which a firm operates and the relative importance of each segment in firm sales (Palepu, 1985). The entropy measure of diversification was employed to create a continuous diversification measure from the COMPUSTAT business segment tapes.

Previous studies of the effects of diversification on firm performance have found differences between industries (Hitt, Hoskisson,

Ireland, & Harrison, 1991; Hoskisson & Johnson, 1989). While firm performance can be measured in many ways, I operationalized firm performance using both accounting-based performance (ROA) and a market measure, Jensen's alpha. Both the finance literature and economics literature suggest that non-market indicators of performance may not be entirely adequate for measuring firm performance given the peculiarities of accounting reporting practices (Brealey & Myers, 1988; Fisher & McGowan, 1983). Therefore, a market measure of firm performance was used to examine the relationship between firm performance and restructuring. Furthermore, one could argue that outside board members are more likely to evaluate firm performance based on market measures whereas managers tend to rely more heavily on accounting based measures of performance. By utilizing both measures it was possible to examine this effect and allow comparison between the strength of the performance restructuring relationship using market and accounting based measures. Research by Morck, Schleifer, & Vishny (1989), Meindl, Ehrlich, & Dukerich (1985) and Cyert & March (1963) suggests that board members compare firm performance relative to average industry performance when evaluating managerial decisions and performance. Therefore, average industry performance was used as a control variable in all analyses. The accounting-based measure of performance was measured using average return on assets (ROA) minus industry average ROA for the two years prior to the onset of restructuring. Market-based performance was measured using Jensen's alpha. This measure is commonly used to assess firm performance relative to the market (Brown & Warner, 1980; Jobson & Korkie, 1981;

Alexander & Francis, 1986). Daily stock market returns, market index returns, and the risk-free rates were obtained from the CRSP tapes for the year immediately preceding restructuring. Jensen's alpha was calculated using a market model specified below:

$$(R_i - RFR) = a + B(R_m - RFR)$$

where, R_i = firm returns, R_m = market returns (CRSP value-weighted index with distributions), RFR = the risk free rate, B = nondiversifiable, systematic firm risk, and a = the intercept or Jensen's alpha.

The problem in using daily or quarterly stock price is that the announcement date is difficult to ascertain. Firms are not required by the Securities Exchange Commission (SEC) to file any particular forms to announce restructuring. Although tender offers and individual stock accumulations over 5 percent require 14-D and 13-D filings, respectively, neither is appropriate to signal voluntary restructuring. Given these sources, daily stock returns collected for the year preceding restructuring may represent the most appropriate time interval as opposed to identifying the exact announcement date of restructuring.

Firm size was also used as a control variable. This is consistent with previous research that has shown that the log of total firm assets (proxy for firm size) can influence diversification (Bettis, 1981; Montgomery, 1982), the amount of risk-taking through R&D expenditures (Rothwell, 1984; Baysinger & Hoskisson, 1989), and the types of internal controls used by top management to manage information flow

such as financial and bureaucratic controls. Hitt, Hoskisson, and Ireland (1990) argue that an increase in firm size results in an increase in managers' span of control and increased use of bureaucratic controls (formalized reporting relationships) to manage the larger hierarchy. Structural inertia (Hannan & Freeman, 1984) may evolve through the use of bureaucratic control procedures, thereby effecting the ability of the firm to initiate strategic change (Kiesler & Sproull, 1982; Ginsberg, 1988).

Restructuring categories control variable. Restructuring firms were further partitioned into categories reflecting the type of restructuring activity. Despite the large number of divestitures involved in restructuring, many firms have made limited acquisitions during or post restructuring and some have made many acquisitions during the restructuring process. It was therefore deemed important to control for different levels of acquisition during the restructuring process since the ability to acquire other firms while refocusing implies a somewhat better financial situation. Firms were classified as downscoping firms if they divested businesses worth at least 10 percent of their total assets and acquired less than 3 percent of their total assets during the time period of the study. Firms that met the above criteria for divestiture and acquired between 3 and 10 percent of their total value between 1986 and 1990 were classified as downscoping with some acquisition activity. Lastly, firms that both divested at least 10 percent of their total value and acquired businesses worth at least 10 percent of their total assets between 1986 and 1990 were

classified as pursuing a mixed strategy. It should be noted, however, that most of these mixed firms divested business units at the outset of the restructuring process and began acquiring businesses after divestitures were underway or completed. Of the 218 firms included in the data set, 89 were classified as downscoping, 32 as downscoping with some acquisition activity, and 97 firms as pursuing a mixed strategy.

The restructuring effect was tested using dummy variables. Dummy variables were created such that each pair of categories could be tested. For example, downscoping firms were coded as "0" while firms pursuing a mixed strategy were coded as "1." Similarly, downscoping firms were coded as "0" while those downscoping with some acquisitions were coded as "1." These three dummy variables were entered into each logistic and linear regression model to determine whether restructuring category explains any variance in addition to the independent and control variables.

The results of this analysis indicate that there is a restructuring category effect. The dummy variable comparing mixed strategies and downscoping or downscoping with some acquisitions were both significant. However, the comparison between downscoping and downscoping and some acquisitions was not significant in any model. Since downscoping firms and downscoping with some acquisitions were not significantly different, these two categories were combined. A t-test was then run in order to determine which variables were affected by the two remaining restructuring categories. Results of the t-test indicate that the level of diversification, relative firm performance, and market performance all differed significantly between the restructuring

categories. All three variables were significantly higher in firms pursuing a mixed strategy. Table 4 presents the results of the t-tests. In order to control for this effect, a dummy variable termed restructuring category was included in all models used to test hypotheses.

Industry control. After each firm was assigned to one of the three restructuring categories, the sample was examined to determine how widespread the restructuring phenomenon is and whether there appears to be a change in the number of firms initiating restructuring. Table 5 presents the number of restructuring firms in the study by Standard Industry Classification (SIC) code. The SIC codes were used at the two-digit level to aid in observing trends and to place firms in a category general enough to examine industry trends. Results of this frequency analysis suggest that restructuring is a widespread phenomenon and is not limited to any set of industry categories. Several industries appear to be restructuring prone, namely, Food and Allied Products n=12, Chemicals and Allied Products N=38, Machinery, except Electrical n=33, Electrical and Electronic Machinery n=26, Transportation Equipment n=15, and Measuring Instruments n=21. Because of the large number of firms restructuring in these six industries, dummy variables were entered into the regression models to determine if an industry effect is present. These dummy variables were specified such that a given industry was coded "1" while all others were coded as "0." Results of this test indicate that the dummy variable examining the chemicals and allied products industry was significant in the

TABLE 4

Results of the Restructuring Category Effects Test

Restructuring Category	Downscoping			Mixed Strategy			
Variable	N	Mean	STD	N	Mean	STD	T-Statistic
Level of Diversification	97	1.27	0.58	79	1.44	0.56	-2.323*
Relative Firm Performance (ROA)	97	-1.36	6.58	79	1.33	5.21	-2.961**
Relative Firm[1] Performance (ROE)	97	-7.98	14.75	79	-2.08	13.21	-2.767**
Market Performance[2] (Jensen's Alpha)	97	-5.89	12.17	79	-0.67	10.72	-2.931**

*** p<.001, ** p<.01, * p<.05.

(1) Relative ROE was also used as a further check of the restructuring category effect.

(2) Jensen's Alpha units $x10^{-4}$.

TABLE 5

Industry Profile for Restructuring Firms

2-Digit SIC	2-Digit Category Name	Number of Restructuring Firms
1300	Oil and Gas Extraction	5
1400	Mining, Quarry Non-metal Minerals	1
1500	Building Construction	1
1600	Construction-Not Building Construction	3
2000	Food and Allied Products	12
2100	Tobacco Products	1
2200	Textile Mill Products	5
2600	Paper and Allied Products	6
2700	Printing and Publishing	2
2800	Chemicals and Allied Products	38
2900	Petroleum Refining	7
3000	Rubber and Plastic Products	4
3100	Leather and Leather Products	1
3200	Stone, Clay, Glass and Concrete Products	5
3300	Primary Metal Industries	7
3400	Fabricated Metal Products	9
3500	Machinery, Except Electrical	33
3600	Electrical and Electronic Machinery, Equipment and Supplies	26
3700	Transportation Equipment	15
3800	Measuring Instruments, Photographic, Medical, and Optical Goods	21
3900	Miscellaneous Manufacturing	1
4800	Communications	2
5100	Wholesale Trade (Non-durable)	1
6100	Nondepository Credit Institutions	2
7300	Business Services	6
7900	Amusement, Except Motion Pictures	1
8000	Health Services	1
8200	Educational Services	1
8700	Miscellaneous Services	1
	Total Number of Firms	218

linear regression models. None of the other dummy variables were significant in any of the logistic or linear regression models. In order to control for this effect, a dummy variable termed "chemical industry" was included in each linear regression analysis.

Restructuring firms were examined to determine if the frequency of restructuring is affected by time. The year in which firms initiated restructuring was determined during the data collection phase and was used to examine this issue. The subsequent frequency analysis indicates that the number of firms initiating restructuring in a given year is relatively constant. In 1986, 63 firms initiated restructuring, 1987 61 firms, 1988 59 firms, 1989 24 firms, and 1990 7 firms. A summary of all variables used in the dissertation as well as their operationalizations is presented in Table 6.

Statistical Analyses

There is a substantial empirical literature exploring differences between firms that have been acquired (taken over) and those which have not. In general, these studies have divided firms into two groups and analyzed the differences in the two groups using binary dependent variable techniques such as discriminant analysis or logistic regression. It is assumed that these firms fall into a single category that is distinguishable from firms in the other group. As argued previously, restructuring may be motivated by quite different features suggesting that more than a single category of restructuring firms should be analyzed (e.g. board initiated and non-board initiated). The use of logistic regression allows the use of

TABLE 6

Overview of Measures and Data Collection Sources

Variable	Measures	Data Type	Data Source	Source Type
Board vs. Non-board	CEO Dismissal (0,1)	Primary	Business Press	Archival
Board Involvement	7-Point Likert Scale	Primary	Top Management	Survey
Equity Ownership	Total Equity / Common Shares Outstanding	Primary	Proxy Statement	Archival
Tenure Heterogeneity	Tenure Variance	Primary	Proxy Statement	Archival
CEO Tenure	Years in Position	Primary	Proxy Statement	Archival
Board Structure & Size	Outsiders, Insiders, & Total Members	Primary	Proxy Statement	Archival
Internal Controls	7-Point Likert Scale	Primary	Top Management	Survey
Relative Firm Performance	Firm ROA - Industry ROA	Control	COMPUSTAT Annual Tapes	Archival
Market Performance	Jensen's Alpha	Control	CRSP Tapes	Archival
Diversification	Entropy Measure	Control	COMPUSTAT Segment Tape	Archival
Firm Size	Log(Total Assets)	Control	COMPUSTAT Annual Tapes	Archival
Restructuring Category	Dummy Variable (0,1)	Control	Compact Disclosure	Archival
Chemical Industry	Dummy Variable (0,1)	Control	COMPUSTAT Annual Tapes	Archival

dichotomous (categorical) dependent variables (Aldrich & Nelson, 1984; Schmidt & Strauss, 1975). For these analyses, a logistic function representing the general model defined as :

$$\log[P/1-P] = a + B_1X_1 + \ldots + B_kX_k,$$

where,

P is the probability of board initiated restructuring,

X_k's are covariates or explanatory variables,

B_k's represent the slope coefficients (estimated parameters), and

"a" represents the constant.

The level of diversification, firm size, average industry performance, restructuring category, and the chemical industry control dummy variable were included as controls. Hypotheses would be supported if beta weights (chi-square statistics) were significantly greater than zero in the models tested.

The logit model was deemed superior to discriminant analysis (DA) because of the assumptions DA makes. DA assumes multivariate normality for the independent or explanatory variables. A categorical "dummy" variable such as the presence of acquisitions precludes this possibility. Eisenbeis (1977) states that "violations of the normality assumptions may bias the tests of significance and estimated error rates" for DA. In addition, estimated probabilities obtained using DA can violate the meaningful 0-1 range (Press & Wilson, 1978).

In cases where the dependent variable could be considered continuous or discreet (e.g. survey responses), a general linear model procedure was used to examine the hypotheses. Specifically, the level

of board involvement in the decision to restructure, lent itself to testing through the use of simple linear regression because the dependent variable would be a 7-point discreet-continuous variable which is normally distributed. In this case, independent and control variables were entered into the model as before. Hypotheses would be supported if the standardized regression coefficients (t-statistics) were significant in the models tested. Hypotheses 1-8 will be tested using both a logistic procedure in the case of objective evidence of board initiated restructuring and a simple linear regression procedure in the case of subjective evidence of board involvement. A summary of the statistical procedures as well as the models tested are presented in Table 7.

In addition to the individual hypothesis tests, an overall model (see Figure 2) was also examined. This model incorporated the individually testable hypotheses that were significant in the individual hypothesis tests into a framework in order to examine the relative importance of the independent variables compared to each other in predicting who initiates restructuring. The model proposed in chapter II of this dissertation is presented in Table 8. Models pertaining to board involvement use the same variables as presented in Tables 7 and 8 except that Hypothesis 1A replaced Hypothesis 1 and board involvement replaced board versus non-board restructuring.

TABLE 7

Statistical Procedures and Models used to test Hypotheses.

