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Voting power in the proxy process

The case of antitakeover charter amendments

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The likelihood that a firm will enact a management-sponsored antitakeover charter amendment depends on ownership structure. This implies that the adoption of antitakeover amendments may be anticipated. Then announcement returns provide a biased estimate of wealth effects. An estimator that corrects for the bias induced by anticipation indicates that the enactment of an antitakeover amendment is associated with a statistically significant decrease in shareholder wealth. The voting power of employee stock ownership plans and the chief executive officer plays a prominent role in determining whether a firm will adopt this type of takeover defense.

1. Introduction

Previous studies of management-sponsored antitakeover amendments adopted for the approval of shareholders have focused mainly on the wealth effects associated with the amendments, and secondarily on the ownership structure of the firms that adopt them. The accumulated evidence on the impact of these amendments on shareholder wealth is weak, with point estimates that range from slightly negative to slightly positive [see DeAngelo

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and Rice (1983) and Linn and McConnell (1983)]. Using a 31-day return window, Jarrell and Poulsen (1987) identify wealth effects that are negative and statistically significant for some types of amendments, and effects that are negative but not statistically significant in shorter return windows.

Ownership data and voting patterns suggest that the amendments are supported by corporate insiders and opposed by the typical institutional investor. Brickley, Lease, and Smith (1988) document voting patterns consistent with the hypothesis that institutional investors are more likely than nonblockholders to oppose antitakeover amendments, while corporate insiders support the adoption of the amendments. Jarrell and Poulsen (1987) report above-average insider holdings and below-average institutional holdings in a large sample of firms enacting amendments. A plausible interpretation is that antitakeover amendments protect managers from the discipline of the takeover market while harming shareholders.

There are, however, reasonable arguments to support the view that management-sponsored antitakeover amendments do not actually injure shareholders. The notion that antitakeover amendments increase managers' bargaining power, articulated by DeAngelo and Rice (1983), is inconsistent with Pound's (1987) finding that antitakeover amendments do not increase bid premiums. A second argument, that managers of firms adopting amendments are simply enjoying contractual protection against takeovers afforded them by shareholders, is consistent with the extant evidence on wealth effects, and the fact that shareholders vote to approve the overwhelming majority of proposals put forth by management.[1] If we are to conclude that antitakeover amendments are harmful, it is important to establish that enactment does in fact impose a cost. Then the question of shareholder support for these amendments still begs for an explanation.[2]

We provide evidence that speaks to both of these issues. An econometric methodology that incorporates both prior information about the likelihood of adoption and the returns realized by firms that might have enacted amendments but did not do so yields an estimated wealth effect on the order of negative 1% of equity value for a large sample of firms that adopted antitakeover amendments during 1984 and 1985. This effect is statistically significant and consistent across different types of amendments, including fair-price amendments. The relationship between the distribution of announcement returns and the prior probability of announcement suggests that anticipation attenuates announcement effects. The fact that the returns of

[1]Brickley, Lease, and Smith (1988) report that 95% of the management-sponsored antitakeover amendments in their sample of 288 proposals are approved by shareholders.

[2]Jarrell, Brickley, and Netter (1988) attribute shareholder support for amendments to the free-rider problem. We suggest that the transaction costs that give rise to the free-rider problem are, at least in part, an endogenous consequence of strategic behavior that might be eliminated through either changes in the charter or proxy reform.

nonproposing firms contains information about the effects of antitakeover amendments indicates that sample-selection bias may have played a role in earlier studies of such amendments, including studies concerned with wealth effects.

We pursue the sample-selection bias issue by considering the difference between firms that enact amendments and those that do not. We note that the aversion of certain firms to antitakeover amendments persists outside the sample period, suggesting genuine differences between the two samples. This conjecture is consistent with observed differences in ownership structure. In general, parties represented on a firm's board of directors exert a strong influence on whether an antitakeover amendment will be enacted. The ownership stake of the chief executive and the voting power of employee stock ownership plans play an especially prominent role. The presence of institutional investors, who are not typically represented on the board, does not appear to affect the adoption of antitakeover amendments, although there is weak evidence that institutional blockholders deter enactment.

