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Antitakeover amendments as alternatives to costly signalling

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The Ohio State University, 1990
ANTITAKEOVER AMENDMENTS AS ALTERNATIVES TO COSTLY SIGNALLING

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Graduate School of the Ohio State University

by

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To my wife, I offer my gratitude for the support and understanding you provided. To my family, my thanks for never showing doubt that I would succeed.
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CHAPTER I
INTRODUCTION

The large number of mergers and acquisitions in the decade of the 1980's has generated a great deal of interest in the takeover defenses employed by target firms. Among these defenses are so-called "antitakeover" amendments to corporate charters and by-laws. Proposed by management and approved by stockholders, antitakeover amendments increase the bidder's cost in the event of a takeover. Whether an amendment is beneficial or detrimental to the adopting firm is a subject of controversy.

Proponents of antitakeover amendments, most notably the managers of firms that are potential targets, argue that target stockholders are at a disadvantage in a takeover. The bidder may have information the target firm is undervalued by the market. Management also has the information, but is unable to convey it to the target's stockholders. Target stockholders will then accept a bid that is lower than they would require if they had the same information as the bidder. Alternatively, the bidder may take advantage of the barriers caused by the high costs of collusion among diffuse target stockholders to gain control of the firm for a lower value than had target stockholders colluded to negotiate as a block. An antitakeover amendment eliminates
the bidder’s advantage by forcing the bidder to pay more for the target either through negotiations with management or in a tender offer to target stockholders.

Opponents of the amendments argue that the takeover market has a disciplinary effect on management. Management that does not perform in the best interests of the firm’s stockholders is ousted in favor of managers who will. By making a takeover more difficult, an antitakeover amendment decreases the disciplinary pressure on management. Decreased disciplinary pressure reduces the incentive for management to work in the best interests of the firm’s stockholders.

These opposing views have given rise to three questions that have been examined in the financial literature. 1) Why does management propose an antitakeover amendment? 2) Why do stockholders support or oppose the amendment? 3) What effect does an amendment have on the value of the firm? As explained in Chapter II, no satisfactory answers have been found for these questions.

This paper proposes answers to these questions that are not entirely consistent with the arguments of either proponents or opponents of antitakeover amendments. The answer to the first question is that management proposes an amendment either in the best interests of the firm’s stockholders or to reduce the disciplinary pressure of the takeover market. Stockholders then
support or oppose the amendment based upon their assessment of management's intent. Some stockholders are assumed to be less informed than others, and therefore less adept at determining management's intent. An amendment proposed by management seeking to reduce disciplinary pressure is approved if a sufficient number of less informed stockholders are present and mis-assess management's intent. In this case, the effect on the value of the firm, determined by a price set by informed investors, is expected to be negative as management avails themselves of the opportunity to pursue their own interests at the expense of stockholders. However, all stockholders vote in favor of an amendment when they assess management's intent as being to protect stockholders' interests in the event of a takeover. When this consensus is reached the effect on firm value is positive.

The answers to the three questions posed above, then, depend on the firm being considered.

This dissertation proceeds as follows. Chapter II begins by presenting brief descriptions of the most common antitakeover amendments. The chapter then closes with explanations of the Stockholders' Interests Hypothesis and the Managerial Entrenchment Hypothesis, the two hypotheses used in previous studies of antitakeover amendments. Chapter III then presents a review of the financial literature addressing the proposal of antitakeover amendments in the context of these two hypotheses.
The proposed alternative to these hypotheses is the Imperfect Information Hypothesis developed in Chapter IV. Chapter V identifies the testable implications of this hypothesis concerning managerial objectives. Once the implications are identified, appropriate testing procedures are developed. Then, the collection of the necessary data is described. Summary statistics for firms proposing antitakeover amendments are presented in Chapter VI. Included in the chapter is information on size, profitability, distribution of equity ownership, and composition of the boards of directors. Empirical results of the tests of the implications of managerial objectives are presented in Chapter VII. Chapters VIII and IX, respectively, develop and test the implications of the imperfect information hypothesis concerning the change in firm equity value on proposal of an antitakeover amendment. The final chapter contains a summary and concluding remarks.
Some material is common to most studies of antitakeover amendments. This common material is more easily and concisely presented as a whole than in a piecemeal fashion as each part becomes pertinent to a specific study. For ease and clarity of presentation, then, this chapter serves to present background material for the review of related studies on antitakeover amendments presented in Chapter III.

Material common to studies of antitakeover amendments includes descriptions of the most prevalent antitakeover amendments as well as explanations of the two general hypotheses that engender the views of the amendments' proponents and opponents. These hypotheses are, respectively, those of stockholders' interests and managerial entrenchment. The hypotheses are addressed following a brief description of the antitakeover amendments included in most or all of the studies.

A. Descriptions of Antitakeover Amendments.

Previous studies have primarily considered the four most often proposed types of antitakeover amendments. They are classified (staggered) board, preferred stock, fair-price and
supermajority amendments. Although any of the amendments may be proposed alone, two or more are usually proposed at the same time. Therefore, the different types of amendments are not perfect substitutes. The exception is that fair-price and supermajority amendments are not proposed together. Fair-price amendments usually have supermajority requirements among their provisions, making the proposal of a supermajority amendment unnecessary. The provisions of neither classified board nor preferred stock amendments duplicate those of any other amendment.

A classified or staggered board of directors is one for which all members do not stand for election simultaneously. The directors are divided into approximately equal groups (classes) with staggered terms of office. The most common procedure is to elect one-third of the firm's directors to a three year term each year. A classified board amendment sets the number of directors to stand at each election as well as specifying the length of the directors' terms of office. An additional provision is often included that allows directors only to be removed for cause.

The antitakeover capabilities of a classified board stem from the length of time required to replace incumbent management. Assume the common situation in which one-third of the board is elected each year to a three year term and directors can only be removed for cause. Even if a bidder gains controlling interest
in the firm, that is, the bidder controls a majority of the firm's voting shares, two elections are required to oust a majority of the incumbent directors from the board. The directors of a target firm with a classified board deter a takeover by refusing either to carry out the policies of the bidder or to relinquish their seats on the board in the event the bidder gains controlling interest in the firm. Alternatively, the same directors facilitate a takeover by cooperating with the bidder. The ability to either deter or facilitate a takeover gives the board of directors a strong negotiating position to be used at their discretion. The proposal of a classified board amendment is, then, a request by management for discretionary negotiating powers. Approval of the amendment by the firm's stockholders is a delegation of those powers from stockholders to management.

Despite the obvious antitakeover characteristics of a classified board, management often does not refer to an amendment authorizing such a board as an antitakeover defense. A common reason given by management to justify the need for a classified board is that it provides continuity. With staggered terms of office the firm will never find itself with a board composed entirely of new members unfamiliar with the workings of the firm. To the extent that this argument is credible, a classified board amendment is not entirely an antitakeover defense. The effect on
the market's valuation of a proposed classified board amendment is not, therefore, entirely due the antitakeover characteristics.

A strong case is usually made by management for the need for a preferred stock amendment for reasons other than as an antitakeover defense. In fact, the primary rationale for the amendment is to provide management with flexibility in funding decisions, not to authorize a defensive measure. The amendment grants management the right to issue preferred stock up to a specified maximum number of shares, and to set voting and conversion rights for those shares. Management claims their ability to issue stock and set rights allows flexibility in funding decisions that results in lower costs to the firm, a credible argument if the delay caused by gaining shareholder approval for each issue is costly. However, the same provisions of the amendment that provide flexibility also enable management, at their discretion, to enact a stringent antitakeover defense called a "poison pill" without further recourse to shareholder approval. This specific type of poison pill is an issue of preferred stock with special voting or conversion rights that dramatically increase the cost of a takeover to the bidder. Special voting rights in the form of multiple votes per share require the bidder to buy additional voting shares to gain control of the target firm. Special conversion rights allow the holders to convert their shares on terms unfavorable to the
bidder in the event the bidder gains control of the target. The discretionary power to enact such a defense gives target management a strong negotiating position in a takeover attempt, as well as a strong capability to defeat an offer they oppose.

Management, then, often provides rationale for classified board and preferred stock amendments other than as defensive measures. Classified board and preferred stock amendments also provide a target firm's management with discretionary powers with which to negotiate or oppose a takeover. In these ways classified board and preferred stock amendments differ from fair-price and supermajority amendments.

Management does not provide a rationale for the proposal of fair-price and supermajority amendments other than that they are unambiguously meant to be used as antitakeover defenses. Additionally, fair-price and supermajority amendments do not inherently grant discretionary powers to management unless a board-out clause is specifically included, as is usually the case. A board-out clause stipulates that the target firm's board of directors can suspend the antitakeover provisions of an amendment if a sufficient number of the firm's directors favor acceptance of a bid. A fair-price or supermajority amendment that contains a board-out clause provides target management with a strong bargaining position in the event of a takeover. Without the clause the antitakeover provisions of the amendment cannot be
suspended. The criteria set by the antitakeover amendment become the minimum requirements for acceptance of a takeover bid. The criteria differ both between supermajority and fair-price amendments and among amendments of the same type.

A supermajority amendment requires that a bid be accepted by the holders of more than a simple majority of the voting rights of the firm's outstanding shares. The required supermajority varies by firm, but usually falls within the range of two-thirds to 80%. With few exceptions, the requirement is only in effect if the bidder is a blockholder in the target firm. Again, the size of the bidder's position that triggers the supermajority requirement varies by firm. The minimum threshold for the bidder's initial position to trigger the supermajority requirement most commonly is set at some value between 5% and 20% of the firm's outstanding shares. A takeover bid made by any blockholder in the firm with holdings greater than or equal to the minimum threshold must be accepted by the specified supermajority. Only a simple majority is required to accept a bid made by a bidder holding fewer shares than the minimum threshold. These provisions are similar to the ones found in fair-price amendments, but fair-price amendments offer the bidder an alternative set of acceptance criteria.

A fair-price amendment allows a bidder to circumvent any supermajority requirement by offering a specified minimum price
per target share. On rare occasions the minimum price is a pre-determined dollar value stated in the amendment. However, the great majority of fair-price amendments let recent trading activity set the minimum. An example is setting the minimum equal to the highest value the bidder has paid for any of the target firm's shares prior to initiation of the bid. A second example is setting the minimum equal to the highest value at which the target's shares have traded within the year prior to the bid. Only a simple majority of the target's outstanding voting shares is required to accept a bid that meets or exceeds the minimum price criteria.

Either the minimum price or supermajority criterion can be the binding constraint on a bid. If the minimum price is set by past trading activity and the stock is currently trading at a high, any premium offered by the bidder exceeds the minimum price. The supermajority criterion is not binding. If the stock is trading at a low, the bidder may find meeting the supermajority criterion is the less costly alternative.

B. Discussions of the Stockholders' Interests and Managerial Entrenchment Hypotheses.

The discussion now turns to two general hypotheses that seek to explain why management proposes an antitakeover amendments, why the amendment is approved by stockholders, and what the effect of the amendment is on the value of the firm. The
The views of proponents of antitakeover amendments are consistent with the stockholders' interests hypothesis. In general, the hypothesis states that management proposes an antitakeover amendment in the best interests of the firm's incumbent stockholders. That is, the enactment of an antitakeover amendment maximizes the value of the firm to incumbent stockholders. An underlying assumption of this hypothesis is that the interests of management are aligned with those of the firm's stockholders through some means such as a compensation package. Two specific forms of the hypothesis are now presented. The first form assumes management's interests are already aligned with those of stockholders. The second form presents an antitakeover amendment as a means of aligning the disparate interests.

Diffuse equity ownership of a publicly held corporation makes the passage of information among stockholders difficult, time-consuming and costly. These barriers to collusion put target stockholders at a disadvantage in a takeover because they cannot negotiate as a block without incurring higher costs than are warranted by the potential benefits. A bidder takes advantage of diffuse target ownership by making a front-end loaded (two-tiered) offer. The front-end (first tier) is a high
premium bid for controlling interest in the firm. The premium for this bid is higher than what would be realized by target stockholders if they negotiated as a block. The back-end (second tier) is for the remainder of the firm's shares at a lower premium than is offered for the front-end. The total premium paid if the bid succeeds is less than the premium required to take over the target if target stockholders had been able to negotiate as a block. Target stockholders now face a prisoner's dilemma situation.

If all target stockholders reject the initial bid, the bidder is forced to raise the price to gain control. Overall, the target stockholders are made better off by tacitly negotiating as a block. An incentive for an individual shareholder to cheat, however, comes from the opportunity to gain the higher premium of the front-end bid by accepting the offer if other stockholders do not tender their shares. Individual stockholders also know that other stockholders have the same incentive to cheat. If a sufficient number of stockholders try to capture the front-end premium, the bidder gains control of the firm and all target stockholders who did not accept the bid are forced to accept the lower back-end premium. Bids are commonly structured so that, if all target stockholders accept the offer, each stockholder receives the front-end premium for the specified proportion of shares and the back-end premium for the remaining
shares. For example, a bidder offers $5 per share for 50% of the firm and $4 per share for the remainder. If all stockholders tender, each stockholder receives $5 for 50% of his/her shares and $4 for the remainder. The target stockholders end up with less than if they had been able to negotiate as a block. The bid is coercive in that target stockholders are impelled by a combination of the incentive to cheat and their reluctance to be left with the back-end premium to accept an offer that is not in their best interests. The bidder has an advantage when target stockholders cannot negotiate as a block.

Any means of negating the bidder's advantage is in the target stockholders' best interests. One such means is an antitakeover amendment. As explained earlier, stockholders can delegate to management the power to effectively negotiate a higher premium by approving an antitakeover amendment. An underlying assumption of this delegation of power is that management will work in the best interests of the firm's incumbent stockholders.

The second specific version of the stockholders' interests hypothesis is simpler than the first. Management requires job security in order to perform the tasks required in their positions. If an antitakeover amendment is the means of supplying job security to management at the least cost to stockholders, the amendment is in the stockholders' best
interests. An antitakeover amendment, then, is a means of aligning the interests of management with those of stockholders.

The first two questions posed in the introduction were "Why does management propose an antitakeover amendment?" and "Why do stockholders support or oppose the amendment?". These questions have now been answered in the context of the stockholders' interests hypothesis. Management proposes an antitakeover amendment because they are working in the best interests of the stockholders. In the first specific version of the hypothesis, the interests of management are not considered. In the second version, the alignment of management's and stockholders' interests allow the two groups to agree on a course of action. In both versions the best interests of the firm's stockholders are served by approval of the amendment. The only question remaining to be answered concerns the effect of the amendment on the value of the firm. The effect is the opposite of what is expected under the managerial entrenchment hypothesis.

The answer to the third question posed in the introduction is intuitive. Under the stockholders' interests hypothesis, approval of the antitakeover amendment is in the best interests of the stockholders. That is, the amendment maximizes the stockholders' value of the firm. Therefore, the answer to the third question is that approval of an antitakeover amendment increases the value of the firm to incumbent stockholders. This
answer and the answers for the two preceding questions are in contrast to the answers supplied by the managerial entrenchment hypothesis.

The managerial entrenchment hypothesis proposed by Cary (1969) and Williamson (1975) states that management derives benefits from control of the firm. Management values these benefits and protects them when possible at the expense of the firm's stockholders. That is, when faced with a choice of either increasing the value of the firm's equity or protecting management's benefits, management protects their own benefits unless constrained to do otherwise. The cost to stockholders is the foregone increase in equity value. Managerial entrenchment is the result of a mis-alignment of management's interests with those of stockholders.

The market for corporate control constrains management from placing management's concerns ahead of those of the firm's stockholders. Under the improved management hypothesis proposed by Manne (1965), management that does not work in the best interests of the firm's stockholders is ousted in a takeover. Management counters this threat to their benefits of control by adopting defenses (entrenching) against a disciplinary takeover. One such defense is an antitakeover amendment.

The provisions of an antitakeover amendment allow management to forestall or defeat a takeover attempt by increasing the
bidder's costs of a takeover. As the bidders' costs rise, the probability decreases that a successful bid results in a positive gain to the bidder. Therefore, assuming a bidder requires a positive gain as an incentive to bid, the probability of a takeover decreases as the bidder's costs increase. Management's benefits of control are more secure, but target stockholders lose the premium they would receive in a successful takeover.

The answer to the question of why management proposes an antitakeover amendment is, then, straightforward. They are entrenching. However, the question of shareholder approval does not have quite as straightforward an answer. Approval of an amendment by stockholders entails stockholders inflicting unnecessary costs on themselves. This conduct by a rational shareholder is counter-intuitive.

DeAngelo and Rice (1983) suggest an explanation. If stockholders are rational they will not approve an antitakeover amendment unless they are unaware of the cost involved. Therefore, the managerial entrenchment hypothesis requires at least some stockholders to be uninformed. Uninformed in this case refers to not having the information that an antitakeover amendment decreases the value of stockholders' equity. Uninformed stockholders know only that, in the aggregate, voting in support of management's proposals increases the value of the firm. Therefore, uninformed stockholders vote in favor of
antitakeover amendments proposed by management. Informed stockholders, on the other hand, are those stockholders who know the detrimental effects antitakeover amendments have on the value of stockholders' equity. Informed stockholders are assumed to be rational and vote against proposed antitakeover amendments. Management also holds shares in the firm and are obviously expected to vote in favor of their own proposal.

Approval or defeat of an antitakeover amendment depends on the ownership structure of the firm. If controlling interest in a firm is held by a combination of uninformed stockholders and management, an antitakeover amendment is approved. If controlling interest in a firm is held by informed stockholders, the proposed amendment is defeated. Since management has no incentive to propose an amendment unless approval is expected, the management of firms controlled by informed stockholders will not propose antitakeover amendments under this hypothesis.

Finally, the protection of management's benefits of control at the expense of shareholder equity decreases the value of the firm. Therefore, the effect of the amendment on the value of the firm is negative.

These explanations of the two general hypotheses, stockholders' interests and managerial entrenchment, complete the information common to most studies of antitakeover amendments.
The next chapter presents a review of the financial literature on the subject.
This chapter reviews previous studies of the motivation for and the effects on firm value of the proposal of antitakeover amendments by management. The findings of the studies are presented, their conclusions are discussed, and additional questions raised by the findings are identified. As will be shown, the evidence is not entirely consistent with either the stockholders' interests or managerial entrenchment hypothesis.

The review generally follows the chronological order in which the studies were conducted. This approach is chosen because the literature is an evolutionary process with each study building on the previous works.

