

## **BOARD STRUCTURE, ANTITAKEOVER PROVISIONS, AND STOCKHOLDER WEALTH**

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*This paper's regression analyses from a sample of 261 firms that adopted 486 antitakeover provisions (supermajority, classified boards, fair-price, reduction in cumulative voting, anti-greenmail and poison pills) in the 1984–88 period indicate that the negative market reactions to antitakeover provisions vary depending on firms' board structures. This paper's empirical evidence indicates that while separating the positions of CEO and chairperson of the board reduces the negative effect, increased outsider representation increases negative market reactions. © 1997 by John Wiley & Sons, Ltd.*

Researchers have increasingly used agency theory to study problems arising from the separation of ownership and control in public corporations. Particular attention has been paid to the role of alternative governance mechanisms in reducing these problems (Beatty and Zajac, 1994; Eisenhardt, 1989; Kosnik, 1987; Rediker and Seth, 1994; Singh and Harianto, 1989a; Walsh and Seward, 1990).

An important external mechanism believed to attenuate poor managerial performance is the (takeover) market for corporate control (Manne, 1965). The basic position is that the firm will be undervalued by the market when managers are slow to recognize changes in the environment and modify strategies too slowly, or when managers follow inappropriate strategies which serve mainly to promote their self-interests (Jensen and Meckling,

1976). Such undervalued firms become prime takeover targets, enabling incumbent management to be displaced to make way for a new management team and subsequent changes in strategy.

Many corporate managements responded to the active takeover market of the 1980s by adopting takeover defenses, including antitakeover provisions. These provisions, which include poison pill adoptions and antitakeover amendments to a company's corporate charter, can increase the bargaining power of incumbent corporate management and restrict the market for corporate control. Hence, considerable controversy surrounds the adoption of antitakeover provisions.

The adoption of antitakeover provisions has already received some research attention. A primary focus has been on the effects of antitakeover provisions on shareholder value, as reflected by the stock market reaction to announcements concerning takeover defense activity (DeAngelo and Rice, 1983; Jarrell and Poulsen, 1987; Malatesta and Walkling, 1988; Ryngeart, 1988). Several

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studies indicate that the market reacts negatively to the adoption of antitakeover provisions, particularly to those provisions adopted during the takeover wave of the 1980s (Mahoney and Mahoney, 1993).

While prior empirical research has been useful in indicating that the market reacts negatively to several antitakeover provisions, it does not provide insight on how other governance mechanisms suggested by agency theory affect the market reactions to takeover defenses. Studies thus far examine the wealth effects of antitakeover provisions, viewing the influence of the market for corporate control as independent of other governance mechanisms suggested by agency theory. This independence assumption may be a problem since recent work indicates that alternative governance mechanisms may substitute for, or enhance, the takeover market, even though they cannot completely compensate for the absence of an active takeover market (Rediker and Seth, 1995). For instance, the presence of a strong corporate board can reduce conflict of interests between shareholders and managers, mitigating the need for the operation of the takeover market. In such a case, takeover defenses adopted by firms with strong boards can elicit less negative reactions than those adopted by firms with weak boards where both the internal and external governance mechanisms are failing to reduce conflict of interests.

This study therefore builds on prior work on market reactions to antitakeover provisions by incorporating the influence of an internal governance mechanism, the corporate board. This paper specifically tests the proposition that a strong board is likely to reduce the negative wealth effects associated with the adoption of antitakeover provisions. The impacts of composition and leadership structure of the board on market reactions to the adoption of several antitakeover provisions are studied. The antitakeover provisions are described in the Appendix.

## **BOARD STRUCTURE AND MARKET REACTIONS TO ANTITAKEOVER PROVISIONS**

Within the context of agency theory, a critical internal mechanism for limiting managerial inefficiencies is the corporate board of directors

(Zahra and Pearce, 1989). The corporate board's primary responsibility is one of control. More specifically, the board's responsibility is to ensure that management engages in activities that maximize shareholder value. In order to fulfill this fiduciary responsibility, the board possesses the power to hire, fire, and compensate top management, and to ratify important decisions.

Since antitakeover provisions are board-level decisions, the market reactions to these actions are likely to be influenced significantly by its perception of the board's ability to protect shareholders' interests (Hoskisson and Turk, 1990; Kosnik, 1990; Lorsch and MacIver, 1989; Mizuchi, 1983; Williamson, 1985). Independence of the board from corporate management is important in enabling the board to perform its fiduciary responsibility. Two structural attributes of the corporate board are believed to reflect this independence: board composition and board leadership structure. These attributes are examined and their impacts on market reactions to antitakeover provisions are hypothesized.

### **Board composition**

Board composition involves the mix of inside directors (those employed by the organization in other capacities) and outside directors (Baysinger and Butler, 1985). Greater outsider representation is often advocated since outside directors are likely to be more objective in monitoring management actions than inside directors (Beatty and Zajac, 1994; Fama and Jensen, 1983a, 1983b; Gibbs, 1993; Johnson, Hoskisson, and Hitt, 1993; Pearce and Zahra, 1992; Schellenger, Wood, and Tashakori, 1989).