The results on ownership structure, although intuitively appealing, do not explain shareholder support for wealth-decreasing changes in corporate governance. We document two types of strategic behavior that provide a partial explanation, and complement our evidence on ownership. The first type involves the bundling of agenda items that are likely to be considered more desirable by shareholders with items that are likely to be regarded less favorably. A second variety comes in the form of hidden antitakeover amendments. Hidden amendments are antitakeover amendments that are described in the text of the proxy statement but not noted in the notice of the meeting, where agenda items are summarized. Our data do not afford a direct test of the effect of these activities on shareholder wealth, but the board structure of firms engaging in them is consistent with the conjecture that strategic behavior may be a substitute for voting power.

The remainder of the paper is organized as follows. We describe our data and present summary statistics for the proxy agenda, wealth effects, and ownership structure in section 2. Our econometric analysis is presented in section 3. We discuss our results in section 4 and summarize our conclusions in section 5.

2. The data

2.1. Sample construction

We construct a sample consisting of proxy statements containing management-sponsored antitakeover amendments using the Jarrell and Poulsen (1987) sample and a group of proxy statements containing management-sponsored antigreenmail charter amendments. Jarrell and Poulsen's sample

is drawn from Kidder Peabody (1984) and the Securities and Exchange Commission's (SEC's) Office of Tender Offers. The antigreenmail sample was supplied by the New York Stock Exchange. Antigreenmail amendments, which require managers to obtain shareholder approval before a targeted repurchase of an equity stake at a premium to the market price, do not necessarily reduce the likelihood of a takeover, but they appear to play an important role in the adoption of other antitakeover amendments.

All proxy statements in the combined sample were mailed during 1984 or 1985. For this sample of 210 firms, we eliminate those observations for which a copy of the proxy statement cannot be found in the Disclosure data base. This produces a sample of 187 firms.

We construct a second sample by selecting from the Center for Research in Security Prices (CRSP) daily master file that firm closest in total equity value to the firm proposing the antitakeover amendment, from the set of all firms having the same three-digit SIC code. For each firm in this second sample, we locate the proxy statement whose mailing date is closest to the mailing date of the corresponding firm in the antitakeover sample. Complete proxy documents are available for 176 firms. Fourteen of these contain management-sponsored antitakeover amendments.

After reading each of the 363 proxy statements, we decided to exclude from further analysis those firms with 5% blockholders that might be considered to represent affiliated enterprises. The typical blockholder in this group is an officer of a firm holding a minority stake in the excluded firm. The purpose of applying this filter, which results in the elimination of four firms from the amendment sample and 14 firms from the second sample, is to prevent our results from being contaminated by the presence of firms whose blockholders are qualitatively different from the blockholders in the remaining firms. The implications of excluding this subsample are discussed in section 3.2 below.

In the analysis that follows, we compare firms that propose antitakeover amendments with firms that do not. The sample of firms that propose amendments comprises 183 firms from the original sample plus the 14 firms in the second sample that proposed amendments. We refer to the remaining 148 firms in the second sample as the nonproposing group. Names, mailing dates, and proxy agenda for all 345 firms are listed in an unpublished appendix available from the authors.

2.2. *The agenda*

Our taxonomy of the antitakeover amendments found in these proxy statements is presented in table 1. It differs from that used by Jarrell and Poulsen in a number of respects. The category labeled 'entrench the board of directors' contains all provisions that would make it more difficult for an

Table 1

The frequency of antitakeover amendments and strategic behavior in a sample of 183 proxy statements for NYSE- and Amex-listed firms offering antitakeover charter amendments during 1984–1985, and in a sample of 162 proxy statements for a group of firms selected on the basis of size and industry.

Frequency of charter amendments		
Type of amendment	Amendment sample	Second sample
Entrench the board of directors[a]	110	12
Fair-price or supermajority	136	9
Antigreenmail[b]	44	1
Blank-check preferred stock[c]	33	4
At least one of the above	183	14
Frequency of strategic behavior		
Type of behavior	Amendment sample	Second sample
Hidden amendments[d]	7	1
Bundled agenda[e]	24	0
Sample size	183	162

[a]Examples of such amendments are board classification, elimination of shareholders' right to vote by written consent or calling a special meeting, and stipulation that directors can be removed only for cause.

[b]Antigreenmail amendments require managers to obtain shareholder approval before a targeted repurchase of an equity stake at a premium to the market price.

[c]These amendments would authorize issuance of preferred stock with voting rights to a friendly investor.