The first study concerns the percentage of proposed antitakeover amendments that are approved by stockholders. Both the stockholders' interests and managerial entrenchment hypotheses have testable implications about shareholder approval of proposed antitakeover amendments. Approval under the stockholders' interests hypothesis is assured. Failure to approve a proposal is counter to the best interests of the stockholders. Therefore, failure by the stockholders of even one
firm to approve a proposal is not consistent with the stockholders' interests hypothesis. Alternatively, the outcome of the shareholder vote under the managerial entrenchment hypothesis has a degree of uncertainty attached. As stated earlier, management has no incentive to propose an antitakeover amendment if the amendment will not be approved. A combination of management and uninformed stockholders must hold controlling interest in the firm in order for the proposal to be approved. In cases where this combination holds a clear majority of votes, there is no uncertainty. The proposal is approved. In marginal cases where management cannot determine the exact ownership structure, approval of the proposal becomes uncertain. If management wrongly assumes informed stockholders are in the minority, the proposed amendment will be defeated. Therefore, defeat of some proposed amendments by shareholder vote is consistent with the managerial entrenchment hypothesis.

Linn and McConnell (1983) examine the outcome of 473 instances in the period 1960 to 1980 when at least one antitakeover amendment was proposed to stockholders. The sample was compiled from an unofficial New York Stock Exchange summary of proposed amendments. In 10 instances (2.1%) were the proposals defeated.

In a more recent study, Brickley, Lease and Smith (1988) examine the voting outcomes of 288 antitakeover amendments
proposed by 191 firms in 1984. The data is compiled by the Investor Responsibility Research Center, Inc., a nonprofit organization, directly from information supplied by the firms and from reports filed by the firms with the Securities and Exchange Commission. Brickley, Lease and Smith (1988) find that, although the great majority of the proposed amendments are approved, almost 5% are defeated.

The findings of both the Linn and McConnell, and Brickley, Lease and Smith studies are not consistent with the stockholders' interests hypothesis unless irrational stockholders are voting against their own best interests. The findings are, however, consistent with the managerial entrenchment hypothesis if management is unable to perfectly determine the percentage of informed stockholders in the firm.

Although these findings clearly favor the managerial entrenchment hypothesis over the stockholders' interests hypothesis, the evidence of the next group of studies is at best mixed and at worst not consistent with either hypothesis.

Two studies look at the effect of a proposed antitakeover amendment on the market value of a firm's equity. The studies are those of DeAngelo and Rice (1983) and Linn and McConnell. The DeAngelo and Rice sample consists of 100 New York and American Stock Exchange listed firms that proposed antitakeover amendments over the period 1974-1979. Of the 100 firms, 78 were
identified from an unofficial New York Stock Exchange summary of firms proposing charter or by-laws amendments. The remaining 22 firms were identified from a privately compiled list. Linn and McConnell use the same New York Stock Exchange summary to construct their sample 475 instances in which a firm proposed at least one antitakeover amendment. The total number of firms in the sample is 398. The difference in sample size between the two studies is explained by the much longer sampling period used by Linn and McConnell, 1960-1980. Most or all of the 78 NYSE summary identified firms in the DeAngelo and Rice study must be a sub-sample of the Linn and McConnell sample.

DeAngelo and Rice calculate cumulative average abnormal returns for four periods, with the date the proxy containing the announcement of the proposed antitakeover amendment is mailed as day (0). The periods are +2 to +40, +52 to +100, -100 to -51, and (-100 to -50 and +52 to +100). Although the signs of the cumulative average abnormal returns are negative for all periods, none are significantly different from zero. Despite the lack of significance, the authors conclude the sign of the returns is weak evidence consistent with the managerial entrenchment hypothesis. An antitakeover amendment decreases the equity value of a firm. A conclusion that is consistent with the evidence, but is not presented by the authors, is that an antitakeover amendment has no effect on the equity value of the firm. This
conclusion brings into question management's objective in proposing the amendment, but explains why stockholders are willing to approve it. Stockholders are not hurt.

Linn and McConnell reach a conclusion opposite to that of DeAngelo and Rice. Linn and McConnell calculate cumulative average abnormal returns from both daily and monthly data. They find that the returns are positive and significantly different from zero for the 90 days prior to board approval of the proposal; positive but not significantly different from zero between the board approval date and the proxy mailing date; positive and significantly different from zero between the proxy mailing date and the stockholders meeting at which the vote on the proposed amendment takes place; and positive but not significantly from zero at the 0.05 level for the 90 days following the stockholders meeting. The authors note that the positive returns leading up to the board meeting are consistent with two interpretations. The first is that management proposes an antitakeover amendment after a period in which the firm has done well. The second interpretation is that the positive returns are a result of the market's anticipation of the proposal, an interpretation also consistent with the idea that an antitakeover amendment is good for the firm. Both interpretations raise questions.
If an antitakeover amendment is in the best interests of the firm's stockholders, why does management wait until the firm is doing well before proposing one? The first interpretation is more consistent with a situation in which stockholders are uncertain about the effects of an antitakeover amendment than it is with the stockholders’ interests hypothesis. The superior performance (as measured by abnormal returns) of the firm prior to an amendment proposal can be interpreted as a signal that management is working in the best interests of the stockholders', not entrenching. Until now, no such hypothesis has been put forth that allows for shareholder uncertainty about management’s objectives.

Linn and McConnell's second interpretation raises another question. If the market anticipates that the board of directors is going to propose an antitakeover amendment, why are the returns between the proxy mailing date and the stockholders’ meeting positive and significantly different from zero? Once the board proposes the amendment there is little uncertainty as to the outcome of the vote. As shown earlier, very few proposed amendments are defeated. Linn and McConnell also find that only two of 475 proposals were withdrawn by management before they reached a vote. If the run-up in stock price prior to the board meeting is caused by anticipation of the proposal, no additional abnormal stock price changes should occur after the proposal is
made. If the market receives their first definite news of the proposal on the proxy mailing date, the stock price reaction should continue up until that date as the market anticipates the event. The evidence presented by Linn and McConnell shows that the effect does not continue past the board meeting. Although a case can be made that either period of positive returns is consistent with the idea that an antitakeover amendment is good for the firm, the contention that the market reacts twice to the same event is not convincing.

Linn and McConnell go on to find that monthly cumulative average abnormal returns are negative but not significantly different from zero for the 24 months prior to the month in which the board of directors approves the antitakeover amendment proposal. However, the average abnormal return for the month in which the board voted to submit the proposal to stockholders is positive and significantly different from zero.

Additional tests are then performed to complete the study. The changes in firm value for a subsample of firms that proposed supermajority amendments that required a supermajority to repeal or alter are similar to those for the overall sample. No significant average abnormal returns are found on the day the board approves the proposal, the proxy mailing date or the day the stockholders vote on the proposal.
The authors then draw their conclusions from the evidence. They cite the positive and significantly different from zero returns prior to the board meeting, between the proxy mailing date and stockholders meeting, and for the month of the board meeting as evidence consistent with the stockholders' interests hypothesis. They conclude that an antitakeover amendment increases the equity value of a firm and stockholders approve them for that reason. However, this conclusion is not consistent with their own finding that not all proposed antitakeover amendments receive shareholder approval.

The evidence provided by Linn and McConnell appears to be more thoroughly tested than that of DeAngelo and Rice. Linn and McConnell have a larger sample, of which much of the DeAngelo and Rice sample is a sub-sample. While both studies examine announcement effects around the proxy mailing date, Linn and McConnell also examine effects around board and stockholders meetings at which the amendments are proposed and voted upon, respectively. Finally, while DeAngelo and Rice look only at cumulative average abnormal returns calculated from daily data, Linn and McConnell use both daily and monthly data.

Antitakeover amendments and poison pills have similar characteristics. In fact, the antitakeover characteristics of a preferred stock amendment stem from the authority it gives management to adopt a poison pill. Intuitively, the similarities
suggest that the motivation behind the defenses is the same. If so, research addressing one defense is applicable to the study of the other. A comparison of the findings of studies of the two defenses is warranted.

The statistically insignificant changes in the equity value of firms proposing antitakeover amendments found by DeAngelo and Rice and the significantly positive changes found by Linn and McConnell are in contrast to the findings for poison pills. Both Malatesta and Walkling (1988) and Ryngaert (1988) find that adopting a poison pill decreases firm value. These findings for poison pills are consistent with the managerial entrenchment hypothesis. Both defenses make takeovers more difficult for the bidder. The primary difference in the two types of defenses is that antitakeover amendments require shareholder approval and poison pills do not. The difference in the market’s reaction, then, is attributable to the role of the shareholder. The market reacts as if a measure approved by stockholders does not have the same negative effect on firm value as one implemented solely by management, suggesting stockholders effectively monitor management’s proposals. In this case, even supposedly uninformed stockholders have enough information to identify proposals that are firm value decreasing.

Malatesta and Walkling (1988) also find that firms proposing poison pills have lower profitability than the average firm in
the same industry during the year prior to adoption of the poison pill. This evidence is not consistent with the positive stock price changes Linn and McConnell find prior to proposal of an antitakeover amendment. These results plus the difference in the market's reaction to the two types of defenses suggests the motivations behind the defenses are different. The remainder of this literature review addresses only studies of antitakeover amendments.

Linn and McConnell (1983) examine a sub-sample of firms that had proposed a single type of amendment, the supermajority. Jarrell and Poulsen (1987) expand on that approach by examining different types of amendments individually. They also include fair-price amendments which were not prevalent during the periods for which DeAngelo and Rice and Linn and McConnell gathered their samples.


Day (0) is the proxy signing date rather than the mailing date used by DeAngelo and Rice and Linn and McConnell. Jarrell and Poulsen find that the two dates are usually the same, but occasionally the proxy is mailed the day after it is signed.

For the overall sample of 551 firms, the mean cumulative average abnormal return is negative and significantly different from zero at the 0.05 level for the period -20 to +10. The returns for fair-price amendments alone for that period and for all other periods tested are not significantly different from zero. The sign of the returns for fair-price amendments is negative for the period -20 to +10, but positive for the shortest period tested, -1 to +1. All other types of amendments are aggregated as non-fair-price amendments. The returns for non-fair-price amendments are negative for all periods tested, but are only significantly different from zero for the period -20 to +10.

A further segmentation of the amendments into individual types reveals that only proposed supermajority amendments with board-out clauses have significantly negative effects on the equity value of the proposing firms, and then only for the two longest periods.
The Jarrell and Poulsen sample contains 372 firms listed on either the New York or American Stock Exchange, and 179 over-the-counter firms. Separating the firms into two sub-samples, the authors find that the returns are not significantly different from zero for any type of amendment proposed by exchange listed firms. Only non-exchange listed firms proposing supermajority amendments with board-out clauses have significantly negative returns, or significant returns of any kind. The small number of these firms (17) and the estimation problems caused by missing observations for over-the-counter firms bring this single significant result into question.

Jarrell and Poulsen interpret their results as being consistent with antitakeover amendments being harmful to stockholders. The significantly negative returns for the overall sample is consistent with the managerial entrenchment hypothesis.

They also conclude that the more stringent the antitakeover provisions, the more negative the effect of the amendment on the equity value of the firm. This second conclusion is based on a comparison of the average abnormal returns over the period -20 to +10 for fair-price amendments (-0.65%) with those of non-fair-price amendments (-2.95). No formal test is conducted to determine if the returns are significantly different between the two groups.
In the same study, Jarrell and Poulsen look at the equity ownership structure of firms that propose antitakeover amendments to gain insight into how amendments that decrease the firm's equity value receive shareholder approval. They find that firms proposing supermajority amendments have larger insider holdings and smaller institutional holdings than firms proposing fair-price amendments. Supermajority amendments are more restrictive than fair-price amendments, as explained earlier. The authors conclude that management needs larger holdings to pass more restrictive amendments over the opposition of informed stockholders. At the same time, the authors assume institutional investors are informed. They suggest that the fewer institutional investors there are in the firm, the less opposition management faces. Their reported results of a logit regression weakly support their conclusion. The dependent variable is 1 for firms proposing fair-price amendments and 0 for firms proposing non-fair-price amendments. The explanatory variables are insider holdings and institutional holdings. Only institutional holdings are significant, and only at the 0.10 level. The sign for institutional holdings is positive, so the larger the institutional holdings, the greater the probability the proposal is a fair-price amendment.

Jarrell and Poulsen complete their study by examining the relation between changes in firm value and ownership structure.
Using ordinary least squares, they regress cumulative average abnormal returns against insider and institutional holdings. The signs are negative for both insider and institutional holdings, but neither variable is significant. Both variables are, however, found to be significant in subsequent studies by Agrawal and Mandelker (1990), and McWilliams (1990).

Expanding on Jarrell and Poulsen, Agrawal and Mandelker (1990) examine the roles of management's and institution's shareholdings in firms proposing antitakeover amendments. The alternative hypotheses for management are, as in previous studies, stockholders' interests and managerial entrenchment. The authors suggest that there may be two types of management. One proposes an antitakeover amendment to entrench while the other seeks to maximize shareholder wealth. In aggregate, the effects of the two groups cancel out and the average change in the equity value on proposal of an amendment is insignificant. The group to which a given management belongs is dependent on the amount of the firm's equity the management holds.

The authors argue that managers holding little of the firm's equity derive most of their benefits from their human capital, that is, from their positions in the firm. A decrease in the value of the firm's equity has little effect on these managers. As the amount of the firm's equity held by management increases, the effect of a decrease in the firm's equity value offsets more
of the benefits managers derive from their positions in the firm. When management holds a sufficient number of shares they lose the incentive to entrench. This argument is similar to the alignment of interests between management and stockholders proposed by Jensen and Meckling (1976). Agrawal and Mandelker then point out that, as suggested by Jarrell and Poulsen (1987), an increase in managerial holdings also increases management's ability to pass a firm equity value decreasing antitakeover amendment over the opposition of stockholders. Therefore, the relation between managerial equity holdings and the change in firm equity value on proposal of an antitakeover amendment is not clear.

For institutions, the alternative hypotheses presented by Agrawal and Mandelker are that either institutional investors are informed and actively monitor management or they are passive and accept management's proposals. In motivating their study, the authors cite the evidence of a related study by Brickley, Lease and Smith (1988) on voting by institutions on proposed antitakeover amendments. Brickley, Lease and Smith find that the percentage of a firm's shares held by institutions that have no lines of business with the firm (pressure insensitive institutions) is positively correlated with the number of votes cast against a proposed antitakeover amendment that reduces the firm's equity value. Both Brickley, Lease and Smith, and Agrawal and Mandelker conclude this evidence is consistent with active
monitoring by institutions. What Agrawal and Mandelker do not consider is that Brickley, Lease and Smith also find evidence that some institutional investors are passive. Institutions having lines of business with the firm (pressure sensitive institutions) are not as likely to oppose an antitakeover amendment proposal that harms stockholders as are institutions without ties to the firm. The explanation presented by the authors for the difference in voting patterns is that management can severe business ties with an institution. Rather than lose the greater benefits of the business ties, pressure sensitive institutions vote with management and accept the lesser costs of reduced stock value. Agrawal and Mandelker ignore this distinction and treat institutional investors as being homogeneous.

Agrawal and Mandelker also test the active monitoring hypothesis proposed by Shleifer and Vishny (1986) wherein blockholders are suggested to have an incentive to influence the actions of management to maximize the value of stockholders' equity.

The initial sample consists of the 372 firms identified by Jarrell and Poulsen (1987) as having proposed antitakeover amendments that were listed on the New York or American Stock Exchange. Agrawal and Mandelker lengthen the event window used by Jarrell and Poulsen and find, consistent with the managerial
entrenchment hypothesis, negative cumulative average abnormal returns that are significantly different from zero for the 40 day period preceding the proxy mailing date. They find no returns for any shorter period that are significantly different from zero at the 0.05 level, but do not look beyond day +1. Therefore, their findings are not inconsistent with those of Jarrell and Poulsen who find significant and negative returns for the same sample of firms for the period -20 to +10.

Agrawal and Mandelker find no evidence that managerial shareholdings are related to the announcement effects of a proposed antitakeover amendment. The coefficient for managerial shareholdings in an ordinary least squares regression with cumulative abnormal returns as the dependent variable is positive, but not significant. In the same regression, the coefficient for institutional shareholdings is positive and significantly different from zero at the 0.01 level. Evidence is also presented that there is a positive relation between institutional blockholdings and cumulative average abnormal returns. The findings for institutions are consistent with the active monitoring hypothesis. However, the findings for managerial shareholdings, although consistent with those of Jarrell and Poulsen, are still unexplained.

McWilliams (1990) approaches the relation between announcement effects of proposed antitakeover amendments and the
level of managerial shareholdings from a perspective suggested by a model of firm value proposed by Stulz (1988). The model shows how, at date 1, the value of the firm for stockholders, \( V(a,1) \), depends on the percentage \( a \) of the firm's voting shares controlled by management.

\[
V(a,1) = \left( \frac{1}{1 + R} \right) \left[ E(y) + ip \int_{0}^{\hat{G}} P(G,a)N(P(G,a),a) \frac{dG}{G} \right]
\]

The value of the firm at a given level of \( a \) is the discounted sum of cash flows which accrue to stockholders. The discount rate \( R \) is the rate of interest. The first component of the model, \( E(y) \), is the expected cash flow accruing to stockholders with no probability of a takeover. That is, the cash flows generated strictly by the operations of the firm. The second term incorporates the probability of a takeover and the takeover premium into firm value.

The bidder's gain \( (G) \) in the event of an acquisition is assumed with probability \( p \) to be positive and uniformly distributed between 0 and a maximum \( (\hat{G}) \). \( P \) is the average premium per share offered by the bidder. \( N \) is the number of shares offered to the bidder at a given \( P \) and \( a \). Therefore, the second component of the model is the expected value of the total premium paid to the firm's stockholders if the firm is acquired, times the probability of a successful bid.
The probability that an investor bids without firm specific information is assumed to be zero. The indicator variable \( i \) takes the value of 1 if a potential bidder invests in information about the firm, and 0 otherwise.

Stulz makes two additional assumptions. First, managers protect the benefits they accrue from control of the firm by opposing all takeover bids. Second, the supply curve of shares to the bidder in a takeover is upward sloping. The second assumption stems from differing opportunity costs among investors caused by differences in tax liabilities. These assumptions produce two simultaneous, offsetting effects in the model. By withholding their shares in a takeover, management forces the bidder to offer a higher premium in order to make the bid acceptable to stockholders with higher opportunity costs. The resulting effect is to increase the expected premium in the event of a takeover, which increases the value of the firm to stockholders. At the same time, the increase in the required premium reduces the probability that the gain to the bidder is non-negative, decreasing the value of the firm. When management holds little of the firm's equity an increase in management's holdings increases the value of the firm. The increased expected premium dominates the decreased probability of a takeover. As \( a \) increases, the negative effect offsets more of the positive effect until, at high levels of \( a \), the negative effects dominate.
Stulz suggests that an antitakeover amendment has the same effect as an increase in a. If so, an antitakeover amendment increases the value of the firm for stockholders when management holds few shares, and decreases value when management holds a large number of shares. Minimum firm value occurs when management gains control of the firm, that is, 50% of the firm's equity. In aggregate, the average effect of a proposed antitakeover amendment can appear to be insignificant when significant firm specific effects occur.