Even though the impact of increased outsider representation on the outcome of board actions is less clear (Cochran, Wood, and Jones, 1985; Kosnik, 1987; Singh and Harianto, 1989a; Wade, O'Reilly, and Chandratat, 1990), the appointment of outside directors is used to signal the monitoring potential of the board (Weisbach, 1988). For instance, Hermalin and Weisbach (1988) find outsiders are appointed to the board following poor firm performance as measured by stock returns. Ostensibly, outside directors are appointed since poor performance is an indication of poor management and a lack of adequate monitoring. The appointment of outside directors also serves as a signal to the market that the board's monitoring

capacity is being strengthened. Evidence of a significant positive share price reaction to the appointment of outside directors indicates that the market responds favorably to such appointments (Rosenstein and Wyatt, 1990).

Market reactions to antitakeover provisions adopted by firms with stronger boards are likely to be viewed less unfavorably than those adopted by firms with weaker boards since monitoring by outside members can be a partial substitute for the market for corporate control. For instance, Brickley, Coles and Terry (1994) provide evidence that the enactment of poison pills leads to a positive stock price reaction when the majority of the board consists of outsiders, and a negative stock price reaction when the majority of the board consists of insiders. This evidence suggests that outside directors are perceived to serve the interests of shareholders. Brickley and James (1987) find that outsider-dominated boards of banks located in states which restrict acquisitions (where no market for corporate control disciplines management teams) control managerial consumption of perquisites, indicating that monitoring by a strong board may substitute for that of the takeover market.

An alternative argument leading to the same hypothesis is that a majority of outsiders may create a situation where too much risk is transferred to managers. Managers, without protection, may reduce their time horizon and focus on strategies that are overly risk averse and not optimal for stockholder wealth (Baysinger, Kosnik, and Turk, 1991). In this situation, antitakeover provisions may be a counterbalancing device to allow managers to take a longer view (Baysinger and Hoskisson, 1990). Thus, market reaction to antitakeover provisions adopted by corporate boards with a greater proportion of outsiders is likely to be less negative. This discussion leads to the following hypothesis:

*Hypothesis 1: The market is likely to react less negatively to antitakeover provisions adopted by boards with a greater proportion of outsiders on the board than to those adopted by boards with a lower proportion of outsiders.*

### **Board leadership**

A reform measure strongly advocated by some governance researchers is the separation of the

chairperson of the board and CEO positions either in general or within a contingency framework (Finkelstein and D'Aveni, 1994; Kesner and Johnson, 1990; Rechner and Dalton, 1989). The logic of this recommendation rests on the notion that when the CEO and chairperson positions are held by one individual, the board's ability to function effectively as a governance mechanism is severely curbed. In serving simultaneously as CEO and chairperson, a CEO will likely have greater stature and influence among board members (Harrison, Torres, and Kukalis, 1988), thus hampering the board's independent monitoring capacity (Beatty and Zajac, 1994). The chairperson of the board is responsible for setting the board agenda, scheduling regular and special stockholder meetings, and *monitoring* board committees. These duties provide the chairperson with considerable power to monitor management actions. If the CEO is vested with this power, the board's governing and independent auditing capacity are almost certainly compromised. Therefore, some scholars suggest that the separation of CEO and chairperson of the board helps to align the interests of directors and stockholders, likely improving board governance (Baysinger and Hoskisson, 1990; Hoskisson and Turk, 1990; Kosnik, 1987).

There is some evidence that separation of the CEO and chairperson of the board has a positive impact on corporate board actions and firm performance (Daily and Dalton, 1994; Mallette and Fowler, 1992; Pi and Timme, 1993; Rechner and Dalton, 1991).<sup>1</sup> Moreover, in the recent past, stockholder activists have pushed for a separation of CEO and chairperson positions in several underperforming companies, such as General Motors, as a means to restore the firm's credibility with investors. If the separation of powers can signal to stockholders the ability of the board to protect stockholders' interests, then arguably antitakeover provisions adopted by such a board may be viewed more favorably relative to antitakeover provisions adopted by boards with a combined CEO-chairperson.

Vesting powers relating to the chairperson posi-

<sup>1</sup> However, several other studies have found performance and separate CEO/chairperson to be unrelated (e.g., Baliga, Moyer, and Rao, 1996; Brickley, Coles, and Jarrell, 1995; Chaganti, Mahajan, and Sharma, 1985; Daily and Dalton, 1992).

tion with the CEO already provides the protection needed to encourage the CEO to make firm-specific capital investments and appropriate long-term investments. Additional power to corporate managements provided by antitakeover provisions, in the case of firms where the CEO and chairperson positions are held by one individual, may be viewed by the market as further entrenching managements. On the other hand, when the two positions are split, the market is likely to view the adoption of antitakeover provisions as less entrenching. This logic leads to the second hypothesis:

*Hypothesis 2: The market is likely to react more negatively to antitakeover provisions adopted by boards chaired by the CEO than to antitakeover provisions adopted by boards not chaired by the CEO.*

## METHOD

### Sample

This paper's sample includes 261 *Standard and Poor's (S&P) 500* firms (as of 1986) that adopted 486 antitakeover provisions for the 1984–88 period. In this period, the takeover wave of the 1980s peaked (Davis and Stout, 1992). Also, the sample begins in 1984 to mark the initial adoption of the poison pill. In terms of individual provisions, the sample includes 20 supermajority amendments, 106 classified board amendments, 110 fair-price amendments, 21 provisions for reduction in cumulative voting, 33 anti-greenmail provisions, and 196 poison pill provisions.

Antitakeover provisions data were obtained from the Investor Responsibility Research Center's (IRRC) publication (Rosenbaum, 1987, 1989). The IRRC is a Washington-based non-profit organization that currently, among other activities, follows the antitakeover proposals of 1500 of the largest American corporations, measured in terms of annual sales.<sup>2</sup> The accuracy of

IRRC's data is high with respect to corporate charter antitakeover provisions (Pound, 1992: 663).