Hypothesis[1] (Statistical Procedure)	Model[2,4]
Hypothesis 1: (Logistic regression)	RSI = Board equity, Relative ROA, Diversification level, Firm size, Restructuring category, Chemical industry.
Hypothesis 2: (Logistic regression)	RSI = Managerial equity, Relative ROA, Diversification level, Firm size, Restructuring category, Chemical industry.
Hypothesis 3: (Logistic regression)	RSI = CEO tenure, Relative ROA, Diversification level, Firm size, Restructuring category, Chemical industry.
Hypothesis 4: (Logistic regression)	RSI = Board tenure variance, Relative ROA, Diversification level, Firm size, Restructuring category, Chemical industry.
Hypothesis 5: (Logistic regression)	RSI = Board composition, Relative ROA, Diversification level, Firm size, Restructuring category, Chemical industry.
Hypothesis 6: (Logistic regression)	RSI = Board size, Relative ROA, Diversification level, Firm size, Restructuring category, Chemical industry.
Hypothesis 7: (Logistic regression)	RSI = Financial controls, Relative ROA, Diversification level, Firm size, Restructuring category, Chemical industry.
Hypothesis 8: (Logistic regression)	RSI = Strategic controls, Relative ROA, Diversification level, Firm size, Restructuring category, Chemical industry.

(1) Each hypothesis was tested individually before being combined into the proposed model from Chapter II.
(2) Independent variables are underlined.
(3) RSI = Dichotomous variable indicating who initiated restructuring.
(4) Hypotheses 1-8 as well as the main model were also tested using linear regression and the continuous variable from the survey (board involvement).
(5) A market measure of performance (Jensen's alpha) was also tested.

TABLE 8

Statistical Procedures and Variables used to Test the Main Model.

Hypothesis[1] (Statistical Procedure)	Model[2]
Main Model[4]: (Logistic regression)	RSI = Board equity, Managerial equity, CEO tenure, Board tenure variance, Board composition, Board size, Financial controls, Strategic controls, Relative ROA, Diversification level, Firm size, Restructuring category, Chemical industry.

(1) Each hypothesis was tested individually before being combined into the proposed model from Chapter II.
(2) Independent variables are underlined.
(3) RSI = Dichotomous variable indicating who initiated restructuring.
(4) In addition to the dichotomous dependent variable (board vs. non-board), the main model was also tested using linear regression and the continuous variable from the survey (board involvement). A market measure of performance (Jensen's alpha) was also evaluated.

CHAPTER IV

RESULTS

This chapter presents the results of the hypotheses generated in Chapter II and operationalized in Chapter III. The chapter is organized into subsections pertaining to the following topics: Correlational analysis, logistic regression analysis using the presence or absence of CEO dismissal (objective measure) and linear regression analyses using board involvement (subjective measure).

Correlational Analysis

The means, standard deviations, and correlations for the dependent, independent, and control variables are presented in Table 9. Since this research is largely exploratory, significance levels of .10 are reported as being marginally significant. In general, the correlation matrix indicates that intercorrelations between variables of interest were sufficiently low, thereby minimizing the problem of unstable coefficients (because of collinearity) in the logistic and linear regression procedures. The two exceptions to the above statement are discussed below.

The first and most important case of multicollinearity involves the correlation between CEO equity and board equity (r=.50, p < .001). Correlations at this level and above become problematic when both independent variables are included in the same model. Subsequent analysis using logistic regression and linear regression indicated that one variable was capturing the shared variance, leaving the second

TABLE 9

Means, Standard Deviations, and Intercorrelations for Variables used in the Study.

Variables	Mean	Std.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Restructuring Initiator	0.30	0.46																
2. Board[1] Involvement	3.65	2.15	.48*															
3. Percent of CEO Ownership	0.05	0.11	-.23*	-.29*														
4. Market Value (CEO Ownership)	18.21	79.29	-.25*	-.26*	.29*													
5. Percent of Board Ownership	0.05	0.09	-.14*	.14	.50*	.23*												
6. CEO Tenure	8.27	7.27	-.12+	-.24+	.10	.23*	.09											
7. Board Tenure Variance	0.78	0.25	.27*	.11	-.11	-.06	-.10	.13										
8. Board Composition	0.69	0.15	.49*	.20+	-.27*	-.17*	-.19*	-.15*	.21*									
9. Board Size	11.32	3.79	.18*	.08	-.37*	-.09	-.30*	.06	.30*	.09								
10. Financial[1] Control	2.82	1.30	.02	-.05	.08	.14	.01	-.16	.05	-.03	.06							
11. Strategic[1] Control	2.77	1.15	-.30*	-.19+	.08	.14	.20+	.17	-.03	-.05	-.11	.03						
12. Firm Size	6.29	1.61	.23*	-.02	-.37*	.13+	-.38*	-.07	.09	.17*	.68*	.21+	-.07					
13. Relative Firm Performance	-0.15	6.14	-.14*	-.12	.01	.09	-.01	-.04	.09	-.11	.14+	.05	.19+	.12				
14. Market Performance	-3.52	11.80	-.20*	-.30*	.01	.11	.02	-.07	-.02	-.18*	.16*	.23+	.15	.14	.25*			
15. Level of Diversification	1.35	0.58	.22*	.10	-.16*	.06	-.17*	.01	.25*	.24*	.51*	.13	-.02	.51*	-.19*	-.22*		
16. Restructuring Category	0.45	0.50	-.11	-.18	-.12	-.07	-.11	-.12	.09	-.07	.10	.10	.03	.04	.20*	.23*	.17*	
17. Chemical Industry	0.19	0.40	-.12	-.22+	.18*	.16*	-.12	-.03	.04	.03	.28*	.23+	.19+	.17*	.10	.26*	.23*	.14+

+ $p<.10$, *$p<.05$. Spearman rank correlations are reported where ordinal data is used.

[1] N=85. All other correlations, N=176.

variable insignificant in the main models. In order to compensate for this problem, an alternate measure of CEO equity was chosen. Market value of the CEO's equity holdings was used as a substitute. This variable was selected because it still represents the incentive for the CEO to be vigilant, it's correlation with board equity does not indicate multicollinearity is a problem (r=.23, p < .01), it is positively and significantly correlated with CEO equity (r=.29, p < .001), and it is negatively and significantly correlated with board initiated restructuring (r=-.25, p < .001) and board involvement (r=-.26, p < .05). Further examination of this substitution is provided in the logistic and linear regression analyses.

The second case of multicollinearity involves the correlation between board size and the level of diversification (r=.51, p < .001) and firm size (r=.68, p < .001). In addition, firm size and the level of diversification are positively and significantly correlated (r=.51, p < .001). Firm size and level of diversification were not removed from the model because they represent control variables which were included for theoretical reasons. Board size was tested using the aforementioned controls despite the multicollinearity problem.

Regression Analysis

The following section presents the results of the logistic and linear regression analyses. Logistic regression analysis was used to determine whether the hypotheses generated in Chapter II explain a significant level of variance in the categorical dependent variable, "restructuring initiator." Linear regression analysis was used to

determine whether the hypotheses generated in Chapter II explain a significant level of variance in the continuous dependent variable "board involvement." Each hypothesis was tested separately, and was then combined into the main model, which tests all hypotheses that were significant in the individual hypothesis tests.

Since board involvement is a survey item, the number of observations drops from N=176 in the logistic regressions (with the exception of strategic controls) to N=85. As mentioned in Chapter III, four control variables were included in each regression model. Relative firm performance, the level of diversification, and firm size were used as control variables. In addition, market performance was substituted for relative firm performance. This substitution did not alter the models beyond slight changes in independent and control variable β's and minor changes in R^2 values. No other disturbances were observed. Results of the market performance are included in each table. A dummy variable representing restructuring category was included to remove variance attributable to differences in the type of restructuring. Finally, a dummy variable controlling for the chemical industry was entered into the linear regression models. Results of the logistic and linear regression analysis are presented in Table 10 and Table 11, respectively.

Board Equity

Hypothesis #1 predicted that board equity holdings are negatively related to board initiated restructuring. Model 1 in Table 10 presents the results of the test of hypothesis #1. Results suggest that board

TABLE 10

Results of the Logistic Regression Analysis for each Hypothesis and the Main Model

Dependent Variable:	Board versus non-board restructuring									
N=176[1]	Model 1	Model 2	Model 2A	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Main Model
Variable:	β-Estimate (X^2-Statistic)									
Intercept	-2.73 (8.84)**	-1.50 (2.34)+	-1.82 (9.65)**	-3.06 (10.95)***	-5.66 (21.37)***	-11.02 (31.75)***	-3.25 (15.65)***	-1.98 (1.83)	-0.02 (0.87)	-11.84 (23.48)***
Board Equity Ownership	-4.45 (3.94)*									-4.76 (4.49)*
CEO Equity Ownership		-23.79 (9.56)**								
Market Value of CEO Equity			-6.00 (5.46)*							-6.15 (5.98)**
CEO Tenure				-0.06 (3.58)+						-0.03 (0.56)
Board Tenure Variance					2.64 (8.78)**					2.59 (5.48)*
Board Composition						10.01 (24.93)***				10.94 (16.14)***
Board Size							-0.04 (0.46)			
Financial Control								0.03 (0.02)		
Strategic Control									-0.74 (4.32)*	-0.73 (4.29)*
Controls[2]:										
Relative Firm Performance	-0.06 (3.85)*	-0.06 (4.38)*	-0.05 (3.01)+	-0.06 (3.64)+	-0.09 (6.53)*	-0.06 (1.94)	-0.06 (4.17)*	-0.05 (1.98)	-0.02 (0.11)	-0.10 (4.18)*

TABLE 10 (continued)

Dependent Variable: Board versus non-board restructuring

Variable:	Model 1	Model 2	Model 2A	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Main Model
	β-Estimate (X^2-Statistic)									
Market Performance	-59.99 (10.35)**	-68.25 (11.17)***	-63.09 (10.88)***	-79.56 (13.18)***	-52.27 (7.27)**	-39.96 (3.74)+	-60.00 (10.65)**	-47.01 (1.60)	-47.75 (1.52)	-53.12 (4.11)*
Firm Size	0.07 (0.25)	0.08 (0.28)	0.17 (1.56)	0.15 (1.18)	0.14 (0.83)	0.19 (1.66)	0.18 (1.44)	-0.21 (0.71)	0.18 (0.53)	0.27 (1.19)
Level of Diversification	1.38 (12.15)***	1.44 (12.10)***	1.36 (11.63)***	1.40 (9.27)**	1.45 (9.50)**	1.15 (6.66)**	1.45 (12.55)***	1.85 (6.33)*	1.75 (5.99)**	1.49 (5.48)*
Restructuring Category	-0.74 (3.67)*	-0.81 (4.12)*	-0.84 (4.59)*	-0.79 (3.54)+	-0.93 (4.57)*	-0.76 (2.87)+	-0.70 (3.40)+	-0.95 (1.95)	-0.97 (1.89)	-1.19 (4.29)*
Model Chi-Square	32.91	43.81	33.66	26.56	38.42	67.00	29.07	12.96	15.56	49.81
Degrees of Freedom	5	5	5	5	5	5	5	5	5	10
-2 Log-Likelihood	184.17***	170.83***	180.26***	159.70***	148.49***	147.64***	185.57***	62.98+	57.55***	78.32***
Pseudo R-Square	0.16	0.20	0.16	0.15	0.20	0.28	0.14	0.13	0.19	0.43

*** p < .001, ** p < .01, * p < .05, + p < .10.

(1) N=176: Non-board initiated=123, board initiated=53.

(2) Market Performance (Jensen's Alpha) was entered into each model after removing relative firm performance.

(3) Pseudo R-Square = C/(N+C) where C=Chi-Square value and N=number of observations. See Aldrich & Nelson (1984).

(4) N=85 for Model 7, Model 8, and the Main model.

(5) The main model does not include independent variables that were not significant in the individual hypothesis tests.

TABLE 11

Results of the Linear Regression Analysis for each Hypothesis and the Main Model

Dependent Variable:	Board involvement									
N=85[1]	Model 1	Model 2	Model 2A	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Main Model
Variable:	β-Estimate (T-Statistic)									
Intercept	3.17 (2.67)**	4.64 (4.06)***	3.37 (3.16)**	4.17 (3.58)***	3.06 (2.14)*	2.76 (1.70)+	3.52 (3.23)**	3.65 (2.71)*	6.25 (5.02)***	4.71 (3.32)**
Board Equity Ownership	2.27 (2.09)*									8.79 (2.83)**
CEO Equity Ownership		-13.19 (2.40)*								
Market Value of CEO Equity			-4.77 (2.25)*							-5.62 (2.11)*
CEO Tenure				-0.07 (1.67)+						-0.03 (1.60)
Board Tenure Variance					0.29 (0.26)					
Board Composition						1.13 (0.69				
Board Size							0.15 (1.38)			
Financial Control								0.03 (0.02)		
Strategic Control									-0.85 (3.59)***	-0.76 (3.11)**
Controls[2]:										
Relative Firm Performance	-0.03 (1.88)+	-0.07 (1.68)+	-0.06 (1.63)+	-0.07 (1.67)+	-0.07 (1.63)+	-0.07 (1.83)+	-0.08 (2.02)*	-0.07 (1.65)+	-0.06 (1.84)+	-0.06 (1.73)+

TABLE 11 (continued)

Dependent Variable:	Board involvement									
	Model 1	Model 2	Model 2A	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Main Model
Variable:	β-Estimate (T-Statistic)									
Market Performance	-57.66 (2.51)*	-53.94 (2.23)*	-57.26 (2.46)*	-53.90 (2.20)*	-58.90 (2.63)**	-56.70 (2.38)*	-53.63 (2.20)*	-49.09 (1.47)	-57.54 (2.48)*	-59.67 (2.71)*
Firm Size	0.19 (1.03)	0.28 (1.59)	0.13 (0.73)	0.09 (0.49)	0.22 (1.13)	0.20 (1.04)	0.44 (1.84)+	0.19 (0.93)	0.21 (1.27)	0.02 (0.12)
Level of Diversification	1.42 (2.63)*	1.18 (2.26)*	1.33 (2.55)*	1.60 (2.94)**	1.55 (2.70)**	1.26 (2.20*	1.26 (2.32)*	1.35 (2.50)*	0.91 (1.78)+	0.88 (1.89)+
Restructuring Category	-0.52 (0.97)	-0.80 (1.55)	-0.90 (1.70)+	-0.42 (0.76)	-0.61 (1.10)	-0.56 (1.06)	-0.78 (1.44)	-0.71 (1.32)	-0.43 (0.88)	-0.67 (1.46)
Chemical Industry	-0.96 (1.48)	-1.28 (1.71)+	-1.24 (1.64)+	-0.95 (1.98)*	-0.83 (1.34)	-1.02 (1.51)	-1.25 (1.68)+	-0.80 (1.28)	-0.95 (1.42)	-1.09 (1.62)
F-Statistic	2.53*	3.69**	3.53**	2.61*	2.41*	2.43*	2.77*	1.96+	5.40***	3.55***
Degrees of Freedom	6,85	6,85	6,85	6,85	6,85	6,85	6,85	6,85	6,85	9,85
R-Square	0.18	0.24	0.23	0.18	0.18	0.17	0.19	0.17	0.31	0.37

*** p < .001, ** p < .01, * p < .05, + p < .10.

(1) N=85: Non-board initiated=66, board initiated=19.