The implication of a negative relation between changes in firm equity value and managerial holdings in the Stulz model is in contrast to the positive relation implied by Jensen and Meckling (1976). Jensen and Meckling suggest that as management's holdings increase, management's interests become more aligned with those of the other stockholders. Therefore, at higher levels of managerial holdings, management is more likely to take actions that increase firm equity value. Walkling and Long (1984) provide evidence, consistent with Jensen and Meckling, that the resistance of target management to a tender offer is a decreasing function of their equity holdings in the target firm. This evidence is also consistent with Stulz's model, as is shown in the following example.

Assume managers derive utility from such things as travel and office furnishings. They can either pay for these things
themselves or acquire them as perquisites through their firm.

Now assume management has discretionary control over $10 of the firm's funds. If the $10 are used for perquisites, management receives all $10 worth of utility. The $10 are then written off as an expense by the firm, creating a tax shield of $t_c$, the applicable corporate tax rate. Assume $t_c = 0.40$. The value of the firm's equity is reduced by $10(1 - t_c) = $6, with the cost accruing equally to all shares. Management derives utility from $10 worth of perquisites and loses only that portion of the $6 in costs that accrue to management's stock. Other stockholders absorb the loss accruing to their shares, but receive no benefit.

Management's alternative is to pay out the $10 in earnings and use the proceeds to acquire the perquisites. After corporate taxes, only $10(1 - t_c) = $6 remains to be distributed. Even if management holds all the firm's equity, they can only consume $6(1 - t_p)$, where $t_p$ is the personal tax rate. Managers holding none of the firm's stock receive nothing from this method. Other stockholders receive the payout accruing to their shares.

Obviously, management always prefers the first method because they derive more utility from $10 worth of perquisites than from the smaller cash payout. The other stockholders prefer the distribution of the cash as earnings. In this case, increasing managerial holdings does not bring an alignment of interests between management and stockholders.
Managers are reasonably expected to be at or near the highest personal tax bracket. Their opportunity costs are already at the extreme upper end of the supply curve for shares in a tender offer. Add the opportunity costs of the lost advantages of perquisites if management loses control of the firm and, consistent with Stulz's model, management opposes bids that are equal to or exceed the opportunity costs of all other stockholders. The two offsetting effects of the model still occur. However, relaxing Stulz's assumption that management always resists a takeover, management can be assumed to accept a bid that exceeds their opportunity costs. This event becomes more likely as the takeover premium accrues to more shares held by management, as is consistent with the findings of Walkling and Long.

McWilliams tests the implications of Stulz's model and finds evidence consistent with the model's predictions.

The McWilliams sample consists of 763 antitakeover amendments proposed from 1980 through 1984 by 325 New York or American Stock Exchange listed firms. The firms are identified from three lists. The first is the New York Stock Exchange (NYSE) unofficial list of NYSE listed firms proposing antitakeover amendments. The second is the Kidder Peabody list of NYSE, American Stock Exchange and over-the-counter firms proposing fair-price amendments. The final list is from

The mean and median values of insider equity holdings for the sample are 11.38% and 6.43%, respectively. Insiders do not have controlling interest in the representative firm proposing an antitakeover amendment. Therefore, changes in firm value are expected when an antitakeover amendment is proposed.

McWilliams examines cumulative abnormal returns over three periods. For the 40 days prior to the announcement (usually the proxy mailing) date the returns are negative but not significantly different from zero. The returns for the announcement period, which consists of the earlier of the proxy mailing date or the date of the first public announcement and the previous trading day, are insignificantly positive. Cumulative abnormal returns between the announcement date and the stockholders' meeting or report of the meeting are positive and significantly different from zero at the 0.05 level. These findings are consistent with Linn and McConnell (1983), but differ at least in part with the other studies presented here. Specifically, DeAngelo and Rice (1983), Jarrell and Poulsen (1987) and Agrawal and Mandelker (1990) find no periods with significantly positive returns.
McWilliams then tests the relation between insider (officers and directors) holdings and the change in firm equity value during the two day announcement period. For the entire sample the insider holdings variable is negative and significant at the 0.01 level. Although all insider holdings variables are negative, only those for firms proposing fair-price amendments are not significant when the sample is segmented by amendment type. This negative relation is just as predicted by the Stulz model. Even though the motivation behind the proposed amendment is to protect management's benefits of control, the proposal either increases or decreases the value of the firm dependent on management's holdings. In aggregate, the firm-specific effects cancel out and there is no net change in the value of the average firm. However, neither Jarrell and Poulsen (1987) nor Agrawal and Mandelker (1990) found this negative relation to be significant, so the body of evidence is at best only weakly consistent with the Stulz model.

Obviously, the evidence to date on whether an antitakeover amendment increase or decreases the value of a firm is not strongly consistent with either the stockholders' interests or managerial entrenchment hypothesis. The lack of consistent evidence may be attributable to the event study methods used in these studies. Eckbo, Maksimovic and Williams (1990) question whether ordinary least squares techniques can be applied to the
distributions suggested by management proposed actions. The proposal of an antitakeover amendment is not a random event. Management decides when the proposal is made. At least informed investors know whether the proposal increases or decreases firm value, so one side or the other of the distribution is truncated. Parameters estimated from truncated distributions by ordinary least squares are inconsistent. Eckbo, Maksimovic and Williams suggest that maximum likelihood estimation be used with truncated distributions.

The next study, conducted by Meulbroek, Mitchell, Mulherin, Netter and Poulsen (1990) tests a specific form of the stockholders' interests hypothesis proposed by Stein (1988) without using ordinary least squares.

Stein proposes that takeover pressure causes management to focus on short-term profits rather than on the long-term objectives that maximize firm value. Managers act myopically when they have asymmetric information about the value of the firm's assets. These managers believe that if they do not signal the true value of the firm a raider, alone among investors having the same information as management, will acquire the firm for less than the fair market value. Fair market value is defined here as the value incumbent stockholders would receive if there were no asymmetric information. Earnings provide the signal. The market's valuation of a firm depends on short-term earnings.
If short-term earnings for a firm with productive assets are lower than the return the market expects, the firm is undervalued by the market and a takeover occurs. Therefore, management maintains the level of earnings required to avoid a takeover of the undervalued firm. The signal is credible because only a firm with productive assets can maintain that level of earnings. Also, the signal is costly.

In order to signal, management must forego long-term positive net present value projects that do not immediately contribute to earnings. The cost to stockholders is the value of these foregone projects. However, signalling, although costly to stockholders, is in their best interests because it is less costly than their expected loss from the sale of the undervalued firm. Stein then suggests that an antitakeover amendment is an alternative to this costly signalling. Stockholders approve an antitakeover amendment that allows management to negotiate the true market value in the event a raider or other bidder appears. In this way, management no longer has the incentive to forego the long-term projects that maximize firm value.

Stein suggests that managerial myopia be tested by looking at capital or research and development (R&D) expenditures. If management is myopic, these expenditures will increase after an antitakeover amendment is enacted as management invests in long-term projects.
Following Stein's suggestion, Meulbroek, Mitchell, Mulherin, Natter and Poulsen (1990) tested for changes in R&D expenditures. Beginning with the Jarrell and Poulsen (1987) sample, they gathered R&D and sales data for 203 firms as well as for the market and the industries in which the sample firms are located. The test variable is R&D divided by sales. The variable is not benchmarked to determine if R&D expenditures for firms proposing antitakeover amendments are significantly different from other firms in the industry or in the market as a whole. The authors find that R&D/sales does not change for proposing firms after the announcement of an antitakeover amendment. However, R&D/sales increases over the same period for other firms in the industry and in the market as a whole. The difference in the rates of change in R&D/sales between proposing firms and both the market and the respective industries is negative and significantly different from zero at the 0.05 level. Contrary to Stein's prediction, the authors conclude that firms actually decrease R&D expenditures after an antitakeover amendment is enacted. They do not, however, control for changes in sales, their standardizing factor. The same results can be attributed to a relative increase in sales by firms enacting antitakeover amendments or to a relative decrease in R&D expenditures. In fact, if management does take on positive net present value projects after the amendment is enacted, increased sales are a reasonable result.
Therefore, the evidence against this form of the stockholders' interests hypothesis is not strong.

A possible explanation of this inconsistent evidence is that neither the stockholders' interests nor the managerial entrenchment hypothesis is adequate to provide answers to the three questions posed earlier. The questions concern why management proposes an antitakeover amendment, why stockholders approve the proposal, and what are the effects of the amendment on the firm's equity value. The following chapter proposes a new hypothesis that attempts to find answers to these questions.
CHAPTER IV

AN EXPLANATION OF THE IMPERFECT INFORMATION HYPOTHESIS

This chapter develops the imperfect information hypothesis as an alternative to the stockholders' interests and managerial entrenchment hypotheses.

Briefly, the imperfect information hypothesis holds that asymmetric information between management and stockholders (investors) occurs in two areas. The first area concerns the value of the firm's assets. At times, a firm's stockholders do not have perfect information about the value of the firm's assets even if management does. Without perfect information, the possibility exists for the market to undervalue the firm, leaving stockholders prey to an informed raider, as described by Stein (1988). An antitakeover amendment potentially alleviates this problem of information asymmetry by making management the credible negotiator for the stockholders. However, the effect of an antitakeover amendment on the value of the firm can be positive or negative, depending on management's objective, the second area of asymmetric information. Personal benefits accrue to management from both maximizing firm value and expropriating wealth from stockholders. Management's preference for one set of benefits over the other, as well as their ability to gain those
benefits, determines their objective. In the absence of perfect information, stockholders depend on signals, or indicators, of management's objective to estimate the effect of an antitakeover amendment on firm value. Stockholder approval of the amendment depends upon whether a sufficient number of stockholders expect the change in firm value to be nonnegative.

The remainder of this chapter explains the hypothesis in detail. The next section addresses management's objectives in proposing an antitakeover amendment. Following the discussion of managerial objectives, the remainder of the chapter addresses how different types of stockholders value and vote on a proposal when their information about the firm's equity value and management's true motive is imperfect.

Morck, Shleifer and Vishny (1990) propose that managers have personal objectives other than maximizing firm value. When managers make a decision, they consider the effects on both firm value and management's personal benefits. Two of the benefits cited by the authors as managerial objectives are long term growth of the firm and job security. These benefits form the bases for two separate managerial objectives in proposing an antitakeover amendment. As will now be explained, the same action, managerial proposal of an antitakeover amendment, has either positive or negative effects on firm value depending on management's objective.
The imperfect information hypothesis assumes that managers derive benefits from control. These benefits are in the form of compensation and perquisites granted by the firm. Benefits also take the form of rewards for the reputational capital accruing to those managers who maximize the value of the firm. The benefits of reputational capital include greater security in the managerial labor market. As target firm managers with good reputations lose their positions after negotiating a target firm-value maximizing takeover, they receive new positions commensurate with their abilities as replacements for managers with poor reputations. Managers with good reputations also receive more appointments to the boards of directors of other firms than do managers with poor reputations [Kaplan and Reishus (1988)]. With heterogeneous preferences, some managers prefer the compensation and perquisites derived from their present positions. These managers propose an antitakeover amendment with the objective of securing their jobs (entrenching). However, this objective does not preclude instances where management voluntarily relinquishes control if their personal benefits from the takeover, such as capital gains, exceed the benefits of retaining control.

Other managers prefer the benefits of reputational capital. They propose an antitakeover amendment with the objective suggested by Stein (1988). That is, they use the protection of
the amendment to undertake long-term, positive net-present-value projects. Since managerial entrenchment, by definition, occurs at the expense of stockholders, a problem faced by stockholders is to determine management's objective. At the same time, stockholders must also consider management's ability to operate the firm.

Managers are heterogeneous in ability. Some managers are better able than others to manage a firm's assets to achieve management's goal. Management's objective is to gain personal benefits either by maximizing firm value or by entrenching. Management can then be categorized by managerial objective and ability.

Managers with sufficient ability and with a preference for the personal benefits derived from reputational capital maximize firm value. A firm with this type of management is not subject to a disciplinary takeover since no bidder can expect to earn a positive return by improving the firm's operations. An antitakeover amendment proposed by this type of management is in the stockholders' best interests. Management not only intends to maximize firm value, they have demonstrated the ability to do so.

Managers entrench when they have the ability to attain their goal and a preference for the compensation and perquisites derived from their present positions. Entrenchment takes the form of excess compensation and/or consumption of perquisites at
the expense of stockholders. These managers are risk averse. They do not transfer wealth from stockholders to themselves to the extent that a disciplinary takeover becomes possible. The entrenchment costs to stockholders are never greater than the bidder's costs of a takeover. An antitakeover amendment increases the bidder's costs in a takeover, allowing management to appropriate more wealth from stockholders.

By definition, managers with lesser ability do not have the ability to acquire the benefits derived from reputational capital. Lacking the ability to maximize firm value, these managers have no incentive to propose an antitakeover amendment other than as a means of entrenchment. In fact, without an antitakeover amendment or some other type of defense, entrenchment is not possible. Even if these managers employ the firm's assets to the best of their ability, better management can always increase the value of the firm. They are, therefore, the most likely targets of a disciplinary takeover [Morck, Shleifer and Vishny (1987)]. Any attempt to appropriate wealth from stockholders only increases the probability of a takeover. Managerial entrenchment is held in check by the takeover market. An antitakeover amendment decreases disciplinary pressure and allows some entrenchment to occur.

All managers, then, have an incentive to propose an antitakeover amendment. Some managers propose an antitakeover
amendment to allow them to undertake the long-term investments that maximize firm-value, thereby enhancing the managers’ reputational capital. All other managers propose an antitakeover amendment to protect the compensation and perquisites they derive from control of the firm.

Once management proposes an amendment stockholders decide whether to approve or reject it. Each stockholder’s decision is based upon an analysis of the information held by that stockholder. Drawing on Shleifer and Vishny’s (1986) proposal that some stockholders have a greater incentive to monitor management than do others, stockholders are assumed to be either minimally informed or informed. The same categories extend to investors in general. In fact, all investors not holding stock in the firm are still stockholders with an initial position of zero. As with stockholders who do hold stock initially, those with a position of zero can buy or (short)sell.

Minimally informed stockholders acquire only the most easily obtained and least costly information ($Q_i$) because the cost of additional information is greater than the expected return. The information takes the form of simple earnings measures that signal the value of the firm’s assets under present management [Stein (1988)]. Minimally informed stockholders know that high firm value lessens takeover pressure on management, giving management an incentive to signal the highest value possible.
Management may manipulate short-term earnings to signal an inflated firm value. However, they cannot maintain the false signal over time. Therefore, minimally informed stockholders look at long-term earnings as an indicator of a high value firm. Poor short-term earnings are taken by these stockholders as an indication of decreased firm value, however. Management has no incentive to issue a false signal that undervalues the firm since such a signal can lead to a takeover [Stein(1988)]. Therefore, minimally informed stockholders believe both short- and long-term bad news as signalled through earnings, but only long-term good news.

Minimally informed stockholders' information is imperfect because the signal they observe is imprecise. The cost of observing a more precise signal is greater than the potential gain. The imprecise signal allows minimally informed stockholders to differentiate managers by ability, but not by objectives. Minimally informed stockholders can identify managers with lesser ability and deny them the protection of an antitakeover amendment, thus avoiding a decrease in equity value. These same stockholders cannot distinguish between able managers who intend to entrench and those who will maximize firm value. The distinction between firms managed by these two types of managers is too fine for the imprecise signal to pick up. Therefore, minimally informed shareholders would only approve an
antitakeover amendment proposed by able managers if on average the amendment does not decrease equity value.

Informed stockholders are assumed to have information \( \Theta_2 \) that is a subset of the information held by management \( \Theta_m \). The information contained in \( \Theta_m \) that is not contained in \( \Theta_2 \) is the additional information management sometimes holds concerning the value of the firm's assets [Stein (1988)] as well as management's true intentions in proposing an antitakeover amendment.

Informed stockholders observe both the imprecise signal observed by minimally informed stockholders and a more precise signal from management. The more precise signal is also a measure or combination of measures of earnings, possibly controlled for economic conditions. That is, informed investors interpret the earnings reported by management after making allowances for exogenous factors as well as possible managerial manipulation of the figures. Again, the imprecise signal allows stockholders to distinguish among managers on the basis of ability. All stockholders screen out antitakeover amendment proposals by less able management from consideration for approval. The more precise signal further enables informed stockholders to determine, although imperfectly, between the two managerial objectives. For firms in which management's objectives are not identified by the signal, informed stockholders resort to other indicators such as the presence of
effective monitors to help clarify the issue. Informed stockholders then categorize firms proposing antitakeover amendments by whether the effects of the amendment on equity value are expected to be positive or negative based on management's utility function. Those amendments expected to have positive effects are supported while all others are opposed.

Management has no incentive to propose an amendment unless it is expected to pass. Therefore, they propose an amendment when

\[ a + s_{mi}E(\pi_{mi}|\Theta_1) + s_1E(\pi_1|\Theta_2) \geq C \]  

(2)

where \( a \) is the number of voting shares held by management, \( s_{mi} \) and \( s_1 \) are the number of shares held by minimally informed and informed stockholders, respectively, and \( \pi_{mi} \) and \( \pi_1 \) are the proportions of those shares expected to be voted in favor of the amendment, conditional on \( \Theta_1 \) and \( \Theta_2 \), respectively. Management knows \( \Theta_1 \) and \( \Theta_1 \) because both are obtained from management's signals. \( C \) is the critical number of shares required for passage of the amendment. Management's expectations of the number of shares voted are based on past voting behavior. From equation 2, only firms that have signalled some minimum firm value propose antitakeover amendments because only they have a chance for approval. The proposing group includes both firms with able managers who are seeking an alternative to signalling and those with managers who are entrenching. Entrenchment is possible when
the combined holdings of management and minimally informed 
stockholders are sufficient to approve the proposal. Defeat of 
the proposal is possible only in cases where management attempts 
to force an amendment through behind a marginal signal.