[d]Hidden amendments are antitakeover amendments that are described in the text of the proxy statement but not noted in the notice of the meeting, where agenda items are summarized.

[e]Bundled agenda items require shareholders to vote either yes or no on two charter amendments, for example, an antitakeover amendment and a greenmail amendment.

outsider to gain control of the board. Included in this category are amendments stipulating that directors may be removed only for cause, amendments that eliminate shareholders' right to vote by written consent, and amendments that limit the rights of shareholders to call a special meeting or nominate candidates to the board, in addition to the classified board amendments considered by Jarrell and Poulsen. Fair-price and supermajority amendments are treated as a single category, primarily because our sample contains only two pure supermajority amendments. This is consistent with Jarrell and Poulsen's observation that the popularity of these amendments has waned over time. It is also worthwhile to note that although most of the fair-price amendments in the sample conform roughly to the description offered by Jarrell and Poulsen, a number of those labeled fair-price amendments closely resemble pure supermajority amendments. In some cases, the fair price is defined as the maximum of the outstanding share price during the two years preceding the offer. Market valuations may be abandoned

altogether: in at least two cases, the board is permitted to establish a fair price after consulting an investment banker of its choice. These provisions substantially expand the number of situations in which supermajority voting is triggered.

With the exception of blank-check preferred stock, the remaining categories in our taxonomy are additions to the array of takeover defenses considered in the Jarrell and Poulsen study. Antigreenmail amendments bar management from engaging in a targeted share repurchase at a premium to the market price without prior shareholder consent. Repurchases offered to all shareholders on an equal basis and repurchases made in the open market are routinely exempt from the restrictions imposed by the amendment. In some cases, 'long-term' shareholders are also exempt.

Although it is not clear that an antigreenmail amendment reduces the likelihood of a takeover, these amendments do play an important role in the adoption of other antitakeover amendments. One apparent function of the antigreenmail amendment is to hide substantive antitakeover provisions. An example is provided by the Diamond Shamrock proxy statement of April 12, 1985, which requests shareholder approval of an agenda item '... to deter greenmail and other self-dealing transactions, as discussed in the proxy statement'. Inspection of the proxy reveals that the self-dealing transactions include all mergers, consolidations, and recapitalizations of the corporation that transpire when a single stockholder owns more than 5% of the voting stock. The deterrent that shareholders are asked to approve is disenfranchisement of the blockholder; the approval of either a majority of the shareholders other than the 5% blockholder or a majority of the disinterested directors is required to effect any of the transactions deemed to be self-dealing. Moreover, disinterested directors are defined as those not affiliated with the *blockholder*, who is therefore precluded from either voting his shares in favor of a merger or having his representative on the board participate in the decision-making process.

A second type of hidden amendment is unrelated to the adoption of an antigreenmail provision. These amendments ask shareholders to approve reincorporation in the state of Delaware. Substantial antitakeover provisions, for example, supermajority provisions, are described in the text of the proxy statement but not noted in the notice of the meeting, where agenda items are summarized. These proxy statements may be contrasted with others in which the same antitakeover provisions are not classified as hidden. In those cases, the presence of the antitakeover amendments is disclosed in the notice of the annual meeting.

A second variety of strategic behavior involving antigreenmail amendments is the bundling of agenda items that shareholders presumably favor with items they might be predisposed to reject. The advantage realized by bundling is illustrated in fig. 1. Suppose that one agenda item has a wealth effect of w_1

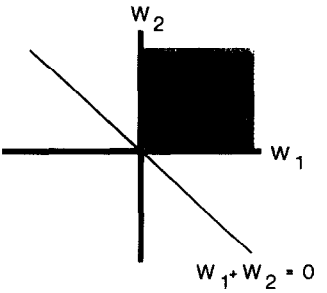

Fig. 1. The effect of bundling two proposals as a single agenda item. Bundled agenda items require shareholders to vote either yes or no on two charter amendments, for example, an antitakeover amendment and a greenmail amendment. w_i represents the wealth effect of proposal i. Agenda with wealth effects in the shaded region are acceptable if the items are considered separately. Agendas with wealth effects to the right of $w_1 + w_2 = 0$ are acceptable if the items are combined.

and a second has a wealth effect of w_2. When shareholders vote separately on the two items, both are approved only where $w_1 > 0$ and $w_2 > 0$. This corresponds to the shaded region in the figure. If, however, shareholders are asked to vote on the package, they approve both amendments in all cases where $w_1 + w_2 > 0$. The marginal impact of bundling is the unshaded section of the half plane to the right of the line $w_1 + w_2 = 0$.