(2) Market Performance (Jensen's Alpha) was entered into each model after removing relative firm performance.

(3) The main model does not include independent variables that were not significant in the individual hypothesis tests.

equity ownership is negatively and significantly related to board initiated restructuring as hypothesized (b=-4.45, p < .05). The model is significant (-2 Log-likelihood=184.17, p < .001) and explains approximately 16-percent of the variance (using a Pseudo-R-Square statistic) in board versus non-board initiated restructuring.

The test of hypothesis #1A using linear regression analysis is presented in Model 1, Table 11. Hypothesis #1A proposed that board equity is positively related to board involvement. As predicted, board equity is positively and significantly related to board involvement (b=2.77, p < .05). The model is significant (F=2.53, p < .05) with an R^2=.18.

CEO Equity

Hypothesis #2 predicted that CEO equity holdings are negatively related to board initiated restructuring. Model 2 in Table 10 presents the results of the hypothesis test. Results indicate that CEO equity is negatively and significantly related to board initiated restructuring (b=-23.79, p < .01). The logistic regression model is significant (-2 Log-likelihood=170.83, p < .001) and explains roughly 20-percent of the variance in board versus non-board restructuring. Because of the multicollinearity between CEO equity and board equity, an alternate measure of CEO equity was used. The market value of CEO equity was tested in model 2A. Results of the test indicate the same negative and significant relationship as with CEO equity (b=-6.00, p < .05). The model is also significant (-2 Log-likelihood=180.26, p < .001) and explains 16 percent of the variance associated with board

versus non-board restructuring. Market value of CEO equity ownership was substituted for CEO equity in the main model.

Hypothesis #2 predicted that CEO equity is negatively related to board involvement. Models 2 and 2A in Table 11 present the results of the hypothesis test. Results from both model 2 and 2A provide support for the hypothesis. CEO equity (percent of common shares outstanding) and the market value of CEO equity were both negatively and significantly related to board involvement. In addition, both variables had approximately the same explanatory power, CEO equity (b=-13.19. $p < .05$) and market value of CEO equity (b=-4.77, $p < .05$). Both models were significant and explained roughly the same amount of variance. Model 2 using CEO equity (percent) was significant (F=3.69, $p < .01$) and had an R^2 of .24 and Model 2A using market value of CEO equity was significant (F=3.53, $p < .01$) with an R^2 of .23. As above, the market value of CEO equity was substituted for CEO equity in the main model (Table 11).

CEO Tenure

Hypothesis #3 predicted a positive relationship between CEO tenure and board initiated restructuring. Model 3 in Table 10 contains the results of the test of hypothesis 3. Results were contrary to what was predicted. CEO tenure was negatively related to board initiated restructuring although at a marginally significant level (b=-.06, $p < .10$). The model is significant (-2 Log-likelihood=159.70, $p < .001$) and explains roughly 15 percent of the variance.

Hypothesis #3 proposed that CEO tenure is positively related to

board involvement. Model 3 in Table 11 presents the results of the hypothesis test. Consistent with the logistic regression results, CEO tenure was marginally significant and was the opposite of what was hypothesized ($\underline{b}$=-.07, $\underline{p}$ < .10). Results suggest that CEO tenure is negatively related to board involvement. The model was significant ($\underline{F}$=2.61, $\underline{p}$ < .05) with an R^2 of .18.

Board Tenure Variance

Hypothesis #4 suggested that heterogeneity in board member tenure is positively related to board initiated restructuring. Model 4 in Table 10 presents the results for board tenure variance. Results indicate support for the hypothesis as board tenure variance is positively and significantly related to board initiated restructuring ($\underline{b}$=2.64, $\underline{p}$ < .01). The model is significant (-2 Log-likelihood=148.49, $\underline{p}$ < .001) and explains 20 percent of the variance between board and non-board initiated restructuring.

Hypothesis #4 predicted that board tenure variance is positively related to board involvement. Results of the hypothesis test do not support the hypothesis. Model 4 in Table 11 presents the results of the hypothesis test. The model is significant ($\underline{F}$=2.41, $\underline{p}$ < .05) with an R^2 of .18. Board tenure variance entered the model with the expected sign but was not significant ($\underline{b}$=.29, $\underline{p}$ < .79).

Board Composition

Hypothesis #5 proposed a positive relationship between increasing outside board membership on the board and board initiated

restructuring. Model 5 in Table 10 presents the results of the logistic regression analysis. Results provide strong support for the hypothesis, that board composition is positively and significantly related to board initiated restructuring (b=10.01, $p < .001$). The model is very significant (-2 Log-likelihood=147.64, $p < .001$) and explains approximately 28-percent of the variance.

Hypothesis #5 predicted that board composition is positively related to board involvement. Model 5 in Table 11 presents the results of the hypothesis test. Board composition entered the model with the expected sign but was not significant (b=1.13, $p < .49$). In view of this finding, hypothesis #5 was not supported. The model was significant (F=2.43, $p < .05$) and explained approximately 17 percent of the variance in board involvement.

Board Size

Hypothesis #6 predicted that as board size increases, the likelihood of board initiated restructuring also increases. Model 6 in Table 10 presents the results of the analysis. Board size was not significant in the tested model and entered the model with a negative as opposed to the expected positive sign (b=-.04, $p < .49$). The model was significant (-2 Log-likelihood=185.57, $p < .001$) and explained 14-percent of the variance.

Hypothesis #6 predicted that board size is positively related to board involvement. Model 6 in Table 11 presents the results of the hypothesis test. Results of the test do not support the hypothesis (b=.15, $p < .17$).

Financial Controls

Hypothesis #7 proposed that emphasis on financial control procedures by top management is positively related to board initiated restructuring. Model 7 in Table 10 presents the results of the hypothesis test. Results do not support the hypothesis. Financial control usage entered the model with the predicted sign but was not significant (b=.03, p < .88). The model was marginally significant (-2 Log-likelihood=62.98, p < .10) and explains 13 percent of the variance between board and non-board initiated restructuring.

Hypothesis #8 predicted that emphasis on financial control procedures by top management is positively related to board involvement. The results from Model 7 in Table 11 do not support the hypothesis. Emphasis on financial controls was not significantly related to board involvement (b=.03, p < .88). The model was marginally significant (F=1.96, p < .10) with an R^2 of .17.

Strategic Controls

Hypothesis #8 proposed that an emphasis on strategic controls is negatively related to board initiated restructuring. Model 8 in Table 10 presents the results. Results suggest support for the hypothesis as strategic controls are negatively and significantly related to board initiated restructuring (b=-.74, p < .05). The model is also significant (-2 Log-likelihood=57.55, p < .001) and explains 19-percent of the variance between board and non-board initiated restructuring.

Hypothesis #8 predicted that use of strategic controls by top management is negatively related to board involvement. The results

from Model 8 in Table 11 provide support for the hypothesis. Use of strategic controls was negatively and significantly related to board involvement (b=-.85, p < .001). The model was significant (F=5.40, p < .001) with an R^2 of .31.

Main Model

Table 10 presents the main model, which tests all hypotheses which were significant in the individual hypothesis tests in one model. The model is significant (-2 Log-likelihood=78.32, p < .001) and explained roughly 43 percent of the variance in board versus non-board initiated restructuring. All independent variables entered the model consistent with the individual hypothesis tests. Market value of CEO equity and board equity were both negatively and significantly related to board initiated restructuring (b=-6.15, p < .01) and (b=-4.76, p < .05) respectively. Board composition (b=10.94, p < .001) and board tenure variance (b=2.59, p < .05) were both positively and significantly related to board initiated restructuring. CEO tenure was not significant (b=-0.03, p < .45). Strategic controls were negatively and significantly related to board initiated restructuring (b=-.73, p < .05).

The main model presented in Table 11 tests all hypotheses which were significant in the individual hypothesis tests. The model is significant (F=3.55, p < .001) and explains roughly 37 percent of the variance in board involvement. CEO equity was negatively and significantly related to board involvement (b=-5.62, p < .05). Board equity was positively and significantly related to board involvement

(b=8.79, p < .01). CEO tenure was negatively related to the board involvement but not significantly (b=-0.03, p < .11). It should be noted that CEO tenure was significant in the individual hypothesis test but at the .10 level. Use of strategic controls was negatively and significantly related to board involvement (b=-.76, p < .01).

Summary

Table 12 presents a summary of the statistical analysis performed. The results of logistic and linear regressions are listed for each hypothesis. In summary, hypotheses #1 (board equity) , #2 (CEO equity), #4 (board tenure variance), #5 (board composition), and #8 (strategic controls) were supported in the logistic regression analysis. Hypothesis #3 (CEO tenure) was marginally supported, but the relationship was the opposite of what was predicted. Hypotheses #6 (board size) and #7 (financial controls) were not supported.

Hypotheses #1A (board equity), #2 (CEO equity), and #8 (strategic controls) were all supported in the linear regression analyses. Hypothesis #3 (CEO tenure) was marginally significant but the sign was the reverse of what was predicted. Hypotheses #4 (board tenure variance), #5 (board composition), #6 (board size), and #7 (financial controls) were not supported in the linear regression models.

TABLE 12

Summary of the Results of Individual Hypothesis Testing

	Testing Methodology	
Hypothesis	Logistic Regression	Linear Regression
Hypothesis #1 Board equity	S	-
Hypothesis #1A Board equity	-	S
Hypothesis #2 CEO equity	S	S
Hypothesis #3[1] CEO tenure	MS, R	MS, R
Hypothesis #4 Board tenure variance	S	NS
Hypothesis #5 Board composition	S	NS
Hypothesis #6 Board size	NS	NS
Hypothesis #7 Financial controls	NS	NS
Hypothesis #8 Strategic controls	S	S

[1] CEO tenure was not supported in either main model.
S = Hypothesis supported.
NS = Hypothesis not supported.
MS = Hypothesis supported at the .10 level.
R = Hypothesis related but with the reverse sign.

CHAPTER V

DISCUSSION AND CONCLUSION

The purpose of this research was to evaluate firm governance devices and internal controls and their ability to predict who will initiate restructuring. Specifically, hypotheses were tested to investigate the relationship between an equity based model (agency theory), board and board and managerial characteristics (upper echelon theory), and internal controls and their effect on who (top managers or the board of directors) restructures the firm. There has been little empirical research on the relationship between performance and restructuring in the form of strategic change. Although agency theory speaks to this problem, few empirical tests have been done. A substantial literature has been devoted to top management turnover although this research deals primarily with conditions antecedent to CEO replacement without regard to strategic intent or has focused on predicting who the successor is (e.g. insider or outsider). The primary objective of this study was to expand on previous research by identifying factors that enable prediction of who will initiate restructuring.

The chapter is divided into two subtopics: 1) a discussion of the hypothesis test results, the main models, and an integration to provide a more complete picture of what the main effects are, and, 2) an implications section examining the contribution to existing theory, limitations of the study, and implications for future research.

Discussion of Results

A discussion of hypothesis test results will proceed in hypothesis order. All analyses pertaining to a given hypothesis will be combined and examined.

As argued above, the cornerstone of the model used to describe board versus non-board initiated restructuring and board involvement is that low levels of firm performance lead to restructuring. It was argued that firms classified as having had board initiated restructuring may have lower levels of performance than non-board initiated restructuring firms. Results of a t-test (presented in Table 13) between board versus non-board initiated restructuring indicates that firm performance is significantly lower in board initiated restructurings using relative firm performance (t=1.96, $p < .05$) and market performance (t=2.64, $p < .01$). This result is similarly confirmed in Tables 10 and 11, where performance is negatively related to board initiated restructuring.

Board Equity

Hypothesis #1 predicted a negative relationship between board equity and board initiated restructuring. Results of the test of hypothesis #1 suggest that as board equity increases, the likelihood of non-board initiated restructuring also increases. Restated, firms in which the board members own substantial equity are more likely to be restructured without dismissing the CEO. Recall that the distinction between board versus non-board initiated restructuring was used in the logistic regressions, as the board may exert pressure for change

TABLE 13

Descriptive Statistics for Board Versus Non-Board Initiated Restructuring

	Non-Board Initiated			Board Initiated			
Variable	N	Mean	STD	N	Mean	STD	T-Statistic
Board Equity Ownership	123	0.061	0.100	53	0.033	0.051	2.450*
CEO Equity[1] Ownership	123	0.063	0.126	53	0.007	0.012	4.445***
Market Value (CEO Equity)	123	8.556	13.961	53	3.810	7.158	2.922**
CEO Tenure	123	8.842	7.760	53	6.772	5.607	1.856+
Board Tenure Variance	123	0.737	0.245	53	0.887	0.238	-3.484***
Board Composition	123	0.663	0.155	53	0.827	0.109	-6.973***
Board Size	123	10.959	4.011	53	12.169	3.099	-2.167*
Financial Control	66	2.800	1.309	19	2.875	1.310	-0.199
Strategic Control	66	2.960	1.211	19	2.188	0.655	3.259**
Firm Size	123	6.059	1.609	53	6.840	1.502	-3.013**
Relative Firm Performance	123	0.299	6.148	53	-1.209	6.057	1.961*
Market Performance	123	-1.945	11.48	53	-7.050	11.83	2.643**
Level of Diversification	123	1.245	0.498	53	1.575	0.681	-3.180**
Board Involvement	66	3.041	1.947	19	5.500	1.673	-4.530***

***p < .001; **p < .01; *p < .05, +p < .10

[1] CEO Equity was also operationalized as (Market Value of CEO Equity/Cash Compensation + Bonuses). The T-test results indicate that CEOs in non-board initiated firms have a significantly higher ratio of wealth in equity/annual compensation than those in board initiated firms.

without dismissing the CEO. Such action is clearly not board initiated, nor is it entirely manager initiated. The dependent variable board involvement, was examined using a linear regression procedure. Results for hypothesis 1A support the hypothesis in that board equity is positively and significantly related to board involvement. These results suggest that board members holding substantial equity positions in the firm will pressure top management for change prior to a decision to dismiss the CEO. Restated, this finding may imply that equity ownership provides increased incentive to monitor firm performance and operations since board members' personal wealth is tied to firm outcomes (Jensen & Warner, 1985). It is also important to note that board members owning large equity stakes in the firm not only have the incentive to monitor but also have the influence to force restructuring before it becomes obvious to all market participants that restructuring is needed. This result supports the conclusions of Miller and Komorita (1987), who argued that board members with large equity holdings are likely to initiate and lead coalitions and be highly influential in the board's ultimate decisions (Davis, 1969).