The question arises as to why informed stockholders do not 
educate minimally informed stockholders so that only those 
antitakeover amendments that are expected to increase equity 
value are approved. At least three explanations are possible. 
First, the cost of informing diverse stockholders may exceed any 
benefits expected by the informed stockholders. Second, informed 
stockholders would have to give up a potential gain. By trading 
on their superior information, informed stockholders can 
appropriate wealth from those who are minimally informed. 
Competition among informed stockholders quickly incorporate the 
information into the stock price so that the gains and losses are 
limited to a few marginal trades. However, the potential gain 
may be sufficient to prevent informed stockholders from educating 
minimally informed stockholders. Finally, even if informed 
stockholders attempted to educate the minimally informed informed 
stockholders, the minimally informed stockholders have no way of 
estimating the credibility of the source. That is, minimally 
informed stockholders have no way to identify informed 
stockholders.
The last issue to be addressed concerns how the market determines the magnitude of the change in equity value when a firm proposes an antitakeover amendment. Since approval is virtually assured, the probability of passage is considered to be 1. The valuation varies depending on whether the market has determined the sign of the change to be positive or negative. If positive, the market must determine the magnitude of two effects. The first is the expected increase in firm value from the long-term, positive net-present-value project(s) that management intends to undertake under the amendment's protection. According to Stein (1988), this analysis is difficult because management cannot reveal all information concerning the project(s). If they could, they would have no reason to propose the amendment.

Informed investors, whose information determines the market's response, rely on an analysis of the degree of expertise that goes into the decisions about the project to determine how good the project will be. The greater the expertise, the greater the expected increase in firm equity value.

The second effect is the effect of the antitakeover amendment in the event of a takeover. Management in this case is firm value maximizing. The amendment is employed as a bargaining tool to gain the best deal for the firm's stockholders. The effect on firm value depends on the market's valuation of the results of the takeover negotiations. The valuation is
consistent with the predictions of Stulz's (1988) model with one change. The \textit{assumption that management opposes every bid} is relaxed. Now, management uses their position to negotiate the trade-off between the decreased probability of a takeover and the increased expected premium that maximizes the value of the firm's equity. Additionally, stockholders with a large number of shares can force negotiations in the same way as management, and with the same results.

The change in firm equity value when the effects of the antitakeover amendment are expected to be negative is straightforward. Management is entrenching. The magnitude of the change in firm equity value is the amount management can appropriate from stockholders under the protection of the amendment. The valuation is consistent with the Stulz (1988) model, but with an extension. In the original paper, the changes in the expected cash flows from operations are not adjusted to take investments by entrenching management into account. According to Jensen (1986), management invests the firm's free cash flows in negative net-present-value projects for their own benefit unless otherwise constrained. An antitakeover amendment decreases the threat of a disciplinary takeover, allowing these investments to take place unless another constraint is binding. Therefore, the cash flows from operations are reasonably expected
to decrease after an antitakeover amendment is approved. The market accordingly revalues the firm's equity downward.

The presentation of the imperfect information hypothesis is now completed. The next chapter identifies the testable implications of the hypothesis, develops tests of the implications, and describes the required data.
CHAPTER V
TESTABLE IMPLICATIONS CONCERNING MANAGEMENT’S OBJECTIVE
IN PROPOSING AN ANTITAKEOVER AMENDMENT

This chapter addresses some of the testable implications of the imperfect information hypothesis in the following order. The first implications concern the characteristic differences between firms that propose antitakeover amendments and firms that do not. The second set of implications concern management's objectives and the markets perception of those objectives. The remaining implications, which concern the size of the change in firm equity value on proposal of an amendment, are addressed in Chapter VIII. As each implication is identified, an appropriate test is designed and the required data are described.

Managers signal their level of ability as they signal the value of the firm through earnings. That is, management directs the employment of the firm’s assets which in turn produce earnings. Management’s ability is measured by the return earned from the given set of assets that comprise the firm. According to the imperfect information hypothesis, while all managers have incentives to propose antitakeover amendments, stockholders only approve antitakeover amendments proposed by managers who have demonstrated superior ability. Therefore, for a set of firms
facing identical economic conditions with identical assets, the firms that propose antitakeover amendments have higher earnings than those that do not. However, sets of firms do not face identical economic conditions or have identical assets. For testing to take place, then, the economic conditions and assets for firms in the test sample must be matched as closely as possible.

The closest approximation of identical economic conditions and assets is obtained by forming matched pairs of firms. One firm in each pair has proposed an antitakeover amendment (a proposing firm) and the other firm has not (a control firm). Collecting data within the same time period for both firms in each pair controls for the general state of the economy. Additionally, matching firms by their lines of business (industry) controls for industry specific economic factors. Two firms within an industry are also more likely to have similar, although not identical, assets than two firms from different industries. Finally, matching firms by size as measured by total assets controls for any economies of scale that could affect earnings. The procedure used to match the pairs is described next.

The 142 proposing firms in the sample were identified from three sources. The first was the list compiled by Jarrell and Poulsen (1987), covering the period 1979 to May 1985. The three

The two additional sources were the Dow Jones News Retrieval Service over the period December 1979 to January 1989 and a search of proxy statements during the screening of a control sample, as described below. The Dow Jones News Retrieval Service contains information from the Wall Street Journal, Barron's and the Dow newswire.

The relevant proxy statement for each firm identified as proposing either a fair-price or supermajority amendment was reviewed to insure the classification of the amendment was correct. Only supermajority and fair-price amendments were included in this study because, as was explained in Chapter II, they are the purest forms of antitakeover amendments. The firms were then screened to insure they were listed on both Center for Research in Securities Prices (CRSP) tapes and on COMPSTAT. A control firm was then matched to each sample firm by book value
of total assets, fiscal year in which the amendment was proposed, and industry.

To match firms by total assets, all firms on the COMPUSTAT tape with the same first two digits of the industry code as a firm proposing an amendment were ranked and divided into quartiles by total assets. The firm with the same four digit industry code that was closest in size of total assets within the same quartile was matched to each firm in the sample. If no firm with the same four digit industry code was in the same quartile, the firm was matched to the first three digits. If the firm could not be matched to three digits, it was dropped from the sample. Eleven firms were matched to the first three digits. The rest of the sample was matched to the complete four digit industry code. Once a control firm had been tentatively matched to a proposing firm, the control firm's proxy statements were examined. The examination began with the fiscal year most closely aligned to the fiscal year in which the proposing firm proposed the amendment and proceeded back through all available statements (1979 as a minimum) to insure no supermajority or fair-price amendment had been proposed. If the control firm had proposed an amendment during the period, that firm was dropped from the sample and another match was found.

Seven proposing firms in the sample were found to have been targets or rumored targets of a takeover within the year prior to
the amendment proposal. Four more made earnings announcements at the same time as the amendment proposal, while one announced a divestiture and another announced an acquisition. All tests were conducted both with and without these 13 firms included in the sample and no significant differences were found. The results reported here have the 13 firms included in the sample.

A search of the *Wall Street Journal* Index and the Dow Jones News Retrieval Service failed to find evidence that any of the proposed amendments were defeated.

The first implication of the hypothesis to be tested using this sample is that management's level of ability is signalled to the market through earnings. Stockholders then use the signal to determine whether to approve an antitakeover amendment. All managers have an incentive to propose an antitakeover amendment. However, only managers who have demonstrated superior ability through earnings can expect to have an antitakeover amendment approved. Therefore, earnings can be used to discriminate between firms that propose antitakeover amendments and those that do not.

Any test of this implication requires a measure of earnings. To be consistent with the imperfect information hypothesis, the measures must be easily obtained at minimum cost in order to be used by minimally informed stockholders. Three possible measures are return on assets, return on equity, and growth in earnings.
per share. All three are accounting measures calculated with book values.

Return on assets measures earnings as a percentage of the book value of the firm’s assets. These earnings are the total earnings to which first debtholders and, residually, stockholders have claim. This measure, then, is an indicator of the productivity of the firm’s total assets.

Return on equity measures earnings as a percentage of the book value of the firm’s equity. The measure is an indication of how effectively the managers, as agents, are working for the stockholders, the managers’ employers.

Growth in earnings per share measures the percentage increase in earnings accruing to one share of the firm over time. Earnings growth is an indicator of management’s ability to increase the per share return on the firm’s equity. A positive growth rate indicates earnings are improving. A negative growth rate indicates decreasing earnings.

Each of the three measures fits the selection criteria for use by minimally informed stockholders. Each of the measures is also an indicator to some extent of management’s ability, but each in a different way. None of the measures can be discarded out of hand as being obviously inferior to one or both of the others as a tool for minimally informed stockholders. Each should be included, then, as a possible explanatory variable in
any test of the relation between earnings and the proposal of an antitakeover amendment by a firm.

In keeping with the imperfect information hypothesis, the earnings variables are long-term measures. The data was taken from COMPUSTAT annual tapes. Year (0) is the fiscal year in which the amendment was proposed. Mean return on assets and mean return on equity are the means for years (-6) to (-1). Year (-1) is the last annual financial report prior to the amendment proposal. The earnings per share growth rate is the compound or geometric growth rate from year (-6) to year (-1). Earnings per share are adjusted for changes in the number of shares outstanding.

Another simple measure of firm performance, the market to book ratio, is included in tests as a control. The market to book ratio is the ratio of the market value of the firm's equity to the book or accounting value of equity. The ratio is calculated for the date of last annual report prior to the amendment proposal. This measure is included because, if the value of the firm is signalled through a means other than earnings, the information will be picked up in the firm's market value. The ratio is easily obtained at low cost from popular publications, so it meets the requirements of minimally informed stockholders.
An appropriate test of the implication is one that determines whether stockholders use firms' earnings to discriminate between antitakeover amendments they will approve and those they will not. As explained earlier, managers only propose antitakeover amendments if the proposal has a high probability of being approved. The question, then, is whether the probability of a firm proposing an antitakeover amendment increases with an increase in earnings. For a given firm, the possible outcomes are binary. Management can either propose an antitakeover amendment or not propose an amendment. These requirements for an appropriate test are met by a multiple logistic regression. The dependent variable is a binary response (1 if the firm adopts an antitakeover amendment, and 0 otherwise). The parameter estimators estimate the probability that a firm with that firm's specific levels of the independent variables (return on assets, return on equity, growth in earnings per share, and market-to-book ratio) will propose an amendment.

The regression coefficients can be estimated by ordinary least squares, weighted least squares or maximum likelihood estimation. However, ordinary least squares assumes the error terms are normally distributed and have a constant variance. Neither assumption holds when the dependent variable is binary. The error term is also binary and the variance differs at different levels of the independent variables. Therefore,
ordinary least squares is not optimal. Weighted least squares is appropriate only if there are a large number of repeat observations to allow for the calculation of weights. The data used in this study do not provide a sufficient number of repeat observations. Maximum likelihood estimation with a binary dependent variable does not have any limiting characteristics such as those cited for ordinary or weighted least squares. Therefore, parameters in the multiple logistic regression are estimated by maximum likelihood.

The next implication of the imperfect information hypothesis is that after an antitakeover amendment is enacted management ceases costly signalling through earnings as described by Stein (1988). Stein also predicts that management uses the protection of the amendment to invest in long-term, positive net-present-value projects. Therefore, according to Stein, a proposing firm is expected to experience a decline in earnings and an increase in assets relative to the control firm after enacting an amendment. These expectations are also consistent with the managerial entrenchment hypothesis. Earnings decline as management invests in non-productive assets for management’s benefit. The expectations of the imperfect information hypothesis, which combines elements of Stein’s and the managerial entrenchment hypotheses, are the same.
For the same reasons cited for the last test, a multiple logistic regression is the appropriate model for a test of this implication. The dependent variable is the same as before, a binary response that takes the value of 1 for a firm proposing an antitakeover amendment, and 0 otherwise. With one addition, the same independent variables appear in both regressions, only this time the data is ex post rather than ex ante. That is, the values for the variables are calculated, using the same procedure as specified above, for years (0) and (+1). Year (0) is the year in which the amendment proposal occurred. The independent variables common to the two regressions are mean return on assets, mean return on equity, compound (geometric) growth in earnings per share, and the market-to-book ratio. The additional independent variable in the regression is compound (geometric) asset growth. This variable is calculated in the same manner as growth in earnings per share. As with the other variables, the asset data are extracted from COMPSTAT. Total book value of assets is the extracted entry.

The remaining implications of the imperfect information hypothesis concern the direction and magnitude of the changes in firm equity value when an antitakeover amendment is proposed.

Several choices are possible for use as the announcement date. The first is the date on which the board of directors voted to submit the amendment to shareholder approval. No public
announcement of the vote was routinely made, making this date difficult to obtain. Jarrell and Poulsen (1987), among others, find that few announcements appear in the Wall Street Journal prior to submission of a proposal to stockholders. A second possible choice is the date the proxy statement is mailed. This date was used by Linn and McConnell (1983) and DeAngelo and Rice (1983). The exact date is sometimes not easily available because it is not specified on the proxy statement. Another possible choice is the date on which stockholders vote on the proposal. Since stockholders have already received the information about the proposal from the proxy statement in advance of the vote, this choice is only acceptable if there is uncertainty about the outcome. That is not the case since less than 5% of the proposals are defeated.

The final choice, the one used here, is the proxy signing date printed on each proxy statement. This date is easily obtainable and Jarrell and Poulsen (1987) find that it is usually the same as the mailing date but sometimes one day prior. The only exception to the use of this announcement date was for a single firm for which an announcement appeared before that date in the Wall Street Journal. In that case, the date of the Wall Street Journal article was used.

The changes in equity value were measured by cumulative abnormal returns calculated from data compiled by the Center for
Research in Securities Prices (CRSP). The procedure used is as follows.

First, the market model was used to estimate normal returns for each firm.

\[ R_{it} = a_i + b_i R_{mt} + e_{it}, \]  

where \( R_{it} \) = the return of security \( i \) at time \( t \), \( R_{mt} \) = the return on the market portfolio at time \( t \) (both the equally weighted and the value weighted indices were used), \( e_{it} \) = the residual term for security \( i \) at time \( t \). The residual term is assumed to be normally distributed with mean zero, to have constant variance and to be uncorrelated between residuals.

Abnormal returns (AR) were calculated by subtracting predicted returns from actual returns.

\[ AR_{it} = R_{it} - \hat{a}_i - \hat{b}_i R_{mt}, \]

where \( \hat{a} \) and \( \hat{b} \) are the ordinary least squares estimates of \( a \) and \( b \) in equation (1). The parameters were estimated over both the 120 trading days beginning 160 days prior to the announcement date and the 200 days beginning 240 days prior to the announcement date.

Cumulative abnormal returns (CAR) were determined by summing the abnormal returns for each firm over the appropriate period.

Under the imperfect information hypothesis, minimally informed stockholders will only approve antitakeover amendments
if, on average, approval does not cause the firm's equity value to decrease. As explained in Chapter III, previous studies have addressed the question of an antitakeover amendment's effect on firm equity value by using a normal t-test to determine if cumulative abnormal returns around proposal announcements are significantly different from zero. The same procedure is followed here to allow comparisons with the previous studies. A nonparametric sign test is also conducted on the cumulative abnormal returns to avoid the assumption of normality required by the t-test. Periods tested are (-20, -1), (-20, +1), (0, +1), (+1, +20), (-3, +3) and (-20, +20). These periods are chosen to allow comparison with other studies. Additionally, the period (-3, -1) is tested to see if there is evidence that the information leaks prior to the announcement period (0, +1).

The next implication of the imperfect information hypothesis concerns informed stockholders. Unlike minimally informed stockholders who do not engage in such extensive data collection and analysis, informed stockholders use a more precise earnings signal to determine whether an antitakeover amendment increases or decreases equity value. The signal's precision can come from a single measure that is too costly to be of value to minimally informed stockholders. Alternatively, the precision can come from a combination of earnings measures that, taken together, circumvent any attempt by management to misrepresent the value of
the firm. The implication suggests a decision criterion, not a linear relation. A firm that meets the criterion is expected to have a positive change in firm value. Firms not meeting the criterion are expected to have negative changes.

Again, a multiple logistics regression provides a means of testing this proposal. The possible outcomes are binary. A firm can decrease in value (negative cumulative abnormal returns), or not decrease in value (nonnegative cumulative abnormal returns). The dependent variable in the regression takes the value 1 for firms with nonnegative cumulative abnormal returns during the announcement period (days (0,+1)) and 0 otherwise. The independent variables are the same earnings measures described for the first test in this chapter for the period prior to proposal of the amendment. They are the earnings per share growth rate, mean return on assets, and mean return on equity. Again, the market-to-book ratio is also included as a control.

Descriptive statistics of the sample of firms proposing antitakeover amendments are presented in Chapter VI before proceeding to the empirical results of these tests in Chapter VII.
CHAPTER VI
A STATISTICAL DESCRIPTION OF FIRMS PROPOSING SUPERMAJORITY AND FAIR-PRICE AMENDMENTS

This chapter examines when antitakeover amendments were proposed and the size, ownership structure and composition of the boards of directors of the firms proposing them.

As Table 1 shows, antitakeover amendments were relatively uncommon prior to 1983. The increase in proposals from 1983 on is consistent with the findings of Jarrell and Poulsen (1987) and McWilliams (1990). The increase is attributable to an increase in takeover activity at the time. As in Jarrell and Poulsen, and McWilliams, fair-price amendments, which constitute 83% of this sample, account for most of the increase in proposals.

Antitakeover amendments are proposed by a wide range of firms. The market value of equity of the smallest firm in the sample is only $7 million, while the largest firm is $11.7 billion. The median equity value is $316 million and the mean is $933 million, so the distribution is skewed to the right. An antitakeover amendment appears to have some application in a firm regardless of the firm’s size.

The distribution of equity ownership shown in Table 2 is consistent with the imperfect information hypothesis.
Management, even in conjunction with pressure sensitive blockholders, does not have sufficient votes to force approval of a proposal. Pressure insensitive blockholders, who have the greatest incentive to monitor management [Shleifer and Vishny (1986), Brickley, Lease and Smith (1988)], do not hold strong positions. Nonblock stockholders have less incentive to monitor management than do pressure insensitive blockholders so they are the most likely stockholders to be minimally informed. The median percentage of the firm held by nonblock stockholders is 82.3%, and the mean is 79%. In fact, nonblock stockholders hold a majority of the shares in all but 9 of the sample firms. This structure presents management with the opportunity to entrench if they can maintain an earnings signal strong enough to gain the approval of minimally informed stockholders. Conversely, the structure prevents management from entrenching if a strong signal is not maintained.

Interestingly, 54 of the sample firms have pressure sensitive blockholders, 51 have pressure insensitive blockholders. At least one type of blockholder is present in 85 firms. That 57 firms have no blockholders is not consistent with Shleifer and Vishny (1986) who suggest that no takeover is possible if a blockholder is not present. If the managers of those 57 firms did not fear the possibility of a takeover they would have no incentive to propose an antitakeover amendment. A
possible explanation is that less than 5% of the firm's equity is sufficient to qualify as a block in the sense of Shleifer and Vishny. Another explanation is that management is positioning for the future when an investor may acquire a block.