### Measures

#### *Dependent variable*

The dependent variable is the market reactions or the cumulative average abnormal returns (CARs) earned by shareholders accompanying the adoption of antitakeover provisions. The abnormal return, estimated using the standard event study methodology extensively used in financial economics, is the difference between the observed return and the normal return as predicted by the capital asset pricing model (CAPM). The security market rates of return utilized in testing are taken from the CRSP (Center for Research in Security Prices, University of Chicago) daily file for firms listed on the New York Stock Exchange, the American Stock Exchange and the National Association of Security Dealers.

For determining the cumulative abnormal returns, the choice of the 'event date' is important (Brown and Warner, 1985). The first public release of the information needs to be used. Unlike many other corporate events, antitakeover proposals are rarely reported by the press (Agrawal and Mandelker, 1990: 149). The first public release of information about these proposals occurs when the firm mails the proxy statement containing the proposal to stockholders. The proxy statement mailing date is therefore utilized as the best available estimate of the date of the first public announcement of antitakeover amendment consideration (Jarrell and Poulsen, 1987). Once the announcement is made, the uncertainty regarding stockholder approval is slight. IRRC reports that some companies employ proxy solicitation firms to assess the voting outcome of a proposed amendment before proposing it to shareholders. If proposing an amendment that fails is expensive, managers will not propose amendments with a high failure probability. In our sample years of 1984–88, over 95 percent of proposed antitakeover amendments received stockholder approval (Rosenbaum, 1987, 1989).

In this study's sample, 36 announcements are located in the *Wall Street Journal Index* before the proxy mailing date. For these 36 announcements, this earlier date is used as the announce-

<sup>2</sup> Since the IRRC publication follows the larger firms, most of the firms in the current paper's sample are traded on the NYSE and AMEX. Therefore, few firms in this paper's sample are traded on NASDAQ: 4 of the 196 firms adopting poison pills and 15 of the 185 firms adopting other antitakeover provisions were traded on NASDAQ. Since these firms comprise only 5 percent of this paper's sample, the empirical results are robust to the decision to include them.

ment date. Finally, for poison pills which have no corresponding proxy statements since stockholder approval is not required, the first public announcement date was taken from *Corporate Control Alert*, which reports the date that shareholders were notified that the board decided to adopt a poison pill provision.

This paper considers an event window of 50 days before the proxy mailing date (-50) to 5 days following the proxy mailing date (+5). An average of 27 trading days (and a median of 24) separates the board meeting date (when an amendment is passed) from the proxy mailing date (Linn and McConnell, 1983). Although it is against SEC rules to solicit votes before the proxy mailing date, the possibility remains that the board decision to propose antitakeover amendments is leaked to some market participants. The market returns in the -40 to -20 interval roughly surround the board meeting date. If one holds to the (semistrong or strong form) efficient market hypothesis, then a longer event window is not only justified but arguably essential because new information concerning antitakeover provisions is being received by the market throughout this time period. Similar event windows are used in several other studies on antitakeover provisions (Agrawal and Mandelker, 1990; DeAngelo and Rice, 1983; Jarrell and Poulsen, 1987).

A time period of 50 days before the proxy mailing date is chosen to ensure the inclusion of the board meeting date. A time period of 5 days after the proxy mailing date is considered a sufficient time period for the market to react fully to the antitakeover provision. Larcker (1983) finds significant market reaction around the date that the SEC receives the proxy, the so-called 'SEC stamp date.' Brickley, Bhagat, and Lease (1985) find that the SEC stamp date falls, on average, 3.2 days (median of 3.0 days) after the proxy mailing date. Therefore, the event windows for the current paper are intended to give the market sufficient time to react to various possible sources of the announcement of the antitakeover provision adoption.

#### *Independent variables*

The independent monitoring of the board is measured in three ways. The first is the proportion of outsiders (not current or previous executives of the firm or its subsidiaries) on the board

[OUTSIDER PERCENTAGE]. Second, the proportion of outside members who were not appointed during the incumbent CEO's tenure on the corporate board is used as a more fine-grained measure of outsiders' independence [PRE-CEO OUTSIDER PERCENTAGE] (Boeker, 1992; Wade *et al.*, 1990; Westphal and Zajac, 1994). Since the independence of outside members can depend on who appointed them to the board, those members not appointed during the current CEO's tenure are likely to be less dependent on the CEO and current management. Third, leadership of the board is coded as a dummy variable [SEPARATE CEO/CHAIRPERSON]: 1, if the CEO and chairperson of the board are held by different individuals and 0, if they are held by the same individual. Data on both board composition and leadership were obtained from proxy statements.

#### *Control variables*

Market reactions to antitakeover provisions can depend on managerial stock ownership. Corporate governance researchers argue that in the case of firms with high managerial stock ownership, negative stock reaction associated with reduction in perceived probability of a successful takeover is higher than the positive reaction associated with increased bargaining power (Stulz, 1988). McWilliams (1990) finds that firms with greater insider holdings experienced more negative returns. Other empirical studies, however, find no significant impact for insider holdings (Agrawal and Mandelker, 1990; Jarrell and Poulsen, 1987; Lauterbach, Malitz, and Vu, 1991). In the current paper, INSIDER OWNERSHIP, found in proxy statements, is measured as percentage of equity held by inside board members including the CEO. This measure is meant as a proxy for the economic alignment of management with other shareholders (Bethel and Liebeskind, 1993; Kosnik, 1990; Malatesta and Walkling, 1988; Sundaramurthy, 1992).