Therefore, the results of the hypothesis test suggest that board equity is positively related to board involvement but that this involvement is brought to bear prior to dismissing the CEO. Firms in which board equity ownership is low would be expected continue declining in performance until the board takes steps to dismiss the CEO. This last statement is consistent with the t-test finding that board equity in non-board initiated firms is significantly higher than

in board initiated firms (t=2.45, p < .05). In addition, these arguments suggest that board equity may have a curvilinear relationship with board involvement. That is, board equity may lead to increased board involvement up to some point beyond which board member equity holdings decrease and lead to inaction until CEO dismissal occurs. In order to check for a curvilinear relationship, board equity squared was entered into the linear regression main model. Results suggest that board equity squared is positively related to board involvement (b=21.86, p < .01). The model was significant (F=5.95, p < .0001) and explains 46 percent of the variance in board involvement. The model incorporating board equity squared has greater explanatory power than the main model in Table 11.

CEO Equity

Hypothesis #2 predicted that CEO equity is negatively related to board initiated restructuring. This hypothesis was supported in both of the individual hypotheses and the main models. This result suggests that increasing levels of CEO equity holdings (operationalized as percent of total shares outstanding and market value of CEO equity) are negatively related to board initiated restructuring. Previous research has indicated that managerial equity holdings decrease the prospect of managerial interests diverging from those of shareholders in the case of takeovers (Turk, 1992; Walkling & Long, 1984), greenmail decisions (Dann & DeAngelo, 1983; Kosnik, 1987, 1990), and the adoption of poison pill amendments (Malatesta & Walkling, 1988). Furthermore, research by Morck, Schleifer, and Vishny (1988) suggests that the market values

increased managerial equity holdings. One interpretation of this finding is that this represents a convergence of interests between managers and shareholders. In the case of restructuring, this result suggests that managers will restructure the firm when performance begins to suffer because they have the incentives to do so. Morck et. al. (1988) also found evidence suggesting that CEO equity holdings exhibit a curvilinear relationship to market valuation. This suggests that managers with extremely high equity holdings (greater than 50 percent) may be entrenched. When this occurs, managers may be able to pursue their own agendas without worrying about board involvement. More will be said concerning this point during the discussion of CEO tenure results.

CEO Tenure

Hypothesis #3 predicted that CEO tenure is positively related to board initiated restructuring. The findings of this study suggest that the relationship is the opposite of what was hypothesized. CEO tenure appears to be negatively related to board initiated restructuring and board involvement using both analytical procedures, but was not significant in the main models. This outcome was rather surprising, as it contradicts much of the literature on CEO turnover, business turnaround, and change. These theoretical streams all embrace the negative relationship between CEO tenure and willingness to initiate change (Miller, 1991; Katz, 1982; Tushman & Romanelli, 1985) as well as the finding that radical changes may best be led by a CEO hired from outside the organization (Hofer, 1980; Tushman & Romanelli, 1985;

Nadler & Tushman, 1989). As tenure increases, organizational inertia (Hannan & Freeman, 1984) and traditional responses to external threats (Kiesler & Sproull, 1982) may also increase.

To explain this contradiction it is necessary to examine possible influences on CEO tenure. CEO tenure, although marginally supported at the .10 level, was consistently supported in the individual hypothesis tests (model 3, tables 10 and 11). This suggests the significance of CEO tenure was not an aberration and may represent the true state of affairs in the firm.

The first explanation that comes to mind is that CEO equity is interacting with CEO tenure and causing this relationship. Research by Allen and Panian (1982) and McEachern (1975) found that CEO equity was associated with longer tenure on the part of the CEO. This could be due to the exercising of stock options, stock splits, or accumulation of stock. An examination of the correlation matrix (see Table 9) indicates that the correlation is positive and significant (r=.23, p < .01). Thus increases in the market value of the CEO's equity holdings are positively related to CEO tenure. A t-test was conducted to compare an interaction term between market value of CEO equity and CEO tenure with who initiates restructuring. Results of this t-test do not add any explanatory power beyond that explained by the main effect, CEO equity, suggesting that CEO equity holdings are not a significant factor in explaining CEO tenure.

Another factor that might influence tenure would be the composition of the board of directors. Research has shown that the CEO is often part of the nominating committee for the board. Over time,

the CEO can effectively shape the board and come to dominate it as he/she will have nominated a large number of board members (Mace, 1971; Pfeffer, 1972; Vance, 1983). Implicit to this argument is the assumption that the CEO will not nominate individuals that may disagree with his or her perceived direction for the firm. Also, the nature of the outside board members may also affect tenure. Board positions, especially positions in larger companies are prestigious and probably desired by most outsiders. There may be informational and legitimacy advantages for the firm by having well known individuals on the board. Many large firms employ CEOs from other firms on their boards. Any CEO may face the possibility of dismissal though this threat may be minimized if CEOs serving as outside members of poorly performing firms feel of empathy toward the current CEO. In this case, board members may not act in the best interests of shareholders. They may instead attempt to influence the CEO by offering suggestions or by applying pressure to force restructuring as opposed to dismissing the CEO. This factor has not been examined in the literature and may be relatively prevalent in large firms. To test for this, all board members were coded "0" if the were not a CEO and "1" if they were. The sum of board members (minus the CEO of the firm) was then analyzed. Results of the t-test indicate that there are significantly more CEOs on boards of non-board initiated firms than on board initiated firms ($\underline{t}$=2.723, $\underline{p}$ < .007). The Spearman rank correlation between board initiated restructuring and the number of CEO on the board is ($\underline{r}$=-.23, $\underline{p}$ < .01. An interaction term between CEO tenure and number of CEOs on the board was created and subjected to a t-test. The t-test indicated that the

interaction between CEO tenure and number of CEOs on the board was significant (t=2.615, p < .01) but the t-statistic was less significant than the main effect of the number of CEOs on the board (t=2.723, p < .01).

The issue of CEO tenure might also be explained by the power held by the CEO as time passes. As above, the CEO may nominate new board members, thereby increasing their influence over board composition. In addition they may be able to remove troublesome board members (Finkelstein & Hambrick, 1989). Because these newly elected board members may owe their position to the CEO, they may not evaluate the CEO objectively. Fredrickson et.al. (1988) argued that CEOs gain power over time as they gain voting control or co-opt the board of Directors. In addition, the CEO may control the internal information system and withhold relevant information from board members that might be damaging (Coughlin & Schmidt, 1985).

Research by Wiersema and Bantel (1992) found that the likelihood of major changes in strategy were associated with high top management team tenure (up to some point). They argued that greater levels of social integration and more effective patterns of communication characteristic of long-tenured groups enhanced the groups' ability to initiate change. Their findings suggest that firms whose CEOs had tenure times of less than 5 years had the least change. Those with tenure times greater than 13 years also exhibited less strategic change. Between 5 and 13 years, top management teams seemed to initiate the most change.

In summary, the negative relationship between CEO tenure and both

board initiated restructuring and board involvement remains unexplained. CEO equity and the number of board members who are CEOs are both negatively related to board involvement but the interaction term with CEO tenure does not increase explanatory above the main effect. It is possible that CEOs may be able to dominate the board by nominating new members or co-opting board members but this explanation remains untested. The findings of Wiersema and Bantel (1992) suggest that CEOs may be more likely to initiate change when tenure periods are moderate (5 to 13 years). They further argue that this finding is due to social integration and communication which improves with time. This explanation is essentially the same as that provided by Finkelstein and Hambrick (1989). Their reasoning suggests a power or political as opposed to a governance and control explanation.

Board Tenure Variance

Hypothesis #4 predicted that heterogeneity in board member tenure is positively related to board initiated restructuring. Results of the logistic regression analysis support the hypothesis. This finding suggests that as board tenure variance increases, there is a decrease in cohesion and allegiances due to increased difficulty in maintaining relationships. This is consistent with arguments put forth by Fredrickson et. al. (1988). In addition, the establishment of different cohorts within the board may increase tension and pressure during board meetings in the face of declining performance. Reliance on standard responses to problems (Kiesler & Sproull, 1982) and the tendency towards structural inertia (Hannan & Freeman, 1984) may be

reduced due to the lack of cohesion and allegiance to the CEO. In this scenario, board members may use the CEO as a scapegoat (Walsh & Seward, 1990) if the real source of the problems cannot be identified.

Results of the linear regression using board involvement do not support the hypothesis. Board tenure variance is positively related to board involvement, but the relationship is not significant. This finding suggests that increasing board tenure variance does not lead to increase in board pressure or involvement. Rather, variations in tenure become important when the firm has suffered performance declines and is considering what action to take. This scenario suggests that tenure variance, unlike board equity, may not increase incentives to monitor and influence top management decisions. Instead, its effect becomes manifest when board equity is low, the board has insufficient information regarding problems, or the board suffers from a lack of expertise.

An examination of the correlation matrix provides some support for this assertion, in that board equity and board tenure variance are negatively but not significantly correlated (r=-.10, p < .12). Walsh and Seward (1990) argued that board members attempt to discover what or who is responsible for the problems the firm faces. If the members cannot determine what or who is responsible and they lack the knowledge or expertise to offer solutions, they may dismiss the CEO and use him or her as a scapegoat. Given that board members have reputations as "decision control experts" (Fama & Jensen, 1983), they may maximize their own utility by dismissing the CEO as opposed to tarnishing their reputations as "experts" when a solution to a problem cannot be found.

Board tenure variance may be a proxy for a crises on the board in which the CEO is a victim of board dividedness or lack of information to attribute problems elsewhere. The preceding arguments suggest that tenure variance should not enter into a model based on board involvement (which implies some cohesion and concerted effort), as it is not related to pressure to restructure. Board tenure variance appears to be related to the situations outlined above where lack of information, lack of board cohesion, or a lack of expertise leads to continued declines in performance and the ultimate decision to dismiss the CEO.

Board Composition

Hypothesis #5 predicted that board composition is positively related to board initiated restructuring. Results indicate support for the hypothesis using logistic regression. This finding is consistent with a large body of research in agency theory and finance. Outside members of the board are presumed to be the "true guardians" of shareholder wealth. Numerous studies in finance have examined stock market reactions to changes in firm governance. Studies examining CEO dismissal have found that declining performance is positively associated with CEO dismissal (Coughlin and Schmidt, 1985; Weisbach, 1988; Warner, Watts, & Wruck, 1988). In addition, firms are more likely to add outsiders when performance has been low (Hermalin & Weisbach, 1988). Byrd and Hickman (1991) argued that outside directors represent the principal monitoring component of the firm, as insiders may be beholden to the CEO for their jobs (Geneen, 1984; Patton &

Baker, 1987). These results suggest that outsiders are the principal monitoring component and the group most likely to remove a CEO when firm performance is declining or below expectations.

Results of the linear regression analysis do not support the prediction that board composition is positively related to board involvement. The correlation between board composition and board involvement was marginally significant and positive (R=.20, $P < .10$). After controlling for firm size, diversification, and performance, board composition was not significant. This result was unexpected. The theory supporting this hypothesis was based on outside directors, being the principal monitors of the firm. When performance begins to suffer, outsiders would traditionally be expected to pressure for change as part of fulfilling their responsibilities to shareholders (Fama & Jensen, 1983).

In retrospect, although these findings are inconsistent with managerial hegemony theory, they are not inconsistent with agency theory. Rather, they suggest that outsiders do not exert pressure for change; instead they act as the ultimate control in the firm and decide whether to dismiss the CEO or not. Theory, for instance, by Baysinger and Hoskisson (1990) suggests that insiders can provide detailed information concerning firm operations. Outsiders, on the other hand, lack in-depth knowledge of the firm (Patton & Baker, 1987) and therefore are reliant on insiders to provide this information. Outside directors may tend to rely on financial information as opposed to information the insiders bring to the meeting (Baysinger & Hoskisson, 1990). In view of this, increasing the number of outsiders relative to

insiders may serve to reduce the effectiveness of the board in finding a solution to problems and possibly decrease the board's ability to place constructive pressure on the CEO. As the number of outsiders increases, the degree of input into problem solving may decrease while the tendency to dismiss the CEO increases (e.g. Warner, et. al., 1988). The outsiders may not recognize problems until they are severe and require serious action (e.g., removal of CEO). Therefore, the composition of the board may not play a significant role in pressuring for strategic change except in cases where the CEO was dismissed. Another problem may be that board composition says nothing about board dynamics or member involvement since it relies on a classification of individual members into two distinct categories. The issue of dichotomous classifications of board members will be examined in the limitations section of the discussion chapter.