Finally, Table 2 shows that outside directors are a majority on the boards of most of the firms proposing amendments. Only 39 firms do not have outsider controlled boards. If, as Fama and Jensen (1983) suggest, outside directors have an incentive to maximize firm value, entrenchment is not possible in all but 39 firms in the sample.

The "typical" firm proposing an antitakeover amendment, then, can be any size. The board of directors is controlled by outsiders and a majority of the voting shares are held by stockholders who are most likely to have the least information.

These are the firms for which the tests are conducted in Chapter VII.
CHAPTER VII

EMPIRICAL RESULTS OF TESTS OF THE IMPLICATIONS
OF MANAGEMENT'S OBJECTIVES

This chapter presents the results of the tests described in Chapter V.

The results presented in Table 1 are consistent with management's signalling of firm value through earnings. Growth in earnings per share prior to the event is found to be highly significant \( (p = 0.0025) \) in distinguishing between firms that propose antitakeover amendments and those that do not. The higher the growth in earnings per share, the greater the probability that the firm proposes an amendment. None of the other variables are even marginally significant. This evidence is also consistent with stockholders using the earnings signal to screen out less able managers who are likely to entrench. Only managers of firms with a sufficiently high earnings signal propose antitakeover amendments because only they can obtain stockholder approval.

Consistent with Stein (1988), the managerial entrenchment hypothesis and the imperfect information hypothesis, asset growth is significantly higher \( (p = 0.0349) \) for firms with antitakeover
contests by DeAngelo (1988). For instance, a one-time-only earnings increase from the sale of an asset just prior to proposal of an antitakeover amendment would result in the same compound growth rate as a constant increase in earnings over the period.

There is no evidence of managerial manipulation among these proposing firms. Both the mean and median differences in the earnings per share growth rates between proposing and control firms for each of the three years preceding the amendment proposal are positive, although only significantly for one year. That year is not the one immediately prior to the amendment proposal. The lowest $z$-statistic over the three years for a nonparametric rank sum test of median differences is 1.12. The significantly higher compound earnings per share growth rate for proposing firms appears to be a result of higher earnings growth over a long period rather than last minute manipulation by management.

Consistent with Stein (1988), the managerial entrenchment hypothesis and the imperfect information hypothesis, asset growth is significantly higher ($p = 0.0349$) for firms with antitakeover amendments than those without for the period following approval. During the same period, growth in earnings per share is no longer significant. The combination of increased asset growth and a drop in earnings relative to the control group is consistent with
the undertaking of long-term, positive net-present-value projects, the acquisition of negative net-present-value assets for the sake of management, or a combination of both. The decline in earnings is also consistent with mean reversion. Entrenching management can propose an antitakeover amendment at the end of a period of unusually high growth that is more attributable to good fortune than to good management. In this case, entrenching management takes advantage of the temporary increase in earnings to gain approval of an antitakeover amendment before the earnings revert to normal and management's true level of ability is revealed. Under the protection of the amendment, management can acquire nonproductive assets for their own purposes. However, since Ball and Watts (1972) find that accounting measures of income, including earnings per share, follow a submartingale, this mean reversion argument is not strong.

The study now turns to the question of what changes occur in the value of a firm's equity when an antitakeover amendment is proposed. The measure of the change in value is the abnormal returns around the announcement of the proposal. Abnormal returns around the announcement date were estimated using both the value-weighted and equally-weighted indices. Estimation periods were 120 days beginning 160 prior to the announcement date and 200 days beginning 240 days prior to the announcement.
No significant differences were found among the estimation methods. The results in Table 4 were obtained using a 120 estimation period and the equally-weighted index.

As with the mixed evidence of previous studies, no evidence is found here that, on average, antitakeover amendment proposals cause significant changes in firm value. Contrary to the predictions of both the managerial entrenchment and stockholders' interests hypotheses, the cumulative abnormal returns in Table 4 are not significant for any period. However, this insignificance is consistent with minimally informed stockholders not approving any measure that, on average, decreases the value of stockholder equity.

The insignificantly negative mean and median returns for the three days prior to announcement (-3,-1) indicate that no confounding events prior to the announcement have effects that carry over into the announcement period.

The tests now focus on whether firms that increase in value on proposal of an antitakeover amendment have characteristic differences from those that decrease in value. Under the imperfect information hypothesis, informed investors use an earnings signal to categorize firms by the sign of the expected change in firm equity value caused by the antitakeover amendment. Table 5 shows the results of a logistic regression in which the dependent variable is 1 for firms with nonnegative returns and 0
otherwise. The earnings measures are the market-to-book ratio, earnings per share growth rate, mean return on assets and mean return on equity. The mean return on assets for the six years prior to the proposal of an antitakeover amendment is significant and positive ($p = 0.04$). The higher a firm's mean return on assets prior to the proposal of an antitakeover amendment, the greater the probability the change in firm equity value is positive. Although return on assets does not perfectly discriminate between the signs of the returns, the evidence is at least consistent with the measure being correlated with a true measure that informed investors use to categorize firms.

The results of a logistic regression on the cumulative abnormal returns for days (-3, -1) are also shown in Table 6. None of the variables are significant. The significant result found for mean return on assets does not appear to be a carry over from an earlier event.
CHAPTER VIII

TESTABLE IMPLICATIONS CONCERNING THE MAGNITUDE OF CHANGES IN FIRM EQUITY VALUE ON PROPOSAL OF AN ANTITAKEOVER AMENDMENT

The remaining implications of the imperfect information hypothesis concern the magnitude of the changes in firm equity value on proposal of an antitakeover amendment. Using the Stulz (1988) model of firm equity valuation, the magnitude is determined by the presence of factors that affect expected cash flows from operations, the expected premium in the event of a takeover, and/or the probability of a takeover occurring. Two of these factors have been addressed in previous studies noted in Chapter III. The factors are the proportions of equity held by the firm’s management and by outside (usually institutional) blockholders. A third factor is the proportion of outside directors on the firm’s board. Each of these factors is discussed in turn to provide rationale for the design of the remaining tests.

As explained in Chapter III, the size of managerial equity holdings affects both the probability of a takeover and the expected takeover premium. The value of the firm increases when firm-value maximizing management proposes an antitakeover
amendment, as was also explained. The more shares management holds, the greater the increase in equity value. If, however, management is entrenching, the expected result is as found by McWilliams (1990). Equity value decreases as managerial holdings increase. Managerial holdings, then, do not determine whether changes in equity value are positive or negative. But, once the market determines management's objective, managerial holdings are related to the magnitude of the value change.

Shleifer and Vishny (1986), building on Grossman and Hart (1980), explain that blockholders, stockholders with a large proportion of a firm's equity, have a greater incentive to monitor management than stockholders with only a few shares. Blockholders distribute the fixed costs of monitoring over more shares so that the benefits of monitoring that accrue to each share are greater than the allocated cost. Shleifer and Vishny do not say that all blockholders monitor. Even with a greater incentive to monitor, some blockholders may remain passive.

A blockholder's ability to monitor comes from the number (proportion) of voting shares held. The larger the blockholder's position, the greater the number of shares the blockholder can vote for or against a managerial proposal. Also, the votes are used in the election of directors who in turn have the authority to hire and fire managers. A blockholder's ability to influence
the actions of management, then, increases with the proportion of shares held by the blockholder.

Monitoring blockholders fit in the category of informed stockholders. They oppose antitakeover amendments proposed by entrenching management as well as opposing any other managerial actions not in the stockholders' interests. A monitoring blockholder influences management on what projects to undertake, adding additional expertise to the decision process and increasing expected cash flows from operations \( \text{E}(y) \).

In the event of a takeover, a blockholder uses the shares held in the same way as managers use their holdings. A blockholder drives up the premium by refusing to tender, simultaneously reducing the probability of a positive gain to the bidder. The larger the equity position held by the blockholder, the stronger the blockholder's negotiating position and the greater the value of the firm in the event of a takeover.

To this point, the discussion has addressed blockholders as a homogeneous group. Brickley, Lease and Smith (1988) provide evidence that blockholders are not homogeneous in their response to a proposed antitakeover amendment. They find that institutions that may have lines of business with the firm (pressure sensitive firms), such as banks, insurance companies and trusts, are more likely to vote in favor of a firm-value decreasing amendment than other types of (non-pressure sensitive)
blockholders. The authors' explanation is that the pressure sensitive institutions are protecting the benefits they receive from those lines of business with the firm which are controlled by the firm's management. Failure by these institutions to support management could result in loss of the lines of business. Although not considered by Brickley, et. al., the reverse can also be true. Failure of management to maintain the lines of business with the institutions could result in the institutions opposing management's proposals. Obtaining a large block of shares in a firm can be viewed as a potential means of securing an institution's lines of business.

If some blockholders support management to protect their lines of business they have a countervailing effect on the monitoring abilities of other blockholders. A blockholder's ability to monitor stems from the number of the firm's shares the blockholder can vote against management. Each share held by a blockholder supporting management cancels the monitoring effects of a share held by a monitoring blockholder. Effective monitoring is most likely to be exercised through the number of shares not cancelled by blockholdings that vote with management.

An indication of whether blockholders in a firm are active (monitoring) or passive is the value of the firm as signalled by management. If the signal shows evidence of entrenchment by management, blockholders are not effectively monitoring. No
relation between changes in equity value and blockholders' equity positions on proposal of an antitakeover amendment is expected for firms in which blockholders are demonstrably passive. The same argument applies when trying to determine the effectiveness of monitoring by outside directors.

Fama and Jensen (1983) describe outside directors as expert decision makers who derive their primary means of livelihood from sources outside the firm. These sources are dependent to some extent on the director's reputation as a decision expert. Therefore, outside directors have an incentive to effectively monitor a firm's management to ensure no actions are taken that reflect negatively on the director's decision making skills. Weisbach (1988) provides evidence that outside directors effectively monitor management. In a study of firms with poor performance, he finds that CEO turnover is higher in firms with outsider dominated boards of directors than in those with insider dominated boards. However, Kaplan and Reishus (1988) provide evidence that the number of outside directorships a manager receives is related to the performance of the manager's own firm. If a manager's reputation is based solely on the performance of the manager's firm, the manager has no incentive to protect the interests of the stockholders of firms in which the manager serves as an outside director. Therefore, the presence of outside directors is not necessarily an indicator of monitoring.
As expert decision makers, outside directors contribute to decisions about the acquisition and employment of assets that generate cash flows. The greater the proportion of outsiders on the board, the greater the probability their expertise will influence the decisions. If greater expertise results in the acquisition of assets better suited to a project, the cash flows generated by assets chosen by a more expert board are expected to be greater than from those chosen by one less knowledgeable. When an antitakeover amendment is proposed in order to allow management to undertake long-term, positive net-present-value projects, the cash flows from those projects are expected to be an increasing function of the proportion of outside directors.

The board of directors also has a role in takeover negotiations. A board-out clause provides the board of directors with a flexible means of negotiating transfer of part or all of a bidder's gain to target stockholders. The provisions of the clause are employed when the requirements of an antitakeover amendment are too stringent to allow a stockholder equity value-maximizing takeover. The greater the proportion of outside directors on the board, the greater is the probability their expertise will be decisive in the negotiations and the better the expected outcome from the perspective of the firm's stockholders.

As shown, the value of a firm is expected to increase with the proportion of outside directors. But, again, the earnings
signal must show no evidence of entrenchment in order for the outside directors to be credible monitors.

In those cases where the earnings signal is not precise enough to determine management's objective, the presence of potential monitors can enhance the accuracy of the final determination. Outsider directorships and/or blockholder positions may provide additional information.

The common procedure in the election of a board of directors is for management to submit a slate of candidates to stockholders for approval. An insider dominated board is necessary for managerial entrenchment if outside directors monitor effectively. Therefore, submission of an outsider dominated slate of candidates by management is an indication that management is not entrenching. Further, in the absence of effective monitoring by blockholders, the board of directors can be assumed to be nominated by management since, in accordance with Shleifer and Vishny (1986), non-block stockholders have little incentive to offer an opposing slate. However, management in this instance can fail to nominate recalcitrant outside directors in the next board election following approval of the antitakeover amendment, weakening the proportion of outside directors as an indicator of management's objective.

Blockholder positions are also indicators of management's intended use of the proposed amendment. Effective monitoring by
blockholders influences management to maximize the value of the firm. Therefore, those firms with more shares held by pressure insensitive blockholders than by pressure sensitive blockholders are expected to have firm value maximizing management. Unlike outside directorships, blockholder positions have the advantage of not being controlled to any extent by management and are, therefore, stronger indicators of how an amendment will be employed.

The relations just described are implications of the imperfect information hypothesis presented in the context of the Stulz (1988) model of stockholder equity value. The relations between changes in equity value and each factor described above differ depending upon the market's determination of management's objective. That determination, except possibly in marginal cases, depends on management's signalling of firm value through earnings. The higher the earnings, the greater the probability that management is firm-value maximizing. For firms with firm-value maximizing management, the change in equity value on proposal of an antitakeover amendment is expected to be positive. Managerial equity holdings are then expected to be positively related to the change in firm value because the high earnings are evidence that management is working in the best interests of the stockholders. The relations between the change in firm value and both the proportion of outsiders on the board and pressure
Insensitive blockholdings are expected to be positive as the higher earnings can be interpreted as the result of effective monitoring by these two groups. The effects of pressure insensitive blockholdings on firm value, however, depend on the existence of a countervailing effect from pressure sensitive blockholdings.

If the market determines from the firm's earnings that management is not firm-value maximizing, the relations between the change in firm value on proposal of an antitakeover amendment and the factors discussed above will take a different form. The market now values managerial equity holdings by the ability the holdings give management to oppose a takeover. The relation between the change in firm value and managerial equity holdings is expected to be negative as management entrenches. Also, the evidence of management's entrenchment is an indication that no effective monitoring is being conducted by either outside directors or pressure insensitive stockholders. The relation between the change in firm value and both of these factors is expected to be insignificant.

These differing relations, dependent on the market's earnings-based determination of management's objective, are inconsistent with both the stockholder's interests and the managerial entrenchment hypotheses. Because both hypotheses
assume only one managerial objective, any relations between the change in firm value and a factor must remain constant.

In order to test these implications, the factors must be defined to allow data collection. The first factor is managerial equity holdings. Managers are defined here as the officers of the firm and the members of the board of directors. Obviously included in equity holdings are the shares owned by managers for which the managers hold exclusive voting rights. Managers also share voting rights with other individuals for some stock. How these shares will actually be voted in an individual control contest is impossible to determine. However, because of the strong probability that the manager has sufficient influence to control the stock's votes, the shares can reasonably be assumed to be part of the manager's equity holdings for the purposes of voting in control contests. Finally, in the event of a control contest, the manager's position is improved by increasing the number of shares the manager controls. One source of additional shares is the exercise of stock options held by the manager. Therefore, any stock options available to the manager that can be exercised in sufficient time to influence a control contest are reasonably included in managerial holdings. The source for this data is the firm's proxy statement that announces the proposal of an antitakeover amendment. For the purposes of this study, management's holdings are defined as shares for which directors
and officers of the firm has sole beneficial ownership or share voting rights, and any options exerciseable within 60 days of the signing of the proxy statement. Voting rights shared by one or more directors or officers are assigned to the officer or director with the largest beneficial holdings to avoid counting the same shares more than once.

The second factor is the proportion of outsiders on the board of directors. In order to be a credible monitor, the outside director must lose more from outside the firm than is gained from the firm as a result of a firm-value decreasing decision. That is, the loss from lines of business external to the firm as a result of diminished reputation as an expert decision maker must be greater than any benefit the outside director receives from appropriating stockholder wealth. One definition of an outside director is any director who is not otherwise an employee of the firm. This definition does not exclude directors who are not employees, but have significant lines of business with the firm. Examples are consultants or officers of other firms with strong financial ties to the firm in question. The definition also does not exclude relatives of the firm's management who may be expected to support management's proposals because of family ties. For the purposes of this study, a stricter definition of outside directors is employed. Outsiders are defined as those directors having no business
connections with the firm other than as board members and no family connection with any manager of the firm. The information for the classification of directors as insiders or outsiders was gathered from the biographical sketches included in the proxy statements announcing the proposed antitakeover amendment.

The basic definition of a pressure sensitive blockholder is taken from Brickley, Lease and Smith (1988). As stated earlier, these blockholders include banks, insurance companies and trusts. Unlike Brickley, Lease and Smith, any blocks held by a relative of a manager or by an organization that had an officer of the firm on its board are also considered pressure sensitive in this paper. The relative may be influenced by family loyalty, while the officer may influence the voting of the other firm's shares.

For the purposes of this study, blockholders are defined as the holders of ≥5% of the outstanding voting shares of the firm. Firms are required by the Securities and Exchange Commission to list all holders of ≥5% of any class of stock on the firm's proxy statement. The proxy statement in which the proposed antitakeover amendment is announced is used to identify blockholdings. Any blockholder not meeting the criteria for pressure sensitive is classified as a pressure insensitive blockholder.

Tests in previous studies of the relations between cumulative abnormal returns on proposal of an antitakeover
amendment and either managerial holdings or blockholdings are detailed in Chapter III. The tests take two forms, both cross-sectional. They are either (multiple) logistic or ordinary least squares regressions. The logistic regression tests whether the probability of positive (negative) cumulative abnormal returns increases (decreases) with a change in managerial or block holdings. Ordinary least squares are used to test for a linear relation between cumulative abnormal returns and managerial holdings. Ordinary least squares, then, tests if managerial holdings can explain the magnitude of the change in firm equity value on proposal of an antitakeover amendment. However, the ordinary least squares approach is not optimal under either the stockholders' interests or managerial entrenchment hypothesis because of the truncated distribution problem cited by Eckbo, Maksimovic and Williams (1990).

Both multiple logistic and ordinary least squares regressions are employed to test the imperfect information hypothesis's implications about the relation between the change in firm value on proposal of an antitakeover amendment and the factors discussed above. Ordinary least squares is appropriate because the imperfect information hypothesis does not imply a truncated distribution. The change in firm equity value is firm-specific and can be either positive or negative. Therefore, the
argument of Eckbo, Maksimovic and Williams (1990) against the use of ordinary least squares in an event study does not apply.

The imperfect information hypothesis implies that the market's reaction to a proposed antitakeover amendment is conditioned on the firm's earnings. Other studies, discussed in Chapter III, suggest that managerial equity holdings and the presence of effective monitoring determine the market's reaction to the proposal. The logistic regression tests whether managerial holdings, blockholdings or the proportion of outsiders on the board of directors affect the probability that a firm's equity value increases (decreases) in the event of an antitakeover amendment proposal. The dependent variable takes the value 1 when the cumulative abnormal returns are nonnegative, and 0 otherwise. Blockholdings are segmented as pressure sensitive or insensitive. If, consistent with the imperfect information hypothesis, the market uses earnings to determine management's objective, none of these factors are expected to have significant explanatory power.