The level of INSTITUTIONAL OWNERSHIP may also have an impact on stock reactions to antitakeover proposals (Brickley, Lease, and Smith, 1994). Large institutional investors have more at stake in the firm, and thus their optimal monitoring expenses will increase the probability of institutional investors uncovering the intended motive for the antitakeover provision (Allen,

1993; Kochhar and Parthiban, 1996). Consequently, it is expected that the negative stockholder wealth effect of antitakeover proposals will be less for firms with larger institutional ownership (Agrawal and Mandelker, 1990; Brickley, Lease, and Smith, 1988; Jarrell and Poulsen, 1987). Therefore, the current paper controls for institutional stock ownership. Institutional stock ownership is measured as a percentage of total equity (Chaganti and Damanpour, 1991; Davis and Thompson, 1994; Graves, 1988; Hansen and Hill, 1991). Data on institutional ownership are obtained from the *Standard and Poor's Stock Guide* in the month-end prior to the antitakeover provision announcement.

Size is included as a control variable since antitakeover provisions may be particularly effective for discouraging takeovers of large firms (Agrawal and Mandelker, 1990). If size [MARKET VALUE OF EQUITY] is not controlled for, then a correlated variable (such as insider ownership or institutional ownership) may appear significantly related to the antitakeover provision, but the relationship would be purely spurious.

Lang, Stulz, and Walkling (1989) show that firms with high book equity/market equity gain the most in tender offers, and therefore have the most to lose if a firm's managers initiate an antitakeover provision in order to entrench themselves. Due to this relationship, firms with high book/market value will in general suffer the greatest losses from the passage of antitakeover provisions. The inclusion of the book equity/market equity [EQUITY BOOK/MARKET] controls for this effect. The market value of equity is determined using CRSP's shares outstanding and stock price. Book value of equity is taken from COMPUSTAT, using the (fiscal) year-end prior to the announcement of the antitakeover provision.

This paper also controls for whether the firm passing an antitakeover provision was rumored to be a target [TAKEOVER INDICATOR], according to the *Wall Street Journal Index* (Singh and Harianto, 1989b). Previous research finds that firms under takeover threat experienced more negative stock price reactions to the announcement of antitakeover provisions (Lauterbach *et al.*, 1991; Ryngaert, 1988).

To control for the year of adoption of provisions (1984–88), four dummy variables are

used [IND85, IND86, IND87, and IND88 for measures adopted in 1985–88, respectively]. The stock price effect in 1984 is captured in the intercept term. Mahoney and Mahoney (1993) found time-effects in that the market reacted more negatively to provisions adopted in the 1980s than to those adopted earlier. Extending this logic, one would expect the effects of the four dummy variables to be negative and significant.

Two additional control variables obtained from the IRRC data base are used: the number of provisions that the firm had adopted before the current provision [NUMBER PREVIOUSLY ADOPTED], and the number of provisions adopted along with the current provision [NUMBER CURRENTLY ADOPTED]. It is possible that the market may react more negatively to provisions adopted by a firm that has several other provisions in place. Similarly, the market may react more negatively to provisions adopted simultaneously in the same proxy year than to those adopted individually.

Finally, two dummy variables are used to control for the effects of the type of antitakeover provision. One captures the effects of the proposal of only corporate charter amendments [NON-POISON PILL INDICATOR]. The second captures the effects of the combination of a poison pill and corporate charter amendments [MIXED INDICATOR]. Finally, the effects of a poison pill exclusively are captured in the intercept term. Consistent with the logic of Walsh and Seward (1990), it is posited that stockholders are likely to react more negatively to poison pills than to other provisions. Thus, one would expect the coefficient on the NON-POISON PILL INDICATOR to be positive and significant. No specific prediction is made for MIXED INDICATOR.

### *Empirical analysis*

To test the relationship between board structure and market reactions to the adoption of antitakeover provisions, the standardized cumulative average abnormal returns (CARs) of firms in the sample are regressed on board composition, leadership, and control variables. Methodologies based on the market model using ordinary least squares (OLS) and using standard parametric tests are well specified under a variety of conditions for daily stock return data (Brown and Warner, 1985; Peterson, 1989).

The functional form of the regression is expressed in the following equation:

$$\begin{aligned} \hat{CAR}_{-50,5} = & \beta_0 + \beta_1 \text{ OUTSIDER PERCENTAGE} \\ & + \beta_2 \text{ PRE-CEO OUTSIDER PERCENTAGE} \\ & + \beta_3 \text{ SEPARATE CEO-CHAIRPERSON} \\ & + \beta_4 \text{ INSIDER OWNERSHIP} \\ & + \beta_5 \text{ INSTITUTIONAL OWNERSHIP} \\ & + \beta_6 \text{ MARKET VALUE OF EQUITY} \\ & + \beta_7 \text{ EQUITY BOOK/MARKET} \\ & + \beta_8 \text{ TAKEOVER INDICATOR} \\ & + \beta_9 \text{ IND85} \\ & + \beta_{10} \text{ IND86} \\ & + \beta_{11} \text{ IND87} \\ & + \beta_{12} \text{ IND88} \\ & + \beta_{13} \text{ NUMBER PREVIOUSLY ADOPTED} \\ & + \beta_{14} \text{ NUMBER CURRENTLY ADOPTED} \\ & + \beta_{15} \text{ NON-POISON PILL INDICATOR} \\ & + \beta_{16} \text{ MIXED INDICATOR} \end{aligned}$$