Board Size

Hypothesis #6 predicted that board size is positively correlated with board initiated restructuring. Results of the hypothesis tests did not support the hypothesis. Neither the logistic or linear regressions were significant. The problem with this variable is that it is highly correlated with diversification (r=.51, p < .0001) and firm size (r=.68, p < .0001). When the control variables were entered into the model, the significance of board size disappeared. In essence, board size would appear to be a proxy for firm size or the level of diversification due to the observed multicollinearity with firm size and diversification. Previous studies that found board size

to be significant did not control for firm size or diversification in their analyses (e.g. Clendenin, 1972; Helmich, 1980). If control variables are left out of the model, board size is significant at the .05 level. This suggests that measures of board "manageability" (Clendenin, 1972) and increasing levels of CEO turnover with increasing board size (Helmich, 1980) may be problematic. Simple counts of board members may not capture the dynamics theory postulates. A better approach might be to examine the issue from a group dynamics viewpoint where lack of cohesion among group members or factionalization of the board can be examined using the proper constructs and variable operationalizations. In fact, board tenure variance and variance in industry experience or functional backgrounds (Hambrick & Mason, 1984) may be a better operationalization of this construct.

Financial Controls

Hypothesis #7 predicted that emphasis on financial control procedures by top management is positively related to board initiated restructuring. This hypothesis was not supported using logistic or linear regression. This finding may be due to problems with the survey item. A t-test between board initiated and non-board initiated restructuring indicates that there is no significant difference between the categories of restructuring and financial control usage (t=0.19, p < .95). As discussed in Chapter III, the lack of significance may be due to the structuring of the survey item. Results of the factor analysis suggest that financial control items loaded on a short-term financial control factor and a long-term factor. The lack of

significant differences and the factor analysis results suggest that financial controls (e.g., budgets, performance evaluation criteria) are always in use to some extent and that respondents may be answering the survey item based on this fact. Internal control may, in fact, be dependent on the presence or absence of strategic controls, not the use the use of financial controls. Firms emphasizing financial controls to the exclusion of strategic controls may have the predicted positive relationship with board initiated restructuring. This is consistent with the test of the strategic control hypothesis which suggests that emphasis on strategic controls is negatively related to board initiated restructuring.

Strategic Controls

As suggested above, hypothesis #8 predicting that emphasis on strategic controls is negatively related to board initiated restructuring was supported. This might suggest that top managers using some strategic controls may be able to identify problems before performance declines to a point where board action is initiated. Ultimately, the use of strategic controls suggests that managers will have the information necessary to realize that a problem exists and correct it prior to a severe decline in performance. In the case of restructuring firms, the use of strategic controls may not have been very effective because performance did suffer prior to action being taken. Despite the possible lack of effectiveness, emphasis on strategic controls was significantly higher in non-board initiated versus board initiated firms (t=3.26, $p < .01$). This finding is

consistent with theory proposed by Jaeger and Baliga (1985) who argue that strategic adaptation may involve significant changes in strategies and processes. The lack of strategic control or subjective evaluative criteria may lead to managerial risk aversion and a focus on specific performance standards (Hoskisson & Hitt, 1988; Hoskisson, Hitt, & Hill, 1991). In addition, lack of strategic controls may discourage experimentation with changes that need to be made and lead to lower firm performance and loss of competitive ability (Hitt & Hoskisson, 1991; Hitt, Hoskisson, & Harrison, 1991).

Model of Corporate Restructuring

This section discusses the overall models that were tested in this study. Both models are based on who initiates restructuring but the two models approach the problem using different dependent variables. The objective model uses the dichotomous dependent variable board versus non-board initiated restructuring whereas the subjective model uses a survey item pertaining to board involvement in the decision to restructure. Because of these differences, the models explain different sources of variance. These models will be discussed separately then combined to present a more comprehensive view of the dynamics involved in who initiates restructuring. Finally, implications of the research will be examined.

Board versus non-board model.

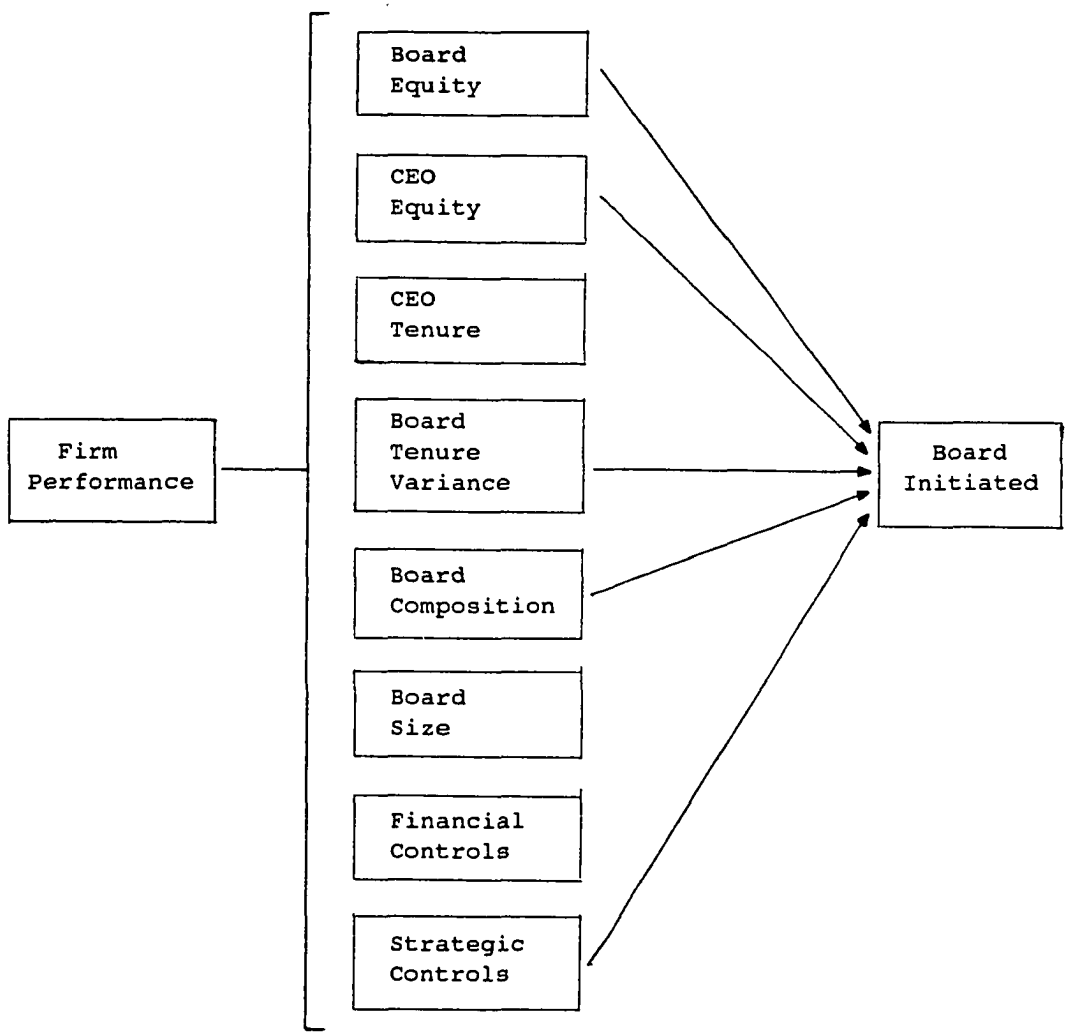
Results of the main model presented in Chapter IV (Table 10) suggest that 43 percent of the variance in board versus non-board initiated restructuring can be explained by the

independent variables. Hypotheses were also grouped into their respective categories: Equity ownership, board structure and board and managerial characteristics, and internal controls. Separate models containing theses three categories of hypotheses were tested to determine how much variance each theory could explain. The equity model explains approximately 26 percent of the variance in board versus non-board restructuring. Board and managerial characteristics explain 30 percent and internal controls explain roughly 19 percent of the variance. As stated above, the main model explains 43 percent of the variance in board versus non-board restructuring. This finding suggests that each hypothesis category explains different sources of variance although there is considerable overlap. Figure 2 depicts the model as it was tested.

Board involvement model. The second model tested in this study attempted to examine the effect of the aforementioned factors on board involvement. The board involvement model was tested to see if some of the variance in non-board initiated restructuring could be explained. Specifically, this model can shed some light on board pressure to force restructuring. The majority of restructurings were classified as non-board initiated due to the lack CEO dismissal. This measure is rather coarse-grained and did not allow for the board to force the CEO to restructure except through dismissal. Clearly, dismissal is not the only course of action the board can take. The board also has the power to discipline or pressure for change (Fama & Jensen, 1983; Walsh & Seward, 1990). The board involvement model examines the path from

FIGURE 2

Model Tested in the Board versus Non-board Logistic Regression Analysis



board realization of a problem to the application of pressure on the CEO to restructure. Figure 3 presents the model of board involvement.

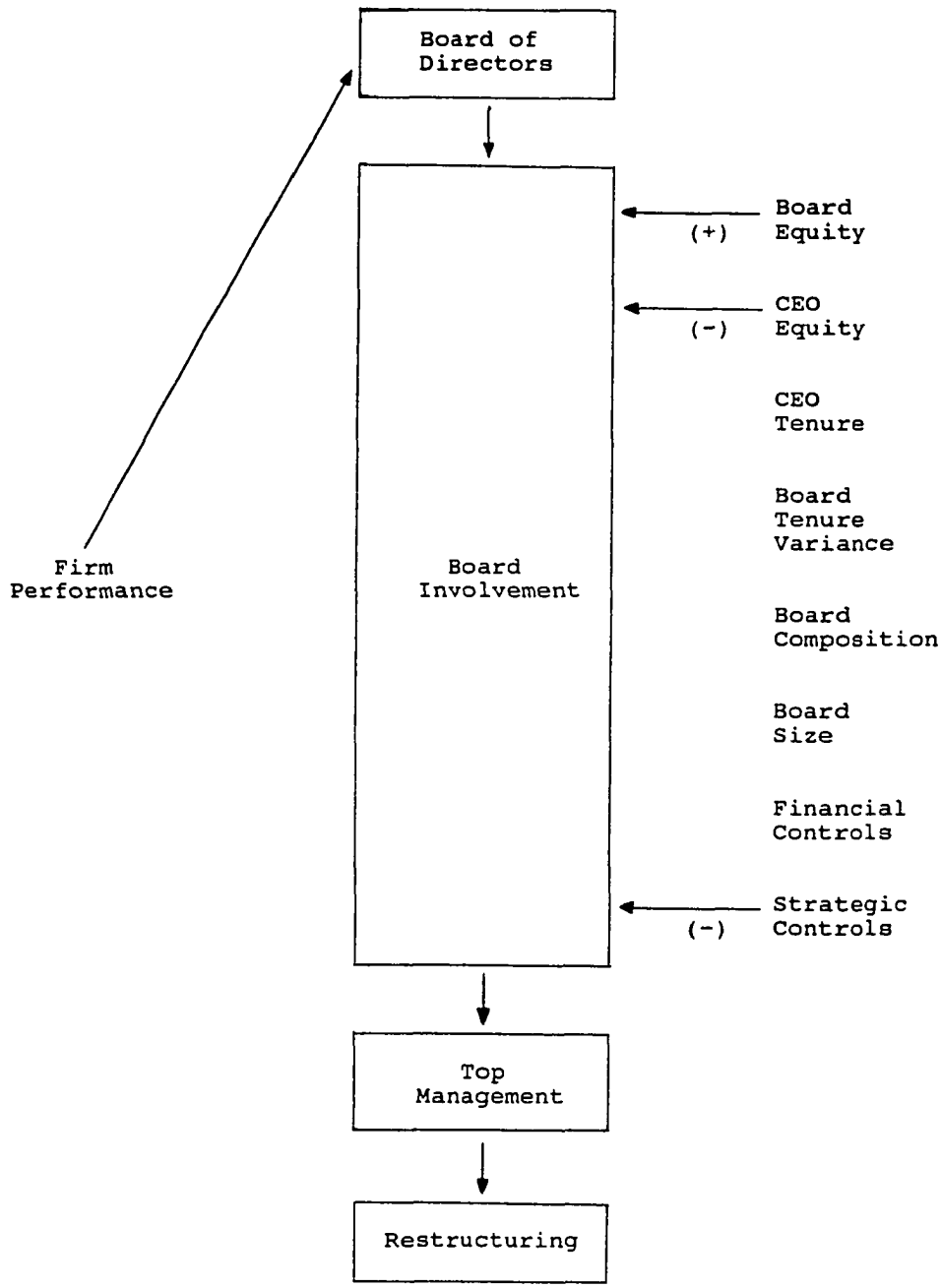
The model is also based on the link between performance and restructuring, though in this case it is the board that is reacting to the stimulus. The model uses the same hypothesized relationships as the board versus non-board model. This model also pertains to "manager" initiated restructurings, which would involve little board pressure.

Results of this model suggest that CEO equity and strategic control usage are negatively related to board involvement. This may suggest that managers will be more likely to initiate restructuring if they have some strategic control. In addition, as CEO equity holdings increase, the likelihood of board involvement decreases. As previously mentioned, this finding is consistent with the bulk of the agency theory literature. CEO tenure was not significantly related to board involvement in the main model. Board involvement, on the other hand, appears to be driven primarily by board equity holdings. This finding suggests that increased equity on the part of the board may supply increased incentives for monitoring and perhaps a more proactive stance toward involvement in strategic decisions. The lack of significance between both board composition and tenure variance and board involvement suggests that these governance devices and factors affecting governance effectiveness are not significant predictors of board involvement.