The next implication of the imperfect information hypothesis is that once the market has used earnings to determine the direction of the change in firm value, managerial equity holdings and the presence of effective monitors determines the magnitude of the change. In the context of the Stulz (1988) model, the relations determining the magnitude of the change are expected to
vary depending on the market's determination of management's objective.

If the relations between firm value change and the proposed explanatory values are expected to be the same over the entire sample, an ordinary least squares regression provides an appropriate model. The two possible managerial objectives do not result in a truncated distribution as described by Eckbo, Maksimovic and Williams (1990). However, testing for different relations between changes in firm value and the proposed explanatory variables requires conditioning the variables on the sign of the change. If two separate regressions are used, one for positive and one for negative firm value changes, truncation occurs. Using a single regression including all conditioned variables should preclude the truncation problem, but multiple logistics regressions are used as a check of the ordinary least squares regression results.

The measure of change in firm equity value is cumulative abnormal returns around the announcement date. Two periods are tested, days (0,+1) and (-3,-1). Day (0) is the announcement date. The purpose behind testing the latter period is to determine if (0,+1) is an appropriate event period. If the effects are a result of the antitakeover amendment proposal rather than a previous confounding event, no effects are expected to be found in the prior period.
Again, the explanatory variables are managerial equity holdings, the proportion of outsiders on the board of directors, pressure sensitive blockholdings and pressure insensitive blockholdings. The latter three factors provide measures of the presence of possible effective monitors. Two dummy (indicator) variables ($d_1$ and $d_2$ defined below) are used to allow for the expected differences in coefficients between firms for which the proposal is determined to be value increasing and those that are value decreasing.

Additionally, the model tests the implied countervailing effect of pressure sensitive blockholders on the monitoring capabilities of pressure insensitive blockholders. Dummy variables ($d_3$ and $d_4$) segment blockholders into those in firms where pressure sensitive blockholders hold at least as many voting shares as pressure insensitive blockholders and those firms in which pressure insensitive blockholders hold more shares, respectively.

The regression model is

$$\text{CAR}_i = b_0 + d_1 b_1 a_1 + d_1 b_2 B_1 + d_3 d_1 b_3 BL_1 + d_4 d_1 b_4 BL_1 + d_3 d_1 b_6 BL_2 + d_4 d_2 b_6 BL_2 + d_4 d_2 B_2 + d_2 B_2 + d_2 B_2 + d_3 d_2 b_9 BL_1 + d_4 d_2 b_10 BL_1 + d_3 d_2 b_11 BL_1 + d_4 d_2 b_12 BL_1 + e_i,$$  \hspace{1cm} (5)

where

$\text{CAR}_i$ is the cumulative abnormal return for firm $i$ over the designated period,
$a_i$ is the proportion of firm $i$'s equity held by the firm's management,

$B_i$ is the proportion of outsiders on firm $i$'s board of directors,

$BL_1$ is the proportion of firm $i$'s equity held by pressure sensitive blockholders,

$BL_2$ is the proportion of firm $i$'s equity held by pressure insensitive blockholders,

$d_1$ is a dummy variable that takes the value 1 when $CAR_i$ is positive and 0 otherwise,

$d_2$ is a dummy variable that takes the value 1 when $CAR_i$ is negative and 0 otherwise,

$d_3$ is a dummy variable that takes the value 1 when $BL_1 \geq BL_2$ for firm $i$, and 0 otherwise,

$d_4$ is a dummy variable that takes the value 1 when $BL_1 < BL_2$ for firm $i$, and 0 otherwise,

and

$e_i$ is the error term.

A potential problem with this type of multiple regression is multicollinearity. Pairwise testing of variables for significant levels of correlation is not entirely effective in identifying the problem. The problem can stem from a single variable being marginally correlated with a number of other variables in the regression. Variance inflation factors identify this problem if
it exists. A variance inflation factor (VIF) compares the variance of the estimated regression coefficient to what the variance would be if the variables were not linearly related. The variance inflation factor for the kth independent variable is

\[ (VIF)_k = (1 - R_k^2)^{-1} \quad k = 1, \ldots, p-1. \]  

(6)

\( R_k^2 \) is the coefficient of multiple determination when the kth independent variable is regressed on the other independent variables in the model. A variance inflation factor greater than 10 for any variable in the model indicates multicollinearity [Neter, Wasserman and Kutner (1989)].

Two multiple logistics regressions are employed as checks of the results of the ordinary least squares regression. The sample is first segmented into those firms with positive value changes and those with negative value changes. Each subsample is then ordered by the size of the value change. A firm is assigned the value of 1 if it is in the top half (high value change) of the subsample and 0 otherwise. The explanatory variables are managerial equity holdings, the proportion of outsiders on the board of directors, and the difference in the holdings of pressure insensitive and pressure sensitive blockholders. The last variable is included to test the proposed countervailing effect.

The final testable implications concern the role of monitors in decreasing the market's uncertainty about management's
objective in proposing an antitakeover amendment. Even after the market uses earnings to classify a proposed amendment by the expected direction of the change in firm value, some uncertainty may remain as to management’s true objective. The market is expected to value the effects of management’s equity holdings differently depending on how certain management’s actions are expected to be in the event of a takeover bid. For example, when the market is certain management will maximize firm value in the event of a bid, the change in firm value on proposal of an amendment will be positive and more significantly related to managerial equity holdings than if management’s actions were uncertain. The presence of credible monitors is expected to alleviate some of the uncertainty.

Outside directors and blockholders are the two potentially credible monitors addressed here. Outside directors are most credible as monitors when they control the board. Differences in the market perceptions of the effects of managerial equity holdings on the change in firm value can then be tested through the use of dummy variable. Using two dummy variables \( d_6 \) and \( d_8 \), managerial holdings are segmented into those firms with insider controlled boards and those controlled by outsiders, respectively. These new segments are added to the model in equation (5).
The regression model is

\[ \text{CAR}_i = b_0 + d_5d_1b_1a_i + d_6d_1b_2a_i + d_1b_3B_i + d_3d_1b_4BL_1i + d_4d_1b_5BL_2i \\
+ d_3d_1b_6BL_1i + d_4d_1b_7BL_2i + d_6d_2b_9a_i + d_8d_2b_9a_i + d_2b_{10}B_i \\
+ d_3d_2b_{11}BL_1i + d_4d_2b_{12}BL_1i + d_3d_2b_{13}BL_2i + d_4d_2b_{14}BL_2i \\
+ e_i, \]  

(7)

where the additional notation is defined as

- \( d_5 \) is a dummy variable that takes the value 1 when the board of firm \( i \) has \( \leq 50\% \) outside director, and 0 otherwise, and
- \( d_6 \) is a dummy variable that takes the value 1 when board of firm \( i \) has \( > 50\% \) outside directors, and 0 otherwise.

The same procedure is used to control for monitoring by blockholders. The implication of the difference between pressure sensitive and insensitive blockholders is that pressure insensitive blockholders are most credible as monitors when they hold more voting shares (dominate) than do pressure sensitive blockholders. Again, dummy variables \((d_7, d_8, d_9)\) are used to segment firms into those in which pressure sensitive blockholders dominate, pressure insensitive blockholders dominate, and no blockholders are present, respectively. The regression model is

\[ \text{CAR}_i = b_0 + d_7d_1b_1a_i + d_8d_1b_2a_i + d_9d_1b_3a_i + d_1b_4B_i \\
+ d_5d_1b_6BL_1i + d_4d_1b_7BL_2i + d_3d_1b_7BL_2i \\
+ d_4d_1b_8BL_2i + d_7d_2b_9a_i + d_8d_2b_{10}a_i \\
+ d_9d_2b_{11}a_i + d_2b_{12}B_i + d_3d_2b_{13}BL_1i \]
+ d_4 d_2 b_{14} B_{L1} + d_3 d_2 b_{15} B_{L2} + d_4 d_2 b_{16} B_{L2} + e_i, \quad (8)

where the additional notation is defined as

\( d_7 \) is a dummy variable that takes the value 1 when \( B_{L1} \geq B_{L2} \)

for firm i, and 0 otherwise,

\( d_8 \) is a dummy variable that takes the value 1 when \( B_{L1} < B_{L2} \)

for firm i, and 0 otherwise,

and

\( d_9 \) is a dummy variable that takes the value 1 when firm i

has no blockholders, and 0 otherwise.

The results of the tests of these implications are presented in Chapter IX.
CHAPTER IX

EMPIRICAL RESULTS OF TESTS OF THE IMPLICATIONS CONCERNING CHANGES IN FIRM EQUITY VALUE

This chapter presents the results of the tests described in Chapter VIII.

As described in Chapter III, previous studies have proposed that the change in firm value is related to management's equity holdings and to blockholdings. This study expands on previous studies by categorizing blockholders as being pressure sensitive and pressure insensitive. Pressure sensitive blockholders have lines of business with the firm that the blockholders wish to protect. All other blockholders are pressure insensitive. Also examined is the relation between the change in firm value and the proportion of outsiders on the board of directors. The results of a logistic regression with these variables is in Table 6. Unlike the results for mean return on assets presented in Table 5 and contrary to the predictions of the previous studies, none of the variables is even marginally significant for the announcement period.

The next tests use ordinary least squares regressions to determine if the market values explanatory variables differently
depending on whether the returns are positive or negative. The explanatory variables are management’s equity holdings, blockholdings and the proportion of outsiders on the board of directors. Additionally, blockholders are segmented to control for the possible countervailing effect that pressure sensitive blockholders may have on pressure insensitive blockholders.

The results of the regressions are in Table 7. The regression for days (-3,-1) shows no significant results at the 0.05 level so that, again, results in the announcement period are not attributable to previous events. For the announcement period, days (0,+1), the results are consistent with the imperfect information hypothesis in the context of the Stulz (1988) model. Four of the five variables are significant for firms with positive returns. All five variables are insignificant for firms with negative returns. These results are generally consistent with those expected if the market values the effect of these variables on firm value only after determining the sign of the value change.

The results are quite robust. Deleting all outlying observations, those more than two standard deviations from the mean, actually increases the significance of the results. An additional regression with standardized abnormal returns as the dependent variable yielded generally the same results, but the distribution was not normal. Deletion of two outliers yielded a
distribution that is not distinguishable from the normal distribution. After the outliers were deleted, the coefficients retained at least the significance levels found in Table 7. Multicollinearity is not a problem. The highest variance inflation factor is 6.2, well below the usual significance level of 10.

Each of the variables is now discussed in turn.

The coefficient for management’s equity holdings is positive and significant ($t = 2.53$) for firms with positive returns, and insignificantly ($t = -1.16$) negative for firms with negative returns. The two coefficients are significantly different ($F_{1,120} = 6.34, p = 0.013$). Firm value maximizing management appears to have a greater ability to increase firm value in a takeover than entrenching management has to decrease it. The insignificantly negative result for firms with negative returns is consistent with the offsetting effects of the Stulz (1988) model. Even though entrenching management opposes all takeovers, the decreased probability of a takeover is offset by the increased expected takeover premium. On average, no significant change in firm value occurs. On the other hand, the management of firms the market has categorized as benefitting from an antitakeover amendment increase their negotiating power as their holdings increase. When negotiating a takeover, a target’s firm
value maximizing management never allows the reduced probability of a takeover to dominate the increased expected premium.

These results are inconsistent with both the stockholders' interests hypothesis and the managerial entrenchment hypothesis. The stockholders' interests hypothesis predicts a positive sign for managerial holdings. Management's negotiating position becomes stronger in conjunction with the antitakeover amendment as management's holdings increase. The sign is as predicted for firms with nonnegative returns. For firms with negative returns, the sign for managerial holdings is negative, but insignificantly different from zero. The insignificance does not allow the result to be interpreted as strong evidence that managerial holdings have a negative effect on the value of these firms, an inference totally inconsistent with the stockholders' interests hypothesis. But, even disregarding the sign, the stockholders' interests hypothesis cannot explain why the effects of managerial holdings vary depending on the sign of the equity value change.

The results for managerial holdings are inconsistent with the managerial entrenchment hypothesis for basically the same reasons as with the stockholders' interests hypothesis. The only significant result is the positive relation between the change in firm equity value and managerial holdings for firms with nonnegative returns. This result is the opposite of the negative relation predicted by the hypothesis. In firms with negative
returns the sign for managerial holdings is correct (negative), but the relation is not significant. If larger managerial holdings make entrenchment easier and entrenchment, by definition, is at the expense of stockholders, the expected result under the managerial entrenchment hypothesis is a significantly negative relation.

Outside directors have credibility as monitors only if there is evidence that firm value is maximized. Under the imperfect information hypothesis, firm value is signalled through earnings. The signal is then used by the market to categorize firms as to whether an antitakeover amendment is firm-value increasing or decreasing. The outside directors have revealed their effectiveness as monitors through the firm's earnings prior to the proposal of the antitakeover amendment. Therefore, among firms that propose antitakeover amendments, outside directors only have credibility in firms that propose amendments the market determines to be firm-value increasing. The higher the proportion of these expert decision makers on the board, the greater the probability that they will make the decisions about operations, projects and takeover negotiations. The value of a firm should increase as the proportion of outside directors increases, as long as the outsiders are credible monitors. As predicted, the coefficient for the proportion of outsiders on the board of directors is significantly \( t = 2.91 \) positive during
the announcement period for firms with positive returns, and very insignificantly \((t = -0.19)\) negative for firms with negative returns. The two coefficients are significantly different \((F_{1, 120} = 25.07, p = 0.000)\). These findings are not consistent with the reputational capital argument of Fama and Jensen (1983). By their argument, the presence of outside directors should always be positively valued because outsiders always act in the best interests of the stockholders.

The results for blockholders in Table 7 also appear to reflect the market's perception of the blockholders' credibility as monitors. Part of the argument about credibility is the same as presented above for outside directors. The coefficients for blockholders are all insignificant in firms that have negative returns in the announcement period. Blockholders seem to have no credibility as monitors in these firms. Significant results are found for firms with positive returns, but blockholders are not homogeneous. Pressure sensitive blockholders, those who have an incentive to support management, have a countervailing effect on pressure insensitive blockholders. When pressure sensitive blockholders dominate, that is, they hold more shares than pressure insensitive blockholders, neither type of blockholdings are significant. Pressure sensitive blockholders do not monitor management. Pressure insensitive blockholders cannot monitor
because they are outvoted by pressure sensitive blockholders. This relationship becomes clearer when the cases in which pressure insensitive blockholders dominate are examined. When pressure insensitive blockholders hold more shares than pressure sensitive blockholders, the coefficient for pressure insensitive blockholders is significant ($t = 5.05$) and positive. These blockholders have the ability to monitor. At the same time, the coefficient for pressure sensitive blockholders is negative and significant ($t = -2.38$). The smaller the number of shares pressure insensitive blockholders have in excess of those held by pressure sensitive blockholders, the less effective pressure insensitive blockholders are as monitors.

Also consistent with the monitoring credibility argument are the differences in coefficients for pressure insensitive blockholders between firms with positive versus negative returns. When pressure insensitive blockholders are dominated, there is no significant difference between coefficients ($F_{1,129} = 2.32, p = 0.13$). When pressure insensitive blockholders dominate, the coefficient for firms with positive returns is significantly greater ($F_{1,129} = 6.13, p = 0.015$).

The increased value of firms with positive returns appears to be attributable, at least in part, to the enhanced negotiating ability of management and to credible monitoring by outside
directors and pressure insensitive blockholders. However, none of the factors have any effect in firms with negative returns. Outside directors and blockholders are not credible monitors in these firms. Management's enhanced ability to fight a takeover does not appear to significantly decrease firm value. In the Stulz (1988) model, if a change in the firm's equity value changes is not attributable to a takeover, the cause must be a change in the expected cash flows from operations. The negative returns are a result of the market's expectation that management, under the protection of an antitakeover amendment, will acquire nonproductive assets that decrease cash flows.

Although the results are significant, this test is conceptually based on the existence of a signal used by investors to determine managerial intent. The evidence presented earlier is consistent with mean return on assets providing at least an imperfect signal. Therefore, one expects to find some results similar to those just presented when the explanatory variables are conditioned on return on assets rather than on the sign of the firm value change. Table 8 presents the results of an ordinary least squares regression similar to equation 5 except that $d_1$ and $d_2$ condition the variables by mean return on assets lower and higher than the sample median, respectively. The results are somewhat consistent with those in Table 7. Unlike
the earlier results, the coefficients for managerial equity holdings for high and low ROA firms are almost identical and both are insignificantly different from 0. The proportion of outside directors is found to be positive and significant for firms with high ROA, and less so, but not significantly, for low ROA firms. The strongest result is the presence of the countervailing effect among blockholders, just as in Table 7. Overall, the results are consistent with mean return on assets being an imperfect signal of management's intent, but strong enough to suggest the presence of a more precise signal used by investors. These results lend credibility to conditioning the variables on the sign of the firm value change, as in Equation 5.

Table 9 provides additional evidence from three multiple logistics regressions. The evidence is consistent with that in Table 7 for managerial equity holdings and the countervailing effect between different types of blockholders. The only inconsistent result is for outside directors. The proportion of outside directors is not significant for firms with nonnegative returns. A possible explanation is that the ordinary least squares result is driven more by the difference in firms with negative and nonnegative returns than by a linear relation within the firms with nonnegative returns.

The final tests examine whether effective monitoring is an additional indicator of management's intent in proposing an
antitakeover amendment. The rationale behind the tests is that the signal used by the market to categorize firms may not be precise in dispelling uncertainty about management's actions in the event of a takeover attempt. Effective monitors prevent management from entrenching, so the presence of credible monitors should help clarify an ambiguous signal.

If outside directors monitor effectively, an outsider dominated board should prevent management from entrenching. Table 10 shows the results of an ordinary least squares regression in which management's holdings are segmented by whether the board is outsider or insider controlled. Table 11 shows the results for management's holdings segmented by the dominant type of blockholder as well as for firms with no blockholders. The only significant result is consistent with credible monitoring by pressure insensitive firms. For firms with positive returns, the coefficient for management's holdings when pressure insensitive firms dominate is weakly significantly greater than for firms with no blockholders or in which pressure sensitive blockholders dominate ($F_{1,126} = 3.01, p = 0.09$). The insignificant results for firms with negative returns is consistent with the argument that outside directors and blockholders are not credible directors in those firms. The lack of a significant difference when controlling for outsider versus
insider controlled boards in firms with positive returns suggests that outside directors serve at the convenience of management. Recalcitrant directors can be removed, so the presence of outsiders does not ensure management will not entrench in the future. Management has no control over pressure insensitive blockholders, so the presence of these blockholders serves as an indicator that management will not entrench.
CHAPTER X

SUMMARY AND CONCLUDING REMARKS

Efforts in the finance literature to explain the motivation behind, and the subsequent effects on firm value of, antitakeover amendments have provided mixed evidence. No consistent evidence has been found that the proposal of such an amendment has any significant effect on firm value. Variables found to be significantly related to the change in firm value in one study are found to be unrelated in another. One possible explanation is that more than one effect is at work, and the effects are offsetting.