## RESULTS

This paper regresses the cross-sectional variation in the stock price reaction on the independent variables described above. The correlations of independent variables are reported in Table 1. The correlations reported in Table 1 indicate that multicollinearity between outside board membership and separate CEO/chairperson of the board indicator is not a problem in the sample. However, the outsider percentage and the pre-CEO outsider percentage are significantly negatively related. In addition, significant multicollinearity is found among the control variables. Therefore, several specifications for the regressions were implemented to ensure the robustness of our results to this multicollinearity. Table 2 reports the results of the complete model used in the regression analyses which are used to test Hypotheses 1 and 2.<sup>3,4</sup>

<sup>3</sup> For the current sample, significantly negative CARs and fraction negative for the entire sample at the 0.01 level using a two-tailed test are robust to various event windows (e.g., (-50, +5), (-10, +5), (-2, +5)). For poison pills, significantly negative CARs and fraction negative at the 0.01 level using a two-tailed test are robust to various windows (e.g., (-50, +5), (-10, +5), (-5, +5)). There were mixed empirical results testing Walsh and Seward's (1990) prediction that poison pills will have significantly greater negative stock price reactions than nonoperating antitakeover amendments that require stockholder approval (e.g., supermajority amendments, classified board provisions, fair-price amendments, reduction in cumulative voting, and anti-greenmail provisions). *While this*

## Significance of coefficients on the independent variables

From Hypothesis 1, it is expected that the market reacts less negatively to provisions adopted by boards with a greater proportion of outsiders. However, as reported in Table 2, contrary to Hypothesis 1, both measures of outsiders' independence indicate that a greater proportion of (purportedly more independent) outside board members leads to a *more* negative stock reaction to antitakeover provisions.<sup>5</sup>

The results provide support for Hypothesis 2. The market is likely to react more negatively to antitakeover provisions adopted by boards chaired by the CEO than to antitakeover provisions adopted by boards not chaired by the CEO.<sup>6</sup>

## Significance of the coefficients on the control variables

Inclusion of the control variables leads to several interesting results. Inside ownership and institutional ownership appear to have no (linear) relationship with stock price reaction to antitakeover provisions. This paper's result of no statisti-

*prediction is supported for smaller event windows, it did not hold for the (-50, +5) window.* One could argue that the market reaction to the poison pill is not greater because for many firms other antitakeover provisions are already in place. However, Ryngaert (1988) finds that the stock price effect of the poison pill is not significantly influenced by the existence of an antitakeover provision. Details on the robustness of results to various methodological specifications are available from the authors upon request.

<sup>4</sup> In cross-sectional regressions of residuals on firm-specific independent variables, some authors (e.g., Brickley, Coles and Terry, 1994) use the standardized residuals while others (e.g., McWilliams, 1990) use the unstandardized residuals. The current paper reports the results from the standardized residual regressions, and the tests were rerun using the unstandardized residuals, with and without adjusting for heteroskedastic error terms (White, 1980). The signs and significance levels of the coefficients were virtually identical under all methodologies. Since the dependent variable is the *standardized residual* from the market model, the interpretation of the *magnitude* of the coefficient relies more on a statistical interpretation than an economic interpretation.

<sup>5</sup> All results in Table 2 including the negative effects of OUTSIDER PERCENTAGE were robust to the inclusion or exclusion of its significantly correlated independent variable PRE-CEO OUTSIDER PERCENTAGE.

<sup>6</sup> Because poison pills differ significantly from antitakeover charter amendments in the sense that poison pills do not require shareholder approval, we ran the analysis with only firms amending their corporate charter. The results with respect to board structure variables are robust to the inclusion or exclusion in the sample of the poison pills.

Table 1. Correlation matrix of independent variables in (except for the dummy variables) model the regression

$$\begin{aligned} \text{C}\hat{\text{A}}\text{R}_{-50.5} = & \beta_0 + \beta_1 \text{ OUTSIDER PERCENTAGE} + \beta_2 \text{ PRE-CEO OUTSIDER PERCENTAGE} \\ & + \beta_3 \text{ SEPARATE CEO/CHAIRPERSON} + \beta_4 \text{ INSIDER OWNERSHIP} \\ & + \beta_5 \text{ INSTITUTIONAL/OWNERSHIP} + \beta_6 \text{ MARKET VALUE OF EQUITY} \\ & + \beta_7 \text{ EQUITY BOOK/MARKET} + \beta_8 \text{ TAKEOVER INDICATOR} \\ & + \beta_9 \text{ IND85} + \beta_{10} \text{ IND86} + \beta_{11} \text{ IND87} + \beta_{12} \text{ IND88} \\ & + \beta_{13} \text{ NUMBER PREVIOUSLY ADOPTED} + \beta_{14} \text{ NUMER CURRENTLY ADOPTED} \\ & + \beta_{15} \text{ NON-POISON PILL INDICATOR} + \beta_{16} \text{ MIXED INDICATOR} \end{aligned}$$

The first number represents the estimated correlation, the second number represents the  $p$ -value under the hypothesis of zero correlation, and the third number represents the sample size