The board involvement model indicates a fairly good fit but it can be improved. A post-hoc analysis model was run to examine board

FIGURE 3

Model used to Test Board Involvement Hypotheses using Linear Regression Analysis



involvement more closely. The previously tested model included all firms that completed a useable survey (n=85) including those firms in which the CEO was dismissed. Inclusion of CEO dismissal firms makes sense in that dismissing the CEO definitely implies board involvement but some of the relationships found in the board versus non-board model may be reducing the degree of fit of the board involvement model. Specifically, board equity was found to be negatively related to board initiated restructuring. Results of a t-test of mean board equity between board and non-board restructuring firms was significant (t=2.45, $p < .05$). Running a model with board equity as a predictor of board involvement using both CEO dismissal and non-dismissal firms may not be appropriate. This may cause poorer fit because the relationship between board equity and board involvement increases to a point where CEO dismissals become apparent.

As discussed above, the test for a curvilinear relationship between board equity and board involvement was significant. By removing CEO dismissal firms from the analysis, this potential problem was eliminated and resulted in a sample containing manager initiated restructuring firms and those firms where the board used pressure to force a restructuring (non-board initiated). Results of the linear regression model are presented in Table 14. The results of the model are essentially the same as those of the main model presented in Table 11. The model is more significant (F=6.67, $p < .001$) with an R^2 of .40.

TABLE 14

Linear Regression Analysis of the Predictive Power of all Hypotheses Supported in the Individual Hypothesis Tests after Removing CEO Dismissals

Dependent Variable:	Board Involvement
N=66	Model
Independent Variables:	β-Estimate (T-Statistic)
Intercept	4.61 (3.84)***
Board Equity Ownership	8.62 (2.95)**
Market Value (CEO Equity)	-6.97 (3.43)**
Strategic Controls	-0.84 (3.92)***
Controls[1]:	
Relative Firm Performance	-0.06 (1.67)+
Firm Size	0.04 (0.24)
Level of Diversification	1.06 (1.99)+
Restructuring Category	-0.81 (1.46)
Chemical Industry	-1.25 (1.98)+
F-Statistic	6.67*** (8,66 d.f.)
R-Square	0.47
Adjusted R-Square	0.40

*** p<.001, ** p<.01, * p<.05, + p<.10.

(1) Market Performance (b=-67.32, p < .05) R^2=.48

Implications

The purpose of this study was to examine the issue of who initiates restructuring based on governance devices and controls in use before restructuring. Results of the combined models indicate that this can be done and that the models have significant explanatory power. In addition, results suggest that pre-restructuring firm performance is significantly lower in board initiated restructurings. As discussed above, a decline in firm performance may lead to restructuring. Managers have the option to restructure the firm at any time (given board approval). If top management does not take action then the board may exert pressure to force a restructuring. If top management still fails to restructure the firm or performance continues to decline, CEO dismissal becomes a viable option. Ultimately, lack of action by top management or the board may lead to action by the market for corporate control (potential owners). In this case, firm performance might be expected to decline until a takeover became a profitable exercise. A continued decline in performance may suggest that firm performance, on average, will be lower in the case of a takeover than firms restructured by top management or the board.

Implications for Theory

The proposed model presented in Chapter II suggests that three theoretical research streams may influence who initiates restructuring. Theoretical constructs were generated from agency theory, board and managerial characteristics (upper echelon theory), and internal control theory. The results of the separate models, equity ownership, board

and managerial characteristics, and internal controls explained significant levels of variance in who restructures the firm. Recall that the equity model explained 26 percent, board and managerial characteristics explained 30 percent, and internal controls explained 19 percent using logistic regression. These results suggest that a combination of all three research streams explains significantly more variance than any one theory alone. Researchers in this area may find that integration of different theories improves the explanatory power of statistical models and more importantly may lead to theory which is more rich and comprehensive. Secondly, board and managerial characteristics as operationalized are not significant predictors of board involvement. Although it is too early to say that this line of research is not applicable, it does suggest that standard operationalizations of board and managerial characteristics have less explanatory power. It may also be that for examining the question of who initiates restructuring, the operationalizations were too coarse-grained. The next section examines the limitations of the study and how these shortcomings could be addressed.

Limitations of the Study

As mentioned above, several of the operationalizations of theoretical constructs may be too coarse-grained to allow prediction of who initiates restructuring. One of the primary limitations of the study is the coarse-grained measure of who initiates restructuring. Using CEO dismissal as an indicator of board initiated restructuring is definitely unambiguous but does not allow for board pressure to force

restructuring. For example, the removal of Robert Stempel from the executive committee at GM by the board signalled increasing board involvement in GMs operations. Operationalizing board initiated restructuring as CEO dismissal forces cases of board pressure short of dismissal into the non-board initiated category. Using this dichotomous measure, there is no way to evaluate board pressure thereby lumping board pressure and manager initiated restructuring into the same category.

The use of the board involvement survey item as a dependent variable does help to differentiate board pressure from manager initiated restructuring but it may also be rather coarse-grained. The survey item requested information on board involvement in the decision to restructure but does not differentiate between types of pressure. For instance, a finer-grained measure might be structured such that multiple items were used to assess board involvement. Board involvement could involve CEO or top management team dismissals, changes in executive compensation (i.e. increase in stock options or tying compensation to stock price or market share), shuffling of top management positions by demoting executives to the divisional level and hiring new top management team members, changes in top management representation on board committees such as the compensation or nominating committees, or a shift in board composition to allow increased monitoring of top management.

Similarly, the operationalization of board composition as insiders or outsiders requires board members to be classified in one of two categories. Board members which retired from the firm or work in

subsidiaries of the firm were classified as insiders because they are associated with the firm. As discussed above, forcing board members into one of two categories may be too coarse-grained to allow prediction regarding board involvement. The important issue may be the quality of board membership and not whether they are outsiders or insiders. The aforementioned dichotomy does not allow for any determinations of board capability, rather it suggests that distinctions between classes of board members are important. Clearly, the distinction between insiders and outsiders is important when CEO dismissals are considered but this distinction does not appear to influence board pressure.

One method of assessing the quality of board members (specifically outside members) might be to use their functional backgrounds and their industry experience as indicators of board quality or capability. For instance, board members who were engineers or members of the R&D group might provide higher quality input into board discussions than board members with finance or accounting backgrounds especially in firms operating in high technology or manufacturing industries. Firms in manufacturing industries, especially those using sequential production lines might benefit from board members with production backgrounds. Similarly, outside directors with many years experience in the industry may have greater understanding of firm operations. Board pressure is more likely influenced by the ability of board members the attribute performance declines to specific problems and the degree of understanding board members have concerning firm operations as opposed to simple classifications such as insiders and outsiders.

Board tenure variance may suffer from a problem similar to board composition. The variance in board member tenure times does provide explanatory power in assessing CEO dismissal but, as discussed above, does not provide explanatory power when board involvement is evaluated. Tenure variance may not indicate the ability the board has in recommending options or attributing performance declines to specific problems, rather, it represents an indicator of a potentially political process in which CEOs may be scapegoated due to the aforementioned lack of information or ability to use it. In theory, board tenure variance suggests that differences in tenure times may decrease cohesion and groupthink and possibly the degree to which board members are beholden to the CEO (especially if they were nominated by the previous CEO). In retrospect, it might be more appropriate to use theory on group dynamics to assess the interaction between board members as opposed to their tenure times.

The research design involved a cross-sectional approach to the research question. Due to this cross-sectional approach, attributions of causality must be cautiously interpreted. For example, equity holdings by the CEO appear to decrease the need for outsider representation on the board. The theoretical explanation for this is readily apparent from agency theory but causality cannot be proven using the research design and type of data used in this research. A longitudinal approach to this question may allow causal relationships to be identified.

Lastly, common methods variance (Campbell & Fiske, 1959) may be a potential problem. The dependent variable, board involvement, and the

strategic and financial control measures were all obtained from survey items. Podsakoff and Organ (1986) argue that self-report measures of different variables often contain items similar in content thereby biasing responses. However, board involvement and the internal control measures are measuring different constructs which are not related to each other. In addition, board involvement and board versus non-board initiated restructuring are positively and significantly correlated (r=.48, p < .001). Theory would suggest that strategic control usage is negatively related to diversification, firm size, and board initiated restructuring. All three relationships were in the expected direction. In addition, strategic control usage was negatively correlated with board involvement (r=-.19, p < .10) though the correlation was not so high to suggest respondents confused board involvement with strategic controls. In fact, strategic control was more highly correlated with the objective measure of board initiated restructuring (r=-.30, p < .001). Common methods variance may be a potential problem, but the effect is probably minimal.

Implications for Future Research

Future research in this area might benefit from the findings of this study. Specifically, the coarse-grained nature of the board involvement and board composition variables could be improved upon. As discussed above, finer-grained measures of board involvement and board composition may facilitate greater understanding of the process through which the board can apply pressure to force restructuring and the ability the board has in applying the correct type of pressure. The

ability of the board to react in an efficient and timely manner may be dependent on the quality of board membership (i.e. industry experience and functional background).

The finding that firm performance is significantly lower in board initiated firms relative to non-board initiated may suggest that boards need to be more active. However, managers that emphasize strategic controls do appear to make the necessary changes prior to the need for intervention by potential owners. If boards were active to the point of reacting quickly to each problem, they could be accused of meddling. More appropriately, board members should set the compensation and control devices used in the firm and leave the strategic decisions to managers. One of the important findings of the study suggests that managerial equity and strategic control do, in fact, provide adequate incentives to force managers to restructure the firm. When these incentives and controls are absent, the role of the board becomes one of discipline or dismissal.

Results of this study suggests there is a dynamic relationship between the governance and internal control variables. For instance, as CEO equity increases, the number of outside directors decreases. Board composition is negatively related to board equity holdings. And lastly, CEO tenure is negatively related to board composition. These findings may suggest a complex interrelationship which firms can adjust to find the optimal governance structure to fit their particular situation. The CEO equity - board composition link may suggest that outside directors are brought in to increase monitoring when the CEO has a lower equity stake in the firm. That is, CEO equity may decrease

the need for board monitoring (agency theory) because the increased equity bonds managerial wealth to firm outcomes. This is consistent with research by Beatty and Zajac (1990) who found firms going through an initial public offering were more likely to increase outside directors if the CEO had a small equity stake in the firm.

Another related finding was that board equity was negatively related to board composition. This suggests that board equity provides increased incentives for monitoring and may reduce the need for additional outside directors. The primary function of outside directors would seem to be that of discipline and dismissal (in the case of restructuring firms) since they appear to have little to do with board involvement after controlling for firm size, performance, and diversification. CEO tenure is positively correlated with CEO equity and negatively associated with board composition. This suggests that equity may moderate this relationship in that CEO with long tenure periods are more likely to be dismissed unless they have substantial equity holdings. This argument is consistent with theory developed by Hambrick and Finkelstein (1987). Hambrick and Finkelstein argue that all CEO's have a certain amount of discretion which affects the latitude given to them. One of the principal factors which can increase discretion is the equity owned by the CEO.

Given that, on average, all restructuring firms experience performance declines, firm governance and internal controls could be said to be inadequate. Given the above discussion it is obvious that these relationships are indeed complex and need to be investigated more fully. Two areas in particular need to be addressed: The question of

why did firm governance prove inadequate and given that the firm restructures what process do they follow and how does that affect firm governance (board composition, equity stakes, etc.) after restructuring is completed. Regarding the first question, little empirical research has been done to examine how changes in firm governance affect the fit between firm strategy and environment and how this lack of fit effects performance. A recent paper by Goodstein and Boeker (1991) examined how changes in board composition effect strategic change. Their paper, however, focused primarily on CEO and top management team tenure and ownership but did not address board interests, ownership and other governance devices. This study illustrates the need to integrate top management team studies with research on firm governance devices to allow a more complete perspective to emerge.

In addition, future research needs to address the implications and timing of governance changes and their effect on strategic change. A longitudinal study is needed to more fully capture the long term dynamics of governance and allow causal relationships to be predicted. Event history analysis might prove particularly useful in this case because it can use yearly changes in antecedent conditions leading up to the specified event. Event history, therefore, allows the use of explanatory variables that change over time or time-varying explanatory variables (Allison, 1984). For instance, event history analysis could be used to examine governance and control attributes as well as top management and board composition changes leading up to restructuring. Given that restructuring is the result of external environmental changes, changes in predictor variables could be tracked over time and

allow a determination of the longitudinal effects on who initiates restructuring or perhaps whether restructuring is voluntary or involuntary (e.g. takeover).

The second question addresses the need for more research into how governance devices and internal controls are modified in the post-restructuring phase. Given that firm governance devices were inadequate (or the firms wouldn't need to restructure), how are they structured to eliminate the problems that put them in this situation in the first place. Hoskisson and Turk (1990) developed theory to examine similar issues but these ideas need to be tested. One of the proposed rationales for restructuring is to reassert strategic control (Hoskisson & Turk, 1990) and improve the fit between strategy, structure, and the environment (Tushman & Romanelli, 1985; Miller, 1991). Future research should examine the process of the change effort and the effectiveness of the changes on performance, innovation, and competitiveness. Corporate restructuring is a complex process which has been examined by researchers in finance, strategy, and economics. To date, the bulk of the research has focused on the market for corporate control (Jensen & Ruback, 1983) or antecedent conditions leading to strategic change. The actual process of restructuring and the effectiveness of strategy implementation has not been addressed. For instance, board initiated restructuring may lead to board imposed constraints on the new CEO. These constraints may take the form of a separation of the chairman position from the CEO position, increased outside board member representation in the post-restructuring phase, an increase in stock options to top management to increase managerial

"bonding" to firm outcomes, etc.

In addition, the strategy the firms pursues in the post restructuring may influence the nature of governance devices. For instance, firms operating in R&D intensive industries using a related diversification strategy may emphasize strategic controls, evaluations based on firm performance and make extensive use of stock options if the CEO has a small equity stake. Unrelated diversifiers might rely more on annual bonuses and divisional performance evaluations because the unrelated diversified strategy emphasizes competition between divisions.