The hypothesis put forth here to explain the actions of management and investors in regard to the proposal of an antitakeover amendment is called the imperfect information hypothesis. The rationale behind the hypothesis is that investors do not have perfect information about the firm or the objectives of management.

Investors do not have perfect information about the value of a firm's assets. The opportunity may arise for a raider to acquire an undervalued firm. To preclude such a takeover, management signals the value of the firm through earnings, but
the signal is costly. Long-term, positive net-present-value projects must be foregone. Management can propose an antitakeover amendment as an alternative to the costly signalling. However, an antitakeover amendment also provides management with the opportunity to entrench at the expense of the firm's stockholders. Stockholders discriminate among the proposals to the extent their information allows, but the information is not perfect. Some entrenchment occurs.

The evidence presented is consistent with this hypothesis. Prior to the proposal, growth in earnings per share for firms proposing an antitakeover amendment is significantly higher than earnings growth for a matched control sample of firms that do not propose an amendment. Under the hypothesis, some stockholders use the earnings signal to screen out proposals made by less able managers who have the strongest incentive to entrench. The screen is employed by minimally informed stockholders who hold the majority of voting stock in the firms. The screen is not perfect and some proposals made by entrenching management are approved.

Earnings for the proposing firms drop relative to the control firms after the proposal. During the same period, proposing firms have significantly higher asset growth than the control firms. The decline in earnings and increase in asset growth is consistent with a cessation of signalling by management
and the corresponding acquisition of assets for long-term projects. The same results are consistent with a decline in earnings caused by the acquisition of unproductive assets by entrenching management. Both should occur under this hypothesis.

As expected, no significant change in firm value, on average, is found around the proposal of an antitakeover amendment. However, mean return on assets, another earnings measure, is found to be significant in discriminating between firms by the sign of the announcement effects. This result is consistent with informed investors using an earnings measure to discriminate between entrenching management and firm value maximizing management.

Finally, the effects of management's equity holdings and proxies for monitoring by outside directors and blockholders on the changes in firm value on proposal of an amendment are examined. The effects of these variables differ by the sign of the firms' returns. For firms with nonnegative returns, management's holdings and the proxy for monitoring by some blockholders are significantly positive, while weak evidence is provided for monitoring by outside directors. In these firms, the market appears to expect management's holdings to be employed by management to maximize the value of the firm's equity in the event of a takeover. Also, the market appears to value some blockholders and, to a lesser extent, outside directors as
credible monitors who work to maximize the value of the firm. In firms with negative returns, however, the market does not greatly value outside directors and blockholders as credible monitors, nor does management appear to be firm value maximizing. These findings are consistent with those expected if the market categorizes firms by the earnings signal. An antitakeover amendment is firm value increasing if the signal shows that the firm has maximized its value. Conversely, an antitakeover amendment is firm value decreasing if the signal shows evidence of managerial entrenchment. Neither management nor potential monitors have any credibility in firms in which entrenchment has occurred. Both management and monitors have credibility in value maximizing firms. However, the effects found for outside directors may be attributable to their expertise in choosing projects and negotiating takeovers rather than to their monitoring capabilities. That is, outside directors are only effective if management allows them to remain on the board and values their opinions.

By providing for two sets of firms proposing antitakeover amendments for separate reasons, the imperfect information hypothesis explains the mixed results of previous studies as the average of offsetting effects. The significant results found in this study suggest that this hypothesis furthers our
understanding of the motivation behind and effects of an antitakeover amendment.
Table 1

Frequency Distribution of Proposed Antitakeover Amendments for a Sample of 142 Firms from 1978 to 1986.

<table>
<thead>
<tr>
<th>Year of Proposal</th>
<th>Fair Price Amendments</th>
<th>Supremajority Amendments</th>
<th>Total Amendments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>1</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>1979</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1980</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1981</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>1982</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>1983</td>
<td>31</td>
<td>5</td>
<td>36</td>
</tr>
<tr>
<td>1984</td>
<td>32</td>
<td>4</td>
<td>36</td>
</tr>
<tr>
<td>1985</td>
<td>36</td>
<td>2</td>
<td>38</td>
</tr>
<tr>
<td>1986</td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>Total:</td>
<td>118</td>
<td>24</td>
<td>142</td>
</tr>
</tbody>
</table>
Table 2
Descriptive Statistics for a Sample of 142 Firms Proposing Antitakeover Amendments from 1978 to 1986.

This table describes the firm value, equity ownership structure and board composition for a sample of 142 firms that proposed either a fair-price or supermajority amendment from 1978 through 1986. Firm value is measured in accounting terms (book value) as of the last annual report prior to the proposal. Market value is the number of shares outstanding times the market price per share on the date of the last annual report prior to the proposal. Management's holdings are those for which directors and senior officers have sole or shared voting rights. Blockholders are stockholders holding ≥ 5% of the firm's equity at the time of the proposal. Pressure sensitive blockholders are likely to have lines of business with the firm. All other blockholders are pressure insensitive. Stockholders not classified as management or blockholders are classified as nonblock stockholders.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Max</th>
<th>Min</th>
<th>1st</th>
<th>3rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Value of Assets ($millions)</td>
<td>2579.0</td>
<td>420.0</td>
<td>87685.0</td>
<td>7.0</td>
<td>154.0</td>
<td>2254.0</td>
</tr>
<tr>
<td>Book Value of Equity ($millions)</td>
<td>551.3</td>
<td>208.1</td>
<td>4943.0</td>
<td>-25.2</td>
<td>58.1</td>
<td>593.8</td>
</tr>
<tr>
<td>Market Value of Equity ($millions)</td>
<td>933.0</td>
<td>316.0</td>
<td>11678.0</td>
<td>7.0</td>
<td>81.0</td>
<td>1083.0</td>
</tr>
<tr>
<td>Management Holdings (% of Equity)</td>
<td>11.6</td>
<td>6.5</td>
<td>63.1</td>
<td>0.0</td>
<td>1.6</td>
<td>17.8</td>
</tr>
<tr>
<td>Blockholdings (% of Equity)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure Sensitive</td>
<td>5.2</td>
<td>0.0</td>
<td>79.6</td>
<td>0.0</td>
<td>0.0</td>
<td>7.0</td>
</tr>
<tr>
<td>Pressure Insensitive</td>
<td>4.2</td>
<td>0.0</td>
<td>51.2</td>
<td>0.0</td>
<td>0.0</td>
<td>6.1</td>
</tr>
<tr>
<td>Nonblock Stockholdings (% of Equity)</td>
<td>79.0</td>
<td>82.3</td>
<td>99.9</td>
<td>16.4</td>
<td>69.5</td>
<td>93.6</td>
</tr>
<tr>
<td>Outside Directors (% of Board)</td>
<td>60.9</td>
<td>63.6</td>
<td>93.3</td>
<td>25.0</td>
<td>50.0</td>
<td>71.4</td>
</tr>
</tbody>
</table>
Table 3

Distinguishing Characteristics of Firms Proposing Antitakeover Amendments.

Two logistic regressions are run on a sample of firms consisting of 142 firms that proposed either a supermajority or a fair price amendment, and 142 firms matched to the first 142 by size, fiscal year and industry. None of the second set of 142 firms had proposed an antitakeover amendment. The dependent variable takes the value 1 if the firm proposed an amendment and 0 otherwise. The independent variables are the market-to-book ratio, the compound (geometric) growth in earnings per share, the simple arithmetic mean return on assets, the simple arithmetic mean return on equity, and the compound (geometric) growth rate in book (accounting) value of assets. The market to book ratio is calculated by dividing the market value of a firm's equity by the book (accounting) value at the time of the last annual report in the period. The event is the proposal of an antitakeover amendment. Year 0 is the year of the proposal. The pre-event period is years (-6,-1) and the post-event period is (0,+1). (p-values are in parentheses.)

<table>
<thead>
<tr>
<th></th>
<th>Pre-Event</th>
<th>Post-Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.0246</td>
<td>-0.2004</td>
</tr>
<tr>
<td></td>
<td>(0.9125)</td>
<td>(0.2005)</td>
</tr>
<tr>
<td>Market to Book Ratio</td>
<td>-0.0083</td>
<td>0.0020</td>
</tr>
<tr>
<td></td>
<td>(0.8909)</td>
<td>(0.8400)</td>
</tr>
<tr>
<td>Earnings per Share Growth</td>
<td>3.3615 *</td>
<td>-0.0203</td>
</tr>
<tr>
<td></td>
<td>(0.0025)</td>
<td>(0.8888)</td>
</tr>
<tr>
<td>Mean Return on Assets</td>
<td>-0.1599</td>
<td>-0.1905</td>
</tr>
<tr>
<td></td>
<td>(0.9115)</td>
<td>(0.8750)</td>
</tr>
<tr>
<td>Mean Return on Equity</td>
<td>-0.0027</td>
<td>-0.0110</td>
</tr>
<tr>
<td></td>
<td>(0.7396)</td>
<td>(0.5667)</td>
</tr>
<tr>
<td>Asset Growth</td>
<td>-0.7974</td>
<td>2.0260 **</td>
</tr>
<tr>
<td></td>
<td>(0.4968)</td>
<td>(0.0349) **</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>381.17</td>
<td>387.85</td>
</tr>
<tr>
<td></td>
<td>(0.0001)</td>
<td>(0.0001)</td>
</tr>
</tbody>
</table>

* Significant at α=0.01.
** Significant at α=0.05.
Table 4

Abnormal Returns Around the Proposal of an Antitakeover Amendment.

This table presents cumulative abnormal returns around the announcement that a supermajority or fair-price amendment has been proposed by management for stockholder approval. The announcement date (day 0) is the earlier of the proxy signing date and the day prior to an announcement in the Wall Street Journal. There are 142 firms in the sample. The first data column contains the days for which the returns are calculated. The next two columns contain the number of firms that, during the specified period, had positive and negative cumulative abnormal returns, respectively. The sample median returns for the periods are next presented with the p-values from nonparametric sign tests in parentheses below. The final column contains the sample mean returns with t-values from normal t-tests in brackets below.

<table>
<thead>
<tr>
<th>Days</th>
<th>Number Positive</th>
<th>Number Negative</th>
<th>Median (p-value)</th>
<th>Mean [t-value]</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0,+1)</td>
<td>70</td>
<td>72</td>
<td>-0.0007</td>
<td>0.0019</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.9331)</td>
<td>[0.66]</td>
</tr>
<tr>
<td>(-3,-1)</td>
<td>64</td>
<td>78</td>
<td>-0.0013</td>
<td>-0.0004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.2753)</td>
<td>[-0.17]</td>
</tr>
<tr>
<td>(-20,-1)</td>
<td>72</td>
<td>70</td>
<td>0.0018</td>
<td>-0.0041</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.9331)</td>
<td>[-0.60]</td>
</tr>
<tr>
<td>(-20,+1)</td>
<td>67</td>
<td>75</td>
<td>-0.0062</td>
<td>-0.0021</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.5569)</td>
<td>[-0.27]</td>
</tr>
<tr>
<td>(+1,+20)</td>
<td>72</td>
<td>70</td>
<td>0.0005</td>
<td>0.0098</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.9331)</td>
<td>[1.30]</td>
</tr>
<tr>
<td>(-3,+3)</td>
<td>69</td>
<td>73</td>
<td>0.0001</td>
<td>0.0036</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.8012)</td>
<td>[0.80]</td>
</tr>
<tr>
<td>(-20,+20)</td>
<td>74</td>
<td>68</td>
<td>0.0051</td>
<td>0.0057</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.6748)</td>
<td>[0.52]</td>
</tr>
</tbody>
</table>
Table 5

Discriminant Testing of Cumulative Abnormal Returns Around
the Proposal of an Antitakeover Amendment.

Logistic regressions are used to determine if firm
characteristics can be used to discriminate between firms that
have nonnegative cumulative abnormal returns and those that have
negative returns on proposal of either a supermajority of fair-
price amendment. The dependent variable takes the value 1 when
the firm has nonnegative returns and 0 otherwise. The
independent variables are the market to book ratio, compound
(geometric) earnings per share growth for the six years prior to
the proposal, and the simple arithmetic means for return on
assets and return on equity over the six years prior to the
proposal. The market to book ratio is calculated by dividing the
market value of a firm's equity by the book (accounting) value at
the time of the last annual report prior to the proposal. The
sample size is 142 firms. The announcement date (day 0) is the
earlier of the proxy signing date and the day prior to an
announcement in the Wall Street Journal. (p-values are in
parentheses.)

<table>
<thead>
<tr>
<th></th>
<th>Days</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(-1.3.1)</td>
<td>(0.0.1)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.4871</td>
<td>-0.5516</td>
</tr>
<tr>
<td></td>
<td>(0.136)</td>
<td>(0.110)</td>
</tr>
<tr>
<td>Market to Book Ratio</td>
<td>0.0519</td>
<td>0.0206</td>
</tr>
<tr>
<td></td>
<td>(0.697)</td>
<td>(0.876)</td>
</tr>
<tr>
<td>Earnings per Share Growth</td>
<td>-1.4747</td>
<td>0.3547</td>
</tr>
<tr>
<td></td>
<td>(0.132)</td>
<td>(0.678)</td>
</tr>
<tr>
<td>Mean Return on Assets</td>
<td>-3.9940</td>
<td>7.1498</td>
</tr>
<tr>
<td></td>
<td>(0.156)</td>
<td>(0.040)*</td>
</tr>
<tr>
<td>Mean Return on Equity</td>
<td>-0.0053</td>
<td>0.0072</td>
</tr>
<tr>
<td></td>
<td>(0.556)</td>
<td>(0.479)</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>189.9400</td>
<td>191.3200</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.002)</td>
</tr>
</tbody>
</table>
Table 6

Discriminant Capabilities of Ownership Structure and Board Composition on Proposal of an Antitakeover Amendment.

Logistic regressions are used to determine if firm characteristics can be used to discriminate between firms that have nonnegative cumulative abnormal returns and those that have negative returns on proposal of either a supermajority of fair-price amendment. The dependent variable takes the value 1 when the firm has nonnegative returns and 0 otherwise. The independent variables are management's stockholdings, pressure sensitive blockholdings, pressure insensitive blockholdings, and the proportion of outsiders on the board of directors. Pressure sensitive blockholders are those who may have lines of business with the firm proposing the amendment. All other blockholders are pressure insensitive. The sample size is 142 firms. The announcement date (day 0) is the earlier of the proxy signing date and the day prior to an announcement in the Wall Street Journal. (p-values are in parentheses.)

<table>
<thead>
<tr>
<th></th>
<th>Days</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(-3,-1)</td>
<td>(0,+1)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.5007</td>
<td>-0.8799</td>
</tr>
<tr>
<td></td>
<td>(0.518)</td>
<td>(0.257)</td>
</tr>
<tr>
<td>Management's Holdings</td>
<td>1.8331</td>
<td>0.9536</td>
</tr>
<tr>
<td></td>
<td>(0.185)</td>
<td>(0.486)</td>
</tr>
<tr>
<td>Pressure Sensitive</td>
<td>-1.9421</td>
<td>-1.1130</td>
</tr>
<tr>
<td>Blockholdings</td>
<td>(0.330)</td>
<td>(0.540)</td>
</tr>
<tr>
<td>Pressure Insensitive</td>
<td>0.4959</td>
<td>-1.9243</td>
</tr>
<tr>
<td>Blockholdings</td>
<td>(0.822)</td>
<td>(0.397)</td>
</tr>
<tr>
<td>% Outside Directors</td>
<td>0.2230</td>
<td>1.1789</td>
</tr>
<tr>
<td></td>
<td>(0.843)</td>
<td>(0.397)</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>192.0600</td>
<td>191.1100</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
</tbody>
</table>
Table 7
Tests of Relations Between Abnormal Returns, and Ownership Structure and Board Composition.

Ordinary least squares regressions are used to test for relations between cumulative abnormal returns on proposal of either a supermajority or a fair-price amendment, and management’s equity holdings, blockholdings, and the composition of the board of directors. The model is

\[
\text{CAR}_i = b_0 + d_1 b_1 a_i + d_1 b_2 B + d_3 d_1 b_3 B L_1 + d_4 d_1 b_4 B L_1 + d_5 d_1 b_5 B L_2 + d_6 d_1 b_6 B L_2 + d_7 b_7 a_i + d_8 b_8 B L_1 + d_9 d_2 b_9 B L_1 + d_10 d_2 b_10 B L_1
\]

where \(\text{CAR}_i\) is the cumulative abnormal return for firm \(i\) over the designated period; \(a_i\) is the proportion of firm \(i\)'s equity held by the firm's management; \(B\) is the proportion of outsiders on firm \(i\)'s board of directors; \(B L_1\) is the proportion of firm \(i\)'s equity held by pressure sensitive blockholders, \(B L_2\) is the proportion of firm \(i\)'s equity held by pressure insensitive blockholders, \(d_1\) is a dummy variable that takes the value 1 when \(\text{CAR}_i\) is nonnegative and 0 otherwise, \(d_2\) is a dummy variable that takes the value 1 when \(\text{CAR}_i\) is negative and 0 otherwise, \(d_3\) is a dummy variable that takes the value 1 when \(B L_1 \geq B L_2\) for firm \(i\), and 0 otherwise, \(d_4\) is a dummy variable that takes the value 1 when \(B L_1 < B L_2\) for firm \(i\), and 0 otherwise, and \(e_i\) is the error term. Blockholders are pressure sensitive if they have lines of business with the firm, and pressure insensitive otherwise. The announcement date (day 0) is the earlier of the proxy signing date and the day prior to an announcement in the Wall Street Journal. The sample size is 142 firms. (t-values in parentheses.)
Table 7 - Continued

**Panel 1: Coefficients for firms with nonnegative returns ($d_i = 1$).**

<table>
<thead>
<tr>
<th></th>
<th>Days (-3,-1)</th>
<th>Days (0,1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.85 (-0.73)</td>
<td>-1.45 (-1.48)</td>
</tr>
<tr>
<td>Management's Holdings</td>
<td>-0.53 (-0.23)</td>
<td>5.05* (2.53)</td>
</tr>
<tr>
<td>% Outside Directors</td>
<td>1.19 (0.66)</td>
<td>4.45** (2.91)</td>
</tr>
<tr>
<td>Pressure Sensitive</td>
<td>-1.43 (-0.44)</td>
<td>-0.11 (-0.04)</td>
</tr>
<tr>
<td>Blockholders (Dominating)</td>
<td>-42.75 (-1.71)</td>
<td>-50.25 (-2.38)*</td>
</tr>
<tr>
<td>Pressure Insensitive</td>
<td>22.34 (1.07)</td>
<td>-16.84 (-0.96)</td>
</tr>
<tr>
<td>Blockholders (Dominated)</td>
<td>6.60 (1.67)</td>
<td>16.84** (5.05)</td>
</tr>
</tbody>
</table>

*Significant at $\alpha=0.05$.
**Significant at $\alpha=0.01$.