	Mean	S.D.	1.	2.	3.	4.	5.	6.	7.	8.
1. Outside percentage	0.687	0.142	1.000 0.0 486	-0.362 0.001 486	-0.088 0.055 474	0.011 0.817 483	0.050 0.274 471	-0.142 0.002 486	0.117 0.012 466	0.045 0.322 486
2. Pre-CEO outsider percentage	0.515	0.208		1.000 0.0 486	0.215 0.001 474	0.009 0.851 483	0.008 0.864 471	-0.017 0.708 486	0.015 0.739 466	0.070 0.122 486
3. Separate CEO/Chairperson	0.184	0.388			1.000 0.0 474	0.029 0.524 473	-0.022 0.641 461	-0.052 0.261 474	0.037 0.426 456	-0.044 0.341 474
4. Insider ownership	3.65	9.46				1.000 0.0 483	0.020 0.671 471	-0.108 0.018 483	-0.108 0.020 466	0.013 0.774 483
5. Institutional ownership	43.32	18.63					1.000 0.0 471	-0.065 0.158 471	0.052 0.268 456	0.006 0.897 471
6. Market value of equity (\$ millions)	3082	3110						1.000 0.0 486	-0.172 0.0002 466	-0.110 0.016 486
7. Equity book-to-market	0.703	0.335							1.000 0.0 466	-0.031 0.506 466
8. Takeover indicator	0.135	0.342								1.000 0.0 486

cally significant stock price effect of inside ownership and institutional ownership is consistent with the findings of Jarrell and Poulsen (1987), Agrawal and Mandelker (1990) and Lauterbach *et al.* (1991) but runs counter to the findings of McWilliams (1990).

Large firms (where agency problems may be greater) receive a more negative (and statistically significant) stock market response upon adoption of antitakeover provisions. This empirical result

suggests that the market may regard antitakeover provisions adopted by large firms to be particularly effective in lowering the probability of a takeover.

Firms with larger book equity/market equity (and therefore probably performing poorly due to inefficiency) also receive a more negative (and statistically significant) stock market reaction upon adoption of antitakeover provisions. These firms empirically have the most to gain (via

Table 2. Regression of stock price reaction to firm characteristics.

Independent variables	Parameter estimate	t-statistic
$\beta_0$ : Intercept	1.680	3.23***
$\beta_1$ : Outsider percentage (fraction of <i>outside</i> board members)	-1.544	-3.54***
$\beta_2$ : Pre-CEO outsider percentage (fraction of outsiders hired before CEO)	-0.544	-1.81*
$\beta_3$ : Separate CEO/chairperson indicator (= 1 if separate, = 0 otherwise)	0.338	2.21**
$\beta_4$ : Insider ownership (percent of equity)	-0.001	-0.22
$\beta_5$ : Institutional ownership (percent of equity)	0.000007	0.00
$\beta_6$ : Market value of equity	-0.00007	-3.27***
$\beta_7$ : Equity book/market	-0.550	-3.09***
$\beta_8$ : Takeover indicator (= 1 if firm has received or rumored to receive bid, = 0 otherwise)	0.202	1.14
$\beta_9$ : Indicator for 1985	-0.368	-1.90*
$\beta_{10}$ : Indicator for 1986	-0.292	-1.36
$\beta_{11}$ : Indicator for 1987	-0.360	-1.45
$\beta_{12}$ : Indicator for 1988	-0.233	-0.94
$\beta_{13}$ : Number of previously adopted provisions	0.036	0.46
$\beta_{14}$ : Number of concurrently adopted provisions	0.130	1.24
$\beta_{15}$ : Indicator for non-poison pill provisions only	-0.050	-0.28
$\beta_{16}$ : Indicator for combination of poison pill and non-poison pill provisions	0.026	0.10
Adjusted $R^2$		0.06
F-value for regression		2.63***

In order to find what characteristics of firms affect stock price reaction, the standardized cumulative average abnormal returns of firms in this paper's sample are regressed on observable firm characteristics.

\*Parameter is significantly different from zero at the 10% level, using a two-tailed test.

\*\*Parameter is significantly different from zero at the 5% level, using a two-tailed test.

\*\*\*Parameter is significantly different from zero at the 1% level, using a two-tailed test.

larger takeover premiums) in a takeover (Davis and Stout, 1992; Lang *et al.*, 1989).

The dummy variable indicating whether the firm is a takeover target does not enter as significant in the regression. This empirical result is

contrary to the findings of Ryngaert (1988) and Lauterbach *et al.* (1991).

Regarding the dummy variables used to control for time effects, results indicate that the market reacts more negatively to those provisions adopted in 1985 than to those provisions adopted in 1984.<sup>7</sup> This finding is consistent with the negative time trend found in Mahoney and Mahoney's (1993) study.

The number of previously adopted and currently adopted antitakeover provisions were not statistically significant. With regard to the two dummy variables reflecting the effects of the type of provision, empirical results indicate that antitakeover amendments do not differ significantly from poison pill provisions. These findings do not lend support to Walsh and Seward's (1990) argument that the market is likely to react more negatively to poison pills than to other antitakeover amendments.

## DISCUSSION AND CONCLUSIONS

Previous research on antitakeover provisions focuses on market reactions to antitakeover provisions without incorporating the influence of the corporate boards adopting these provisions. This study is one of the first to examine the impact of the corporate board, an important internal governance mechanism, on market reactions to antitakeover provisions. Results indicate that the level of negativity of the market reactions to antitakeover provisions is influenced by the structure of the corporate board (its composition and leadership) adopting these provisions.