In summary, future research might focus on finer-grained measures of board involvement and board composition. Greater understanding of how the board applies pressure and what types of pressure are most effective may increase our understanding of firm governance. Further research into the dynamic relationship between board and managerial incentives and controls and firm context may yield greater insights into the checks and balances operating within the firm. The implications and timing of governance changes and their effect on strategic change should be examined using longitudinal methodology. Causal relationships and greater understanding of the long-term implications of governance changes on the strategy-environment fit as well as firm performance would benefit from such inquiry. Finally, restructuring represents a major change in both firm strategy and structure, future research should examine the process of change and how managerial incentives and controls are modified after restructuring is completed.

Conclusion

This research advances theory on corporate restructuring by identifying factors that influence who initiates restructuring. Previous research has examined how top management characteristics affect strategic change (Goodstein & Boeker, 1991), how demographic factors relate to CEO turnover (Fredrickson, et. al., 1988; Miller, 1991), and, to some extent, what factors lead to strategic changes (e.g. Tushman & Romanelli, 1985). Recent work by Hoskisson and Johnson (1992) examined what factors trigger restructuring using a set of firms undergoing strategic refocusing. This study adds to this research by examining the degree to which firm governance and internal control devices can be used to predict who restructures the firm. This study also illustrates the need to integrate research on top management team with research examining firm governance to develop a more complete picture of the determinants of strategic change. By combining these perspectives, models in this study were able to predict significantly greater variance than any one model could predict alone.

Results of this study may suggest that managers, are, in fact, doing an adequate job of initiating change when the appropriate controls and incentives are in place. Top managements' equity stake in the firm appears to influence the decision to restructure. Similarly, equity holdings by board members may decrease the need for outsider representation on the board. Although this argument remains largely untested, it may suggest that equity provides increased incentives to monitor firm operations beyond the addition of outsiders to the board. The findings of this research suggest that outsiders may serve a

disciplinary role, but may not contribute significantly to problem solving or in setting strategic direction.

REFERENCES

Alchian, A.A. & Demsetz, H. 1972. Production, information costs, and economic organization. American Economic Review, 62: 777-795.

Aldrich, J.H. & Nelson, F.D. 1984. Linear probability, logit, and probit models. London: Sage Publications.

Alexander, G.J. and Francis, J.C. 1986. Portfolio analysis, (3rd Ed.) Englewood Cliffs, NJ: Prentice-Hall.

Allen, M.P. & Panian, S.K. 1982. Power, performance, and succession in the large corporation. Administrative Science Quarterly, 27: 438-547.

Allison, P.D. 1984. Event history analysis: Regression for longitudinal event data. Beverly Hills, CA: Sage Publications.

Allison, P.D. 1978. Measures of inequality. American Sociological Review, 43: 865-880.

Babbie, E.R. 1974. Survey research Methods. Belmont, CA: Wadsworth Publishing Company.

Bacon, J., & Brown, J.K. 1975. Corporate directorship practices: Role, selection and legal status of the board. New York: Conference Board.

Baysinger, B.D. & Butler, H.N. 1985. Corporate governance and the board of directors: Performance effects of changes in board composition. Journal of Law, Economics, and Organization, 1: 101-124.

Baysinger, B.D. & Hoskisson, R.E. 1990. The composition of boards of directors and strategic control: Effects on corporate strategy. Academy of Management Review, 15: 72-87.

Baysinger, B.D. & Hoskisson, R.E. 1989. Diversification strategy and R&D intensity in multiproduct firms. Academy of Management Journal, 32: 310-332.

Beatty, R.P. & Zajac, E.J. 1990. Top management incentives, monitoring, and risk-bearing: A study of executive compensation, ownership, and board structure in initial public offerings. Academy of Management Best Paper Proceedings 1990: 7-11.

Berle, A. & Means, G. 1932. The modern corporation and private property. New York: Macmillan.

Bettis, R.A. 1981. Performance differences in related and unrelated diversified firms. Strategic Management Journal, 2: 379-393.

Bowman, E.H. & Singh, H. 1990. Overview of corporate restructuring trends and consequences. In M.L. Rock & R.H. Rock (Eds.), Corporate restructuring: A guide to creating the premium-valued company. New York: McGraw-Hill.

Brealey, R.A. & Myers, S.C. 1988. Principles of corporate finance. New York: McGraw-Hill.

Brooks, J. 1987. The takeover game. New York: E.P. Dutton.

Brown, S.J. and Warner, J.B. 1980. Measuring security price performance. Journal of Financial Economics, 8: 205-258.

Business Week. 1992a. A wake-up call for corporate boards. April 20, 1992: 35.

Business Week. 1992b. The board revolt: Business as usual won't cut it at a humbled GM. April 20, 1992: 31-36.

Business Week. 1991. The corporate elite: Chief executives of the Business Week 1000. October 19: 61.

Business Week. 1989. Taking charge. Corporate directors start to flex their muscle. July 3: 66-73.

Business Week. 1987. The battle for corporate control. May 18: 102-109.

Byrd, J. & Hickman, K. 1991. Board of director compensation and the profitability and shareholder wealth effects of acquisitions. Working paper, Department of Management, Washington State University, Pullman, WA.

Campbell, D.T. & Fiske, D.W. 1959. Convergent and discriminant validation by the multitrait-multimethod matrix. Psychological Bulletin, 56: 81-105.

Cannella, A.A., Lubatkin, M., and Kapouch, M. 1991. Antecedents of executive selection: Additional empirical evidence. Academy of Management Best Papers Proceedings 1991: 11-15.

Carmines, E.G. & Zeller, R.A. 1979. Reliability and validity assessment. Beverly Hills, CA: Sage Publications.

Cattell, R.B. & Vogelmann, S. 1977. A comprehensive trial of the scree and KG criteria for determining the number of factors. Multivariate Behavioral Research, 12: 289-325.

Chandler, A. 1962. Strategy and structure: Chapters in the history of American industrial enterprise. Cambridge, MA: MIT Press.

Child, J. 1972. Organizational structure, environment and performance: The role of strategic choice. Sociology, 6: 1-22.

Clendenin, W.D. 1972. Company presidents look at the board of directors. California Management Review, 15: 60-66.

Coffee, J.C. 1988. Shareholders versus managers: The strain in the corporate web. In J.C. Coffee, Jr., L. Lowenstein, and S. R. Ackerman (Eds.), Knights, raiders and targets: The impact of the hostile takeover. New York: Oxford University Press.

Coughlan, A.T. & Schmidt, R.M. 1985. Executive compensation, management turnover and firm performance: An empirical investigation. Journal of Accounting and Economics, 7: 43-66.

Cyert, R.M. & March, J.G. 1963. A behavioral theory of the firm. Englewood Cliffs, NJ: Prentice-Hall.

Daft, R.L. & Macintosh, N.B. 1984. The nature and use of formal control systems for management control and strategy implementation. Journal of Management, 10: 43-66.

Dalton, D.R. & Kesner, I.F. 1985. Organizational performance as an antecedent of inside/outside chief executive succession: An empirical assessment. Academy of Management Journal, 28: 749-762.

Dann, L.Y. & DeAngelo, H. 1983. Standstill agreements, privately negotiated stock repurchases, and the market for corporate control. Journal of Financial Economics, 11: 275-300.

Davis, J.H. 1969. Group performance. Reading, MA: Addison-Wesley.

Demsetz, H. & Lehn, K. 1985. The structure of corporate ownership: Causes and consequences. Journal of Political Economy, 93: 11-55.

Dillman, D.A. 1978. Mail and telephone surveys: The total design method. New York: John Wiley & Sons.

Eisenbeis, R.A. 1977. Pitfalls in the application of discriminant analysis in business, finance, and economics. Journal of Finance, 32: 875-900.

Eisenhardt, K.M. 1985. Control: Organizational and economic approaches. Management Science, 31: 134-149.

Fama, E.F. 1980. Agency problems and the theory of the firm. Journal of Political Economy, 88: 288-307.

Fama, E.F. & Jensen, M.C. 1983. Separation of ownership and control. Journal of Law and Economics, 26: 301-325.

Finkelstein S. & Hambrick, D.C. 1989. Chief executive compensation: A study of the intersection of markets and political processes, Strategic Management Journal, 10: 121-134.

Fisher, F.M. & McGowan, J.J. 1983. On the misuse of accounting rates of return to infer monopoly profits. American Economic Review, 73: 82-97.

Fredrickson, J.W., Hambrick, D.C., & Baumrin, S. 1988. A model of CEO dismissal. Academy of Management Review, 13: 255-270.

Galbraith, J.R. & Kazanjian, R.K. 1986. Strategy implementation: Structure, systems, and processes. St. Paul, MN: West Publishing.

Geneen, H. 1984. Managing. New York: Avon Books.

Ginsberg, A. 1988. Measuring and modelling changes in strategy: Theoretical foundations and empirical directions. Strategic Management Journal, 9: 559-576.

Gomez-Mejia, L.R., Tosi, H., & Hinken, T. 1987. Managerial control, performance, and executive compensation. Academy of Management Journal, 30: 51-70.

Goodstein, J. & Boeker, W. 1991. Turbulence at the top: A new perspective on governance structure changes and strategic change. Academy of Management Journal, 34: 306-330.

Gordon, G.E. & Rosen, N. 1981. Critical factors in leadership succession. Organizational Behavior and Human Performance, 27: 227-254.

Gorsuch, R.L. 1983. Factor analysis. Hillsdale, NJ: LEA.

Gupta, A. 1987. SBU strategies, corporate-SBU relations and SBU effectiveness in strategy implementation. Academy of Management Journal, 31: 477-500.

Hackman, J.R. & Morris, G.G. 1975. Group tasks, group interaction process, and group performance effectiveness: A review and proposed integration. In L. Berkowitz (Ed.), Advances in experimental psychology: 45-99. New York: Academic Press.

Hambrick, D.C. & Finkelstein, S. 1987. Managerial discretion: A bridge between polar views of organizational outcomes. In L.L. Cummings & B.M. Staw (Eds.), Research in organizational behavior, vol 9: 396-406. Greenwich, CT: JAI Press.

Hambrick, D.C. & Mason, P.A. 1984. Upper echelons: The organization as a reflection of its top managers. Academy of Management Review, 9: 193-206.

Hannan, M.T. & Freeman, J. 1984. Structural inertia and organization change. American Sociological Review, 49: 149-164.

Helmich, D.L. 1980. Board size variation and rates of succession in the corporate presidency. Journal of Business Research, March: 51-63.

Hermalin, B. & Weisbach, M. 1988. The determinants of board composition. RAND Journal of Economics, 19: 589-605.

Hill, C.W.L. & Hoskisson, R.E. 1987. Strategy and structure in the multiproduct firm. Academy of Management Review, 12: 331-341.

Hill, C.W.L., Hitt, M.A., & Hoskisson, R.E. 1992. Cooperative versus competitive structures in related and unrelated diversified firms. Organization Science, in press.

Hirschman, A.O. 1970. Exit, voice, and loyalty: Responses to decline in firms, organizations, and states. Boston: Harvard Business School Press.

Hite, G.L., Owers, J.E., & Rogers, R.C. 1987. The market for interfirm asset sales: Partial sell-offs and total liquidations. Journal of Financial Economics, 18: 229-252.

Hitt, M.A. & Hoskisson, R.E. 1991. Strategic competitiveness. In L.W. Foster (Ed.), Advances in applied business strategy, vol. 2: 1-35. Greenwich, CT: JAI Press.

Hitt, M.A., Hoskisson, R.E., & Harrison, J.S. 1991. Strategic competitiveness in the 1990s: Challenges and opportunities for U.S. executives. Academy of Management Executive, 5: 7-22.

Hitt, M.A., Hoskisson, R.E., & Ireland, R.D. 1990. Mergers and acquisitions and managerial commitment to innovation in M-form firms. Strategic Management Journal, 11: 29-47.

Hitt, M.A., Hoskisson, R.E., Ireland, R.D. & Harrison, J.S. 1991. Effects of acquisitions on R&D inputs and outputs. Academy of Management Journal, 34: 693-706.

Hofer, C.W. 1980. Turnaround strategies. Journal of Business Strategy, 1: 19-31.

Hornik, J. 1982. Impact of pre-call request form and gender interaction on response to a mail survey. Journal of Marketing Research, 19: 144-151.

Hoskisson, R.E. & Hitt, M.A. 1988. Strategic control systems and relative R&D investment in large multiproduct firms. Strategic Management Journal, 9: 605-621.

Hoskisson, R.E. & Johnson, R.A. 1992. Corporate restructuring antecedents: Effects of strategy and governance. Paper to be presented at the Annual Meeting of the Academy of Management, Las Vegas, NV., August 9-12, 1992. (Private Collection, R. Johnson).

Hoskisson, R.E. & Johnson, R.A. 1989. Corporate restructuring and R&D intensity. Paper Presented at the Ninth Annual Strategic Management Society Conference, San Francisco, CA., October 11-14, 1989. (Private Collection, R. Johnson).

Hoskisson, R.E. & Turk, T.A. 1990. Corporate restructuring: Governance and control limits of the internal capital market. Academy of Management Review, 15: 459-477.

Hoskisson, R.E., Hitt, M.A. & Hill, C.W.L. 1991. Managerial risk aversion in diversified firms: An evolutionary perspective. Organization Science, 2: 296-313.

Hoskisson, R.E., Hitt, M.A., Johnson, R.A., & Moesel, D. 1991. Construct validity of objective (entropy and SIC count based) categorical measures of diversification strategy. Paper presented at the Annual Meeting of the Academy of Management, Miami, FL., August 11-14, 1991. (Private Collection, R. Johnson).

Huber, G.P. & Power, D.J. (1985). Retrospective reports of strategic-level managers. Strategic Management Journal, 6: 171-180.

Jacquemin, A.P. & Berry, C.H. (1979). Entropy measure of diversification and corporate growth. Journal of Industrial Economics, 27: 359-369.

Jaeger, A.M. & Baliga, B.R. 1985. Control systems and strategic adaptation. Strategic Management Journal, 6: 115-134.

Jain, P.C. 1985. The effect of voluntary sell-off announcements on shareholder wealth. Journal of Finance, 40: 209-224.