(Table 7 is continued on the next page.)
Table 7 - Continued

Panel 2: Coefficients for firms with negative returns ($d_2 = -1$).

<table>
<thead>
<tr>
<th></th>
<th>Days</th>
<th>Days</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(-3, -1)</td>
<td>(0, +1)</td>
</tr>
<tr>
<td>Management's Holdings</td>
<td>3.73</td>
<td>-3.18</td>
</tr>
<tr>
<td></td>
<td>(1.15)</td>
<td>(-1.16)</td>
</tr>
<tr>
<td>% Outside Directors</td>
<td>1.04</td>
<td>-0.28</td>
</tr>
<tr>
<td></td>
<td>(0.60)</td>
<td>(-0.19)</td>
</tr>
<tr>
<td>Pressure Sensitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blockholders (Dominating)</td>
<td>-2.20</td>
<td>-1.77</td>
</tr>
<tr>
<td></td>
<td>(-0.56)</td>
<td>(-0.53)</td>
</tr>
<tr>
<td>Pressure Sensitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blockholders (Dominated)</td>
<td>-30.74</td>
<td>-11.89</td>
</tr>
<tr>
<td></td>
<td>(-1.50)</td>
<td>(-0.69)</td>
</tr>
<tr>
<td>Pressure Insensitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blockholders (Dominated)</td>
<td>-5.04</td>
<td>20.11</td>
</tr>
<tr>
<td></td>
<td>(-0.25)</td>
<td>(1.20)</td>
</tr>
<tr>
<td>Pressure Insensitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blockholders (Dominating)</td>
<td>0.32</td>
<td>0.14</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.02)</td>
</tr>
</tbody>
</table>

$R^2$ (adjusted) = 51.8%
Table 8

Tests of Relations Between Abnormal Returns, and Ownership Structure and Board Composition Conditioned on ROA.

Ordinary least squares regressions are used to test for relations between cumulative abnormal returns on proposal of either a supermajority or a fair-price amendment, and management’s equity holdings, blockholdings, and the composition of the board of directors. The model is

\[ \text{CAR}_i = b_0 + d_1 b_2 a_i + d_1 b_2 b_i + d_3 d_1 b_3 B_{L1} + d_4 d_1 b_4 B_{L1} + d_3 d_1 b_5 B_{L2} + d_4 d_1 b_6 B_{L2} + d_2 a_i + d_2 b_6 B_{L} + d_3 d_2 b_7 B_{L1} + d_4 d_2 b_8 B_{L1} + d_3 d_2 b_9 B_{L2} + d_4 d_2 b_{10} B_{L2} + e_i, \]

where \( \text{CAR}_i \) is the cumulative abnormal return for firm \( i \) over the designated period; \( a_i \) is the proportion of firm \( i \)'s equity held by the firm's management; \( B_i \) is the proportion of outsiders on firm \( i \)'s board of directors; \( B_{L1} \) is the proportion of firm \( i \)'s equity held by pressure sensitive blockholders, \( BL_2 \) is the proportion of firm \( i \)'s equity held by pressure insensitive blockholders, \( d_1 \) is a dummy variable that takes the value 1 for firms with lower than the sample median return on assets and 0 otherwise, \( d_2 \) is a dummy variable that takes the value 1 for firms with higher than the sample median return on assets and 0 otherwise, \( d_3 \) is a dummy variable that takes the value 1 when \( B_{L1} \geq B_{L2} \) for firm \( i \), and 0 otherwise, \( d_4 \) is a dummy variable that takes the value 1 when \( B_{L1} < B_{L2} \) for firm \( i \), and 0 otherwise, and \( e_i \) is the error term. Blockholders are pressure sensitive if they have lines of business with the firm, and pressure insensitive otherwise. The announcement date (day 0) is the earlier of the proxy signing date and the day prior to an announcement in the Wall Street Journal. The sample size is 142 firms. (t-values in parentheses.)

(Table 8 is continued on the next page.)
Table 8 - Continued

<table>
<thead>
<tr>
<th></th>
<th>Firms with Lower ROA ($d_1 - 1$)</th>
<th>Firms with Higher ROA ($d_2 - 1$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-3.14</td>
<td>4.49</td>
</tr>
<tr>
<td></td>
<td>(-2.47)</td>
<td>(1.43)</td>
</tr>
<tr>
<td>Management's Holdings Board</td>
<td>4.15</td>
<td>4.49</td>
</tr>
<tr>
<td></td>
<td>(1.41)</td>
<td>(1.43)</td>
</tr>
<tr>
<td>% Outside Directors</td>
<td>3.29</td>
<td>4.83*</td>
</tr>
<tr>
<td></td>
<td>(1.71)</td>
<td>(2.42)*</td>
</tr>
<tr>
<td>Pressure Sensitive Blockholders (Dominating)</td>
<td>-0.93</td>
<td>0.72</td>
</tr>
<tr>
<td></td>
<td>(-0.21)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Pressure Sensitive Blockholders (Dominated)</td>
<td>-0.98</td>
<td>-5.33**</td>
</tr>
<tr>
<td></td>
<td>(-0.27)</td>
<td>(-2.89)**</td>
</tr>
<tr>
<td>Pressure Insensitive Blockholders (Dominated)</td>
<td>0.97</td>
<td>12.27</td>
</tr>
<tr>
<td></td>
<td>(0.48)</td>
<td>(1.88)</td>
</tr>
<tr>
<td>Pressure Insensitive Blockholders (Dominating)</td>
<td>-17.44</td>
<td>18.29**</td>
</tr>
<tr>
<td></td>
<td>(-0.62)</td>
<td>(3.83)**</td>
</tr>
</tbody>
</table>

$R^2$ (adjusted) = 13.1%

* Significant at $\alpha=0.05$.
** Significant at $\alpha=0.01$. 
Table 9

Discriminant Capabilities of Ownership Structure, Board Composition and ROA on Proposal of an Antitakeover Amendment.

Logistic regressions are used to determine if firm characteristics can be used to discriminate between firms by the magnitude of their cumulative abnormal returns on proposal of either a supermajority of fair-price amendment. The first regression tests the total sample of 142 firms. The dependent variable in the first regression takes the value 1 when the firm has nonnegative returns and 0 otherwise. The second and third regressions test the 72 firms with negative cumulative abnormal returns and 70 firms with nonnegative cumulative abnormal returns, respectively. Both subsamples are divided in half by the size of the cumulative abnormal returns. The dependent variable in each regression takes the value 1 for firms in the upper half of returns for the subsample and 0 for the firms in the lower half. The independent variables are management's stockholdings, the difference between pressure insensitive and pressure sensitive blockholdings, the proportion of outsiders on the board of directors and mean return on assets for the five years preceding the proposal. Pressure sensitive blockholders are those who may have lines of business with the firm proposing the amendment. All other blockholders are pressure insensitive. Cumulative abnormal returns are calculated for days (0,+1). The announcement date (day 0) is the earlier of the proxy signing date and the day prior to an announcement in the Wall Street Journal. (p-values are in parentheses.)

(Table 9 is continued on the next page.)
Table 9 - Continued

<table>
<thead>
<tr>
<th></th>
<th>142 Firms Total Sample</th>
<th>72 Firms Negative CARs</th>
<th>70 Firms Nonnegative CARs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.14</td>
<td>-2.48</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(0.16)</td>
<td>(0.05)</td>
<td>(0.99)</td>
</tr>
<tr>
<td>Management’s Holdings</td>
<td>0.82</td>
<td>3.21</td>
<td>5.11</td>
</tr>
<tr>
<td></td>
<td>(0.56)</td>
<td>(0.22)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>% Outside Directors</td>
<td>1.01</td>
<td>3.18</td>
<td>0.12</td>
</tr>
<tr>
<td></td>
<td>(0.38)</td>
<td>(0.08)</td>
<td>(0.95)</td>
</tr>
<tr>
<td>Difference in Blockholdings</td>
<td>1.61</td>
<td>1.96</td>
<td>5.63</td>
</tr>
<tr>
<td></td>
<td>(0.25)</td>
<td>(0.41)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Mean Return on Assets</td>
<td>6.50</td>
<td>5.12</td>
<td>-8.97</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.28)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>188.310</td>
<td>93.58</td>
<td>80.68</td>
</tr>
<tr>
<td></td>
<td>(0.002)</td>
<td>(0.02)</td>
<td>(0.09)</td>
</tr>
</tbody>
</table>
Table 10

A Test of Differences in Relations Between Abnormal Returns and Management’s Equity Holdings, Controlling for Directorships.

An ordinary least squares regression is used to determine if differences in the proportion of outsiders on the boards of directors among firms proposing either a supermajority or fair-price amendment is related to differences in the relation between cumulative abnormal returns around the proposal and management’s equity holdings. The model is

\[ \text{CAR}_i = b_0 + d_6d_1b_1a_i + d_6d_1b_2a_i + d_3d_1b_4BL_1 + d_4d_1b_5BL_1 \]
\[ + d_6d_1b_6BL_2 + d_4d_1b_7BL_2 + d_6d_2b_9a_i + d_6d_2b_9a_i + d_2b_1_0B_i \]
\[ + d_3d_2b_11BL_1 + d_4d_2b_11_2BL_1 + d_3d_2b_11_3BL_2 + d_4d_2b_14BL_2 + e_i, \]

where \( \text{CAR}_i \) is the cumulative abnormal return for firm \( i \) over the designated period; \( a_i \) is the proportion of firm \( i \)'s equity held by the firm's management; \( B \) is the proportion of outsiders on firm \( i \)'s board of directors; \( BL_1 \) is the proportion of firm \( i \)'s equity held by pressure sensitive blockholders; \( BL_2 \) is the proportion of firm \( i \)'s equity held by pressure insensitive blockholders; \( d_1 \) is a dummy variable that takes the value 1 when \( \text{CAR}_i \) is nonnegative and 0 otherwise; \( d_2 \) is a dummy variable that takes the value 1 when \( \text{CAR}_i \) is negative and 0 otherwise; \( d_3 \) is a dummy variable that takes the value 1 when \( BL_1 \geq BL_2 \) for firm \( i \) and 0 otherwise; \( d_4 \) is a dummy variable that takes the value 1 when \( BL_1 < BL_2 \) for firm \( i \) and 0 otherwise; \( d_5 \) is a dummy variable that takes the value 1 when the board of firm \( i \) has \( \leq 50\% \) outside directors and 0 otherwise; \( d_6 \) is a dummy variable that takes the value 1 when the board of firm \( i \) has \( > 50\% \) outside directors and 0 otherwise; and \( e_i \) is the error term. Blockholders are pressure sensitive if they have lines of business with the firm, and pressure insensitive otherwise. The announcement date (day 0) is the earlier of the proxy signing date and the day prior to an announcement in the Wall Street Journal. The specified period is days \((0, +1)\). The sample size is 142 firms. (t-values in parentheses.)

(Table 10 is continued on the next page.)
Table 10 - Continued

<table>
<thead>
<tr>
<th></th>
<th>Firms with Nonnegative Returns $(d_1 = 1)$</th>
<th>Firms with Negative Returns $(d_2 = 1)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.96</td>
<td>0.83</td>
</tr>
<tr>
<td></td>
<td>(-1.63)</td>
<td>(-1.28)</td>
</tr>
<tr>
<td>Management's Holdings</td>
<td>4.06</td>
<td>0.83</td>
</tr>
<tr>
<td>(Outside Dominated Board)</td>
<td>(2.03)*</td>
<td>(0.24)</td>
</tr>
<tr>
<td>Management's Holdings</td>
<td>14.32</td>
<td>-4.49</td>
</tr>
<tr>
<td>(Insider Dominated Board)</td>
<td>(2.80)**</td>
<td>(-1.28)</td>
</tr>
<tr>
<td>% Outside Directors</td>
<td>5.26</td>
<td>1.52</td>
</tr>
<tr>
<td></td>
<td>(2.86)**</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Pressure Sensitive Blockholders</td>
<td>-0.28</td>
<td>-1.55</td>
</tr>
<tr>
<td>(Dominating)</td>
<td>(-0.10)</td>
<td>(-0.47)</td>
</tr>
<tr>
<td>Pressure Sensitive Blockholders</td>
<td>-42.94</td>
<td>-12.34</td>
</tr>
<tr>
<td>(Dominated)</td>
<td>(-2.05)*</td>
<td>(-0.72)</td>
</tr>
<tr>
<td>Pressure Insensitive Blockholders</td>
<td>-20.55</td>
<td>17.67</td>
</tr>
<tr>
<td>(Dominated)</td>
<td>(-1.18)</td>
<td>(1.07)</td>
</tr>
<tr>
<td>Pressure Insensitive Blockholders</td>
<td>14.01</td>
<td>1.09</td>
</tr>
<tr>
<td>(Dominating)</td>
<td>(3.99)**</td>
<td>(0.19)</td>
</tr>
</tbody>
</table>

$R^2$ (adjusted) = 53.6%

* Significant at $\alpha=0.05$.
** Significant at $\alpha=0.01$.  

Table 11

A Test of Differences in Relations Between Abnormal Returns and Management's Equity Holdings, Controlling for Blockholdings.

An ordinary least squares regression is used to determine if differences in blockholdings among firms proposing either a supermajority or fair-price amendment is related to differences in the relation between cumulative abnormal returns around the proposal and management's equity holdings. The model is

$$\text{CAR}_i = \beta_0 + \beta_1 a_i + \beta_2 b_1 a_i + \beta_3 b_2 a_i + \beta_4 b_3 a_i + \beta_5 b_4 a_i + \beta_6 BL_1 + \beta_7 BL_2 + \beta_8 BL_3 + \beta_9 BL_4 + \beta_{10} d_1 + \beta_{11} d_2 + \beta_{12} d_3 + \beta_{13} d_4 + \beta_{14} d_5 + \beta_{15} d_6 + \beta_{16} d_7 + \beta_{17} d_8 + \beta_{18} d_9 + \beta_{19} e_i,$$

where $\text{CAR}_i$ is the cumulative abnormal return for firm $i$ over the designated period; $a_i$ is the proportion of firm $i$'s equity held by the firm's management; $B_1$ is the proportion of outsiders on firm $i$'s board of directors; $BL_1$ is the proportion of firm $i$'s equity held by pressure sensitive blockholders; $BL_2$ is the proportion of firm $i$'s equity held by pressure insensitive blockholders; $d_1$ is a dummy variable that takes the value 1 when $\text{CAR}_i$ is nonnegative and 0 otherwise; $d_2$ is a dummy variable that takes the value 1 when $\text{CAR}_i$ is negative and 0 otherwise; $d_3$ is a dummy variable that takes the value 1 when $BL_1 \geq BL_2$ for firm $i$ and 0 otherwise; $d_4$ is a dummy variable that takes the value 1 when $BL_1 < BL_2$ for firm $i$ and 0 otherwise; $d_7$ is a dummy variable that takes the value 1 when $BL_1 \geq BL_2$ for firm $i$ and 0 otherwise; $d_8$ is a dummy variable that takes the value 1 when $BL_1 < BL_2$ for firm $i$ and 0 otherwise; $d_9$ is a dummy variable that takes the value 1 when firm $i$ has no blockholders and 0 otherwise; and $e_i$ is the error term. Blockholders are pressure sensitive if they have lines of business with the firm, and pressure insensitive otherwise. The announcement date (day 0) is the earlier of the proxy signing date and the day prior to an announcement in the Wall Street Journal. The specified period is days $(0, +1)$. The sample size is 142 firms. (t-values in parentheses.)

(Table 11 is continued on the next page.)
Table 11 - Continued

<table>
<thead>
<tr>
<th></th>
<th>Firms with Nonnegative Returns</th>
<th>Firms with Negative Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( (d_1 = 1) )</td>
<td>( (d_2 = 1) )</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-0.99</td>
<td>(-0.96)</td>
</tr>
<tr>
<td><strong>Management's Holdings</strong></td>
<td>8.39**</td>
<td>-3.55</td>
</tr>
<tr>
<td>(Pressure Insensitive</td>
<td>( (3.01) )</td>
<td>(-0.54)</td>
</tr>
<tr>
<td>Blockholders Dominate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Management's Holdings</strong></td>
<td>0.98</td>
<td>-0.39</td>
</tr>
<tr>
<td>(Pressure Sensitive</td>
<td>( (0.27) )</td>
<td>(-0.10)</td>
</tr>
<tr>
<td>Blockholders Dominate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Management's Holdings</strong></td>
<td>2.95</td>
<td>-6.10</td>
</tr>
<tr>
<td>(No Blockholders)</td>
<td>( (0.88) )</td>
<td>(-1.67)</td>
</tr>
<tr>
<td><strong>% Outside Directors</strong></td>
<td>3.94*</td>
<td>-0.74</td>
</tr>
<tr>
<td></td>
<td>( (2.49) )</td>
<td>(-0.49)</td>
</tr>
<tr>
<td>**Pressure Sensitive</td>
<td>0.46</td>
<td>-4.34</td>
</tr>
<tr>
<td>Blockholders (Dominating)</td>
<td>( (0.16) )</td>
<td>(-1.09)</td>
</tr>
<tr>
<td>**Pressure Sensitive</td>
<td>-51.79*</td>
<td>-12.58</td>
</tr>
<tr>
<td>Blockholders (Dominated)</td>
<td>( (-2.45) )</td>
<td>(-0.70)</td>
</tr>
<tr>
<td>**Pressure Insensitive</td>
<td>-6.51</td>
<td>16.68</td>
</tr>
<tr>
<td>Blockholders (Dominated)</td>
<td>( (-0.33) )</td>
<td>(0.98)</td>
</tr>
<tr>
<td>**Pressure Insensitive</td>
<td>14.08**</td>
<td>-0.73</td>
</tr>
<tr>
<td>Blockholders (Dominating)</td>
<td>( (3.80) )</td>
<td>(-0.12)</td>
</tr>
</tbody>
</table>

\[ R^2 \text{ (adjusted)} = 51.9\% \]

*Significant at \( \alpha=0.05 \).
**Significant at \( \alpha=0.01 \).
REFERENCES