As expected, the market reacts less negatively to antitakeover provisions adopted by boards with a chairperson who is not the CEO than to antitakeover provisions adopted by boards chaired by the CEO. Several board reformists have advocated the value of separating the positions of CEO and chairperson of the board because it enables chairpersons to perform their governance roles more effectively. Whether such a board structure actually adds to board independence, or is simply perceived as better able to protect shareholder interests, the market reacts more negatively to

<sup>7</sup> Rerunning the analysis for poison pills alone indicates no time trend effects in the reaction to poison pill adoptions in the 1984–88 period.

antitakeover provisions adopted by boards in which the CEO and chairperson positions are held by one individual. Thus, the market seems to take the monitoring role of the chairperson into account in its reaction to antitakeover provisions. This result is consistent with Kesner and Johnson's (1990) finding that corporate boards which are led by a chairperson other than the CEO tend to be sued less often. These findings endorse the value of approval of board actions by (presumably) a more impartial chairperson. Moreover, this result indicates that the monitoring effect of such a chairperson can substitute somewhat for the external takeover market which is restricted by antitakeover provisions. Evidence of such substitution between internal and external governance mechanisms is complementary to the findings of Rediker and Seth (1995) and Sundaramurthy (1996) concerning substitution between governance mechanisms.<sup>8</sup>

The market reacts more negatively to antitakeover provisions adopted by outsider-dominated boards than to antitakeover provisions adopted by boards with fewer outsiders. This empirical finding is contrary to agency theory expectations. Furthermore, it indicates that the market not only does not take into account the monitoring role of outsiders but actually discounts their presence. One explanation is that outside directors are more likely to be aligned with top management than with shareholders (Gordon and Pound, 1993; Mace, 1986).

A second possible explanation is that when the board has almost no outside directors, the stock market can already suspect that the board will resist takeover offers. Thus, the announcement of an antitakeover provision conveys mostly positive information that an offer, which might succeed despite board opposition, is more likely. In contrast, when the board has several outside directors, the announcement of an antitakeover provision may have a greater negative information effect. Thus, firms with more outside directors may experience a greater negative reaction to antitakeover provision adoption (Brickley *et al.*, 1994).

A third possible explanation for this finding

may be that since stockholder activists have sought and achieved to a considerable extent increased outsider representation on corporate boards, the market has had an opportunity to gauge the actual contribution of outsiders in practice, which runs contrary to agency theory expectations. This paper's empirical finding is consistent with Singh and Harianto's conclusion that 'adding outsiders to corporate boards is misplaced. Activists seeking to add outsiders have presumed that the latter are objective and independent; our finding can be interpreted as refuting the basis of this activism' (1989a: 21).

A fourth possible explanation may relate to using a proportion of outsiders on the board as a measure of board vigilance. Prior findings of the effects of outsider representation on other governance issues are inconclusive. For instance, some studies indicate that increased outsider representation has positive outcomes such as reducing the probability of a firm paying greenmail (Kosnik, 1987) or being subject to shareholder suits (Kesner and Johnson, 1990). On the other hand, some studies indicate negative outcomes such as reduced R&D spending (Baysinger *et al.*, 1991) and increased probability of a firm adopting golden parachutes for its executives (Cochran *et al.*, 1985; Singh and Harianto, 1989a). Other studies indicate that outsider representation is not related to outcomes such as corporate illegal acts (Kesner, Victor, and Lamont, 1986). While this study's more fine-grained measure of outsiders to some extent captures outside board members' intent to monitor because of the potential independence associated with their nomination to the board prior to that of the CEO's, it does not gauge the capacity of these members to actually monitor. Other influences affecting board independence (e.g., other contractual connections, board members' educational background, knowledge of the industry, and experience on other corporate boards) may be vital in determining ability to monitor effectively corporate managements (Daily and Dalton, 1994; Seward and Walsh, 1996). The major concern here is measurement error—it is difficult to distinguish well-aligned and poorly aligned board members. Note, however, that the separate CEO-chairperson variable is not subject to the same measurement error problem.

This paper's empirical results thus indicate that while separating the chairperson and CEO po-

<sup>8</sup> In addition, there may be substitution effects between company-enacted antitakeover provisions and state statutes limiting takeover activity (Herzel and Shepro, 1990; Mahoney, 1994). We thank an anonymous referee for bringing this point to our attention.

sitions is valued in terms of its potential to increase board independence, increased outsider representation is viewed less favorably. These empirical results indicate that the market is cognizant of changes to the corporate board that can substitute for the monitoring effects of the takeover market.

Corporate governance researchers need to be able to identify in greater detail corporate board characteristics which not only aid effective functioning of the board, but are also recognized by the market. Such identification entails a richer description of corporate board processes and mechanisms which link board membership to its performance. Who are external directors and what motivates them to join corporate boards? How are external members selected, and how and why do patterns of relationships develop between and among internal and external directors and the CEO? Such issues need to be addressed in greater detail. Case studies of board functioning, large-scale questionnaire surveys, and interviewing of directors would be valuable in providing insight on corporate board characteristics that may influence board performance. Such investigations would be worthwhile, since the empirical findings of this study indicate that corporate board characteristics influence market reactions to board actions such as adoption of antitakeover provisions.