Janis, I.L. 1982. Groupthink. Boston: Houghton-Mifflin.

Jarrell, G.A., Brickley, J.A. & Netter, J.M. 1988. The market for corporate control: The empirical evidence since 1980. Journal of Economic Perspectives, 2: 49-68.

Jensen, M.C. 1988. The takeover controversy: Analysis and evidence. In J.C. Coffee, Jr., L. Lowenstein, and S. R. Ackerman (Eds.), Knights, raiders and targets: The impact of the hostile takeover. New York: Oxford University Press.

Jensen, M.C. 1986. The takeover controversy: Analysis and evidence. Midland Corporate Finance Journal, 4: 6-32.

Jensen, M.C. & Meckling, W.H. 1976. Theory of the firm: Managerial behavior, agency costs, and ownership structure. Journal of Financial Economics, 3: 305-350.

Jensen, M.C. & Ruback, R.S. 1983. The market for corporate control: The scientific evidence. Journal of Financial Economics, 11: 5-50.

Jensen, M.C. & Warner, J.B. 1988. The distribution of power among corporate managers. Journal of Financial Economics, 20: 3-24.

Jobson, J.D. and Korkie, B.M. 1981. Performance hypothesis testing with the Sharpe and Treynor measures. Journal of Finance, 36: 889-908.

Johnson, R.A., Hoskisson. R.E. & Margulies, N. 1990. Corporate restructuring: Implications for organization change and development. In W.A. Pasmore & R.W. Woodman (Eds.), Research in organization change and development, vol 4: 141-166. Greenwich, CT: JAI Press.

Katz, R. 1982. Project communication and performance: An investigation into the effects of group longevity. Administrative Science Quarterly, 27: 81-104.

Kiesler, S. and Sproull, L. 1982. Managerial response to changing environments: Perspectives on problem sensing from social cognition. Administrative Science Quarterly, 27: 548-570.

Kim, J. & Mueller, C.W. 1978. Factor analysis: Statistical methods and practical issues. Beverly Hills, CA: Sage Publications.

Kosnik, R.D. 1990. Effects of board demography and directors' incentives on corporate greenmail decisions. Academy of Management Journal, 33: 129-150.

Kosnik, R.D. 1987. Greenmail: A study of board performance in corporate governance. Administrative Science Quarterly, 32: 163-185.

Kusewitt, J.B. 1985. An exploratory study of strategic acquisition factors relating to performance. Strategic Management Journal, 6: 151-169.

Lamont, B.T. & Anderson, C.R. 1985. Mode of corporate diversification and economic performance. Academy of Management Journal, 28: 926-933.

Lorange, P. 1980. Corporate planning: An executive viewpoint. Engelwood Cliffs, NJ: Prentice-Hall.

Mace, M.L. 1971. Directors: Myth and reality. Boston: Harvard Business School Press.

Malatesta, P.H. & Walkling, R.A. 1988. Poison pill securities: Stockholder wealth, profitability, and ownership structure. Journal of Financial Economics, 20: 347-376.

Manne, H. 1965. Mergers and the market for corporate control. Journal of Political Economy, 73: 110-120.

Marris, R. 1964. The economic theory of managerial capitalism. London: Macmillan.

McEachern, W. 1975. Managerial control and performance. Lexington, MA: Heath.

McGrath, J.E. 1984. Groups: Interaction and performance. Englewood Cliffs, NJ: Prentice-Hall.

Meindl, J.R., Ehrlich, S.B., & Dukerich, J.M. 1985. The romance of leadership. Administrative Science Quarterly, 30: 78-102.

Miles, R.H. & Cameron, K.S. 1982. Coffin nails and corporate strategy. Engelwood Cliffs, NJ: Prentice-Hall.

Miller, C.E. & Komorita, S.S. 1987. Coalition formation in organizations: From the laboratory to the real world. In M.H. Bazerman, B.H. Sheppard, & R.H. Lewicki (Eds.), Research on negotiations in organizations, vol.1: 43-61. Greenwich, CT: JAI Press.

Miller, D. 1991. Stale in the saddle: CEO tenure and the match between organization and environment. Management Science, 37: 34-52.

Miller, D. & Friesen, H. 1984. Organizations: A quantum view. Engelwood, NJ: Prentice-Hall.

Mitchell, S.K. 1979. Interobserver agreement, reliability, and generalizability of data collected in observational studies. Psychological Bulletin, 86: 376-390.

Mizruchi, M.S. 1983. Who controls whom? An examination of the relation between management and boards of directors in large American corporations. Academy of Management Review, 8: 426-435.

Montgomery, C.A. 1982. The measurement of firm diversification: Some new evidence. Academy of Management Journal, 25: 299-307.

Morck, R., Schleifer, A. & Vishny, R.W. 1989. Alternative mechanisms for corporate control. American Economic Review, 79: 842-852.

Morck, R., Schleifer, A. & Vishny, R.W. 1988. Management ownership and market evaluation: An empirical analysis. Journal of Financial Economics, 20: 293-317.

Nadler, D.A. & Tushman, M.L. 1989. Leadership for organizational change. In A.M. Mohrman, Jr., S.A. Mohrman, G.E. Ledford, Jr., T.G. Cummings, E.E. Lawler III (Eds.), Large-scale organizational change. San Francisco: Jossey-Bass.

Nunnally, J.C. 1978. Psychometric theory. New York: McGraw-Hill.

Nunnally, J.C. 1964. Educational measurement and evaluation. New York: McGraw-Hill.

O'Keefe, T.B. & Homer, P.M. 1987. Selecting cost-effective survey methods: Foot-in-door and prepaid monetary incentives. Journal of Business Research, 15: 365-376.

O'Reilly, C.A., Caldwell, D.F., & Barnett, W.P. 1989. Work group demography, social integration, and turnover. Administrative Science Quarterly, 34: 21-37.

Palepu, K. 1985. Diversification strategy, profit performance, and the entropy measure. Strategic Management Journal, 6: 239-255.

Patton, A. & Baker, J.C. 1987. Why won't directors rock the boat. Harvard Business Review, 65: 10-18.

Pfeffer, J. 1985. Organizational demography: Implications for management. California Management Review, 28(1): 67-81.

Pfeffer, J. 1983. Organizational demography. In L.L. Cummings & B.M. Staw (Eds.), Research in organizational behavior, vol 5: 299-357. Greenwich, CT: JAI Press.

Pfeffer, J. 1972. Size and composition of corporate boards of directors: The organization and its environment. Administrative Science Quarterly, 17: 218-228.

Pfeffer, J. & Salancik, G.R. 1978. External control of organizations: A resource dependence perspective. New York: Harper & Row.

Podsakoff, P.M. & Organ, D.W. 1986. Self-reports in organizational research: Problems and prospects. Journal of Management, 12: 531-544.

Porter, M.E. 1987. From competitive advantage to corporate strategy. Harvard Business Review, 65(3): 43-59.

Press, S.J. & Wilson, S. 1978. Choosing between logistic regression and discriminant analysis. Journal of the American Statistical Association, 73: 699-705.

Priem, R.L. 1990. Top management team group factors, consensus, and firm performance. Strategic Management Journal, 11: 469-478.

Ravenscraft, D.J. & Scherer, F.M. 1987. Mergers, sell-offs and economic efficiency, Washington D.C.: The Brookings Institution.

Rothwell, R. 1984. The role of small firms in the emergence of new technologies. Omega, 12: 19-29.

Salancik, G.R. 1977. Commitment and control of organization behavior and belief. In B.M. Staw & G.R. Salancik (Eds.), New directions in organizational behavior: 1-54. Chicago: St. Clair Press.

Salter, M. & Weinhold, W. 1980. What lies ahead for merger activities in the 1980s. Journal of Business Strategy, 1: 66-99.

Scherer, F.M. 1990. Industrial market structure and economic performance (3rd Ed.). Boston: Houghton-Mifflin.

Schleifer, A. & Vishny, R.W. 1986. Large shareholders and corporate control. Journal of Political Economy, 95: 461-488.

Schmidt, P. & Strauss, R.P. 1975. The prediction of occupation using multiple logit models. International Economic Review, 16: 471-486.

Shrout, P.E. & Fleiss, J.L. 1979. Intraclass correlations: Uses in assessing rater reliability. Psychological Bulletin, 86: 420-428.

Sicherman, N.W. & Pettway, R.H. 1987. Acquisition of divested assets and shareholder wealth. Journal of Finance, 52: 1261-1273.

Simmonds, P.G. 1990. The combined diversification breadth and mode dimensions and the performance of large diversified firms. Strategic Management Journal, 11: 399-410.

Smiley, R. 1976. Tender offers, transactions costs and the theory of the firm. Review of Economics and Statistics, 58: 22-32.

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

Taylor, W. 1990. Can big owners make a difference? Harvard Business Review, 68(5): 70-82.

Turk, T.A. 1992. The economic incentives of top executives and tender offer resistance: A test of the implications of agency theory for strategic management. Working paper, Department of Management, Texas A&M University, College Station, TX.

Turk, T.A. & Baysinger, B.D. 1992. Environmental factors affecting corporate strategy: Taxes, antitrust policy, and corporate restructuring. Working paper, Department of Management, Texas A&M University, College Station, TX.

Turk, T.A., Harrison, J.S., & Hoskisson, R.E. 1992. Merger performance in the 1980s: The effect of taxes and antitrust enforcement. Working paper, Department of Management, Texas A&M University, College Station, TX.

Tushman, M.L. & Romanelli, E. 1985. Organizational evolution: A metamorphosis model of convergence and reorientation. In L.L. Cummings & B. Staw (Eds.), Research in organizational behavior, vol 7: 171-222. Greenwich, CT: JAI Press.

Vance, S.C. 1983. Corporate leadership: Boards, directors and strategy. New York: McGraw-Hill.

Vancil, R.F. 1987. Passing the baton: Managing the process of CEO succession. Boston: Harvard Business School Press.

Vancil, R.F. 1979. Decentralization: Managerial ambiguity by design. Homewood, IL: Dow Jones-Irwin.

Wagner, W.G., Pfeffer, J. & O'Reilly, C.A. 1984. Organizational demography and turnover in top management groups. Administrative Science Quarterly, 29: 74-92.

Walkling, R.A. & Long, M.S. 1984. Agency theory, managerial welfare and takeover bid resistance. Rand Journal of Economics, 15: 54-68.

Wall Street Journal. 1992. Who's on first at the No. 1 auto maker? April 8: B1.

Wall Street Journal. 1991. More chief executives are being forced out by tougher boards. June 6: A10.

Wall Street Journal. 1990a. Honeywell's spinoff, Alliant Techsystems, sees immediate profit. October 1: A1.

Wall Street Journal. 1990b. Bull HN to purchase Honeywell subsidiary. August 9: A2.

Wall Street Journal. 1990c. P&G to buy some assets of American Cyanamid Co. June 14: A10.

Wall Street Journal. 1985. Surge in restructuring is profoundly altering much of U.S. industry. August 12: A10.

Walsh, J.P. & Kosnik, R.D. 1991. Corporate raiders and their disciplinary role in the market for corporate control. Paper presented at the Eleventh Annual Strategic Management Society Meeting, Toronto. (Private Collection, R. Johnson).

Walsh, J.P. & Seward, J.K. 1990. On the efficiency of internal and external corporate control mechanisms. Academy of Management Review, 15: 421-458.

Warner, J.B., Watts, R.L. & Wruck, K.H. 1988. Stock prices and top management changes. Journal of Financial Economics, 20: 461-492.

Weidenbaum, M.L. 1984. The director as a cultivator of management. Directors & Boards, 9: 27-29.

Weisbach, M.S. 1988. Outside directors and CEO turnover. Journal of Financial Economics, 20: 431-460.

Wiersema, M.F. & Bantel, K.A. 1992. Top management team demography and corporate strategic change. Academy of Management Journal, 35: 91-121.

Williams, J.R., Paez, B.L., & Sanders, L. 1988. Conglomerates revisited. Strategic Management Journal, 9: 403-414.

Williamson, O.E. 1970. Corporate control and business behavior. Englewood Cliffs, NJ: Prentice-Hall.

APPENDIX

SURVEY ITEMS USED IN THE DISSERTATION

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1. Reasons for Corporate Restructuring:
This question is designed to elicit information regarding the major motivations for restructuring.

	Important						Unimportant
Board of Directors	1	2	3	4	5	6	7

2. Strategic Controls:
This question is designed to elicit information on the type of corporate systems used by the head office to exercise control over subunit (division, subsidiary, etc.) strategic initiatives.

		Important						Unimportant
a.	Face-to-face meetings ..... between Headquarters and subunit personnel.	1	2	3	4	5	6	7
b.	Informal face-to-face ..... meetings between Headquarters and subunit personnel.	1	2	3	4	5	6	7
c.	Subjective strategic ..... criteria such as attributes of marketing strategy internal to the business unit.	1	2	3	4	5	6	7
d.	Objective strategic ..... criteria such as return on investments.	1	2	3	4	5	6	7
e.	Formal reports from ..... management information systems received by headquarters.	1	2	3	4	5	6	7

3. Financial Controls:
The degree to which the following financial criteria are used to evaluate managers performance.

		Important						Unimportant
a.	Return on investment ..... such as return on assets (ROA), return on invested capital (ROIC).	1	2	3	4	5	6	7

		Important						Unimportant
b.	Cash flow	1	2	3	4	5	6	7
		Important						Unimportant
c.	Market share.....	1	2	3	4	5	6	7
		Important						Unimportant
d.	Revenue Growth.....	1	2	3	4	5	6	7
		Important						Unimportant
e.	Comparative stock price....	1	2	3	4	5	6	7

4. Changes in Control Systems:
Please indicate the extent to which the emphasis on control systems has changed over the last five years.

		Increased Emphasis						Decreased Emphasis
a.	Use of strategic controls..	1	2	3	4	5	6	7
		Increased Emphasis						Decreased Emphasis
b.	Use of financial controls..	1	2	3	4	5	6	7

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