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## APPENDIX: DESCRIPTION OF ANTITAKEOVER PROVISIONS

(1) SUPERMAJORITY MERGER APPROVAL PROVISIONS typically stipulate stockholder approval percentages in the 66–80 percent range, thus superseding the approval requirement of the charter of the state in which the firm is incorporated. Various supermajority stockholder approval requirements may block a bidder from implementing a merger even when the bidder controls the target's board of directors since stockholder approval may remain below the specified percentage. If the board is able to determine when and if the supermajority provisions will be in effect, the amendment is said to have a board-out clause (Linn and McConnell, 1983; Mallette, 1991). Pure supermajority provisions would seriously limit the management's flexibility in takeover negotiations.

(2) CLASSIFIED BOARD PROVISIONS segment (or stagger) the board of directors into classes with one class standing for election each year. Typically, with a classified board provision, one-third of the board is elected each year for a 3-year term. With a classified board, a new majority stockholder would have to wait for two annual meetings to attain majority representation on the board before being guaranteed a successful pro-

posal of a merger for stockholder vote (DeAngelo and Rice, 1983; Sundaramurthy, 1996).

(3) FAIR-PRICE AMENDMENTS require supermajority voting approval by stockholders for the transfer of control if the bidder does not offer a 'fair-price.' Usually, the fair-price is defined as the highest price paid by the bidder for any shares acquired in the target firm during a specified period or some premium over market price. Some fair-price amendments require outside appraisals. For example, the price paid in the merger may have to be approved as fair by an independent investment banking firm selected by independent directors. In many cases more than one test is used, and the required fair-price must at least match the highest of them (Herzel and Shepro, 1990). The amendments are effective mainly against hostile two-tier tender offers, where the bidder obtains control of the firm in two stages (Jarrell and Poulsen, 1987).

(4) REDUCTION IN CUMULATIVE VOTING PROVISIONS restricts the rights of stockholders to accumulate their votes in favor of a particular director or board of directors. The number of votes to which a stockholder is entitled is the number of shares owned multiplied by the number of directors to be elected in a given year. There-

fore, with cumulative voting it may be possible for minority stockholders to elect some board members even if the majority of stockholders oppose their election. A reduction in cumulative voting rights reduces the minority stockholders' ability to elect their nominees as directors (Bhagat and Brickley, 1984) and thus makes the firm a less desirable takeover target.

(5) ANTI-GREENMAIL PROVISIONS are amendments to corporate charters which prohibit payment of greenmail. Greenmail involves private repurchase of a sizeable block of company stock at a premium (Davis, 1991; De and Kenz, 1993). These transactions often occur under the explicit or rumored threat of takeover by a substantial stockholder or stockholders (Bagwell, 1991; McChesney, 1993). In exchange for a premium above market price, the raider agrees not to acquire the firm and displace incumbent management (Duggal and Cudd, 1993; Mikkelsen and Ruback, 1991). Often this transaction is followed by a standstill agreement whereby the raider also agrees not to acquire stock in the concerned company for a specified period of time, often for as long as 5 years (Shleifer and Vishny, 1986). Managers who engage in targeted block share repurchases frequently are expelled from corporate ranks and the probability of being replaced increases with the repurchase premium paid (Ang and Tucker, 1988). Klein and Rosenfeld (1988) find the average premium over market paid in greenmail is 22 percent. Typical anti-greenmail charter amendments prohibit firms from repurchasing some or all of the common (voting) stock of an 'interested' stockholder, normally defined as a stockholder who owns 5 percent or more of the outstanding common stock and who acquired this ownership within the past 3 years (Eckbo, 1990). Technically, anti-greenmail provisions are not antitakeover provisions; however, taken in tandem with other measures, they can deter the accumulation of large blocks of stock that often precedes a takeover attempt (Rosenbaum, 1987). Since anti-greenmail provisions reduce the bidder's ability to appropriate gains in the case of

a failed takeover, the provision may reduce the probability of a takeover attempt.

(6) POISON PILL PROVISIONS are operating measures and do not require stockholder approval. Poison pill provisions provide target stockholders the right to purchase additional shares at a discount or to sell shares to the target at very attractive prices (Comment and Schwert, 1995). Poison pills may be convertible into cash, into the stock of the target company or into the stock of hostile bidders (Rosenbaum, 1987). The target stockholders' right to purchase at a discount is known as a *flip-over plan*. Under the flip-over plan, the firm declares a stock dividend in the form of preferred stock, purchase rights that attach to common stock and warrants to purchase stock (Rosenbaum, 1987). For example, Crown Zellerbach's common stock purchase rights had an exercise price of \$100 per share while Crown common stock traded at \$30 per share (Malatesta and Walkling, 1988). If an acquirer merges with the firm, the rights 'flip over' and holders are entitled to purchase shares in the surviving firm at a substantial discount from the postmerger market price, typically 50 percent (MacMinn and Cook, 1991). In our example, if the rights' exercise price is \$100 and the surviving firms' stock when the merger is consummated trades at \$50 per share, each right entitles its holders to purchase 4 shares of stock for \$100. In the more potent *flip-in-plan*, the mere acquisition of a threshold stake (usually between 10 percent and 20 percent) enables the rights' holders to purchase additional shares of the target firm at a discount (Choi, Kamma, and Weintrop, 1989). The intended result is that no one dares to pass the flip-in triggering percentage, and bidders are forced to negotiate with target boards. Approximately half the flip-over plans contain a flip-in provision. Finally, the right to sell shares to the target at an attractive price is called a *back-end plan* (Ryngaert, 1988). Back-end plans are so named because they attempt to place a specific minimum price on the back end of a two-tier acquisition bid (Mahoney, Sundaramurthy, and Mahoney, 1996; Malatesta and Walkling, 1988).