We examine bundling in the context of the antigreenmail amendment. If these amendments are likely to be approved by shareholders who oppose antitakeover amendments, then managers may be able to implement an antitakeover amendment by offering the two items as a package. This leads to a joint hypothesis: the wealth effect of the antigreenmail amendment is positive and greater in absolute value than the negative wealth effect of antitakeover amendments, so bundling induces the acceptance of an antitakeover amendment that would otherwise be rejected.[3]

These are important distinctions between hidden charter amendments and charter amendments that are bundled with antigreenmail amendments. First, bundled items are described in the agenda summary, and therefore are apparent to shareholders who read that summary, whereas hidden amendments are not. Second, the bundling strategy will be effective in an environment where all shareholders are fully informed about negative wealth effects, but management controls the agenda and has something valuable to offer in a package with the wealth-decreasing item. In contrast, the effectiveness of

[3]We note that antigreenmail amendments may in fact harm shareholders even if these amendments do not directly affect the likelihood of a takeover. Mikkelson and Ruback (1985) demonstrate that the combined effect of a toehold acquisition and subsequent greenmail payment is positive. If antigreenmail amendments deter the initial acquisition, they may have an adverse impact on shareholder wealth.

hidden amendments depends on uninformed shareholders; the two types of strategic behavior are equivalent when shareholders are fully informed. Neither type of behavior should be effective in the absence of information or transaction costs.

The last type of antitakeover amendment we consider is blank-check preferred stock. These charter amendments authorize the issuance of stock with voting rights that may be specified by the board of directors at the date of issue. We do not treat preferred stock issues where the voting rights are fixed as blank-check preferred stock authorizations since these are less likely to be used to fend off a takeover. This distinguishes our sample from those considered by some previous authors.

2.3. *Antitakeover amendments outside the sample period*

Firms that do not enact amendments during our sample period may do so outside the sample period. The data in table 2, which describe the experience of sample firms with respect to antitakeover amendments outside the sample period, address this issue. The first panel of the table presents information for all firms in the sample drawn from proxy materials, the Investor Responsibility Research (1987) survey of antitakeover amendments implemented by Fortune 500 firms through the end of 1987, and the *Wall Street Journal Index* for the two years following the proxy mailing date. The second panel focuses on the Fortune 500, where our information is more precise.

The data indicate that the events that transpired during the two years of our sample are representative of the sample firms' experience with antitakeover amendments. Firms that propose amendments during 1984 or 1985 were much more likely to have an amendment in place by the end of 1987; the different experience during the sample period does not appear to be a matter of timing. Moreover, activity during the same period seems to represent a genuine change in the takeover defense status of sample firms, since our information indicates no significant difference in takeover defenses before the sample period.

2.4. *Wealth effects*

If the outcome of voting is a foregone conclusion, the wealth effects of proposed changes in corporate policy should be reflected in share prices when the proxy material becomes public. Bhagat (1983) and Bhagat and Brickley (1984) find that information on events noted in the proxy statement is impounded in share prices when the proxies are mailed. Larcker (1983) finds a significant market reaction on the day the SEC receives the proxy – the SEC 'stamp date'. Brickley, Bhagat, and Lease (1985) find that the proxy date precedes the SEC stamp date by an average of 3.2 days (median = 3.0 days).

Table 2

The 1987 status of charter amendments for a sample of 197 NYSE- and Amex-listed firms offering antitakeover charter amendments during 1984–1985, and a sample of 148 NYSE- and Amex-listed firms that do not offer charter amendments during the same period.[a] Prior to the beginning of 1984 there is no statistically significant difference in the frequency of previously enacted antitakeover amendments between firms that propose amendments and those that do not. There is a statistically significant difference in the frequency of amendments enacted any time before the end of 1987. This suggests that the experience of sample firms during the sample period is representative of their overall experience with enactment of antitakeover amendments.

	Full data set		
	Amendment sample	Nonproposing sample	χ^2 statistic[b]
Known to have some antitakeover amendment by the end of 1987	197	46	192.76
Known to have some antitakeover amendment at the proxy mailing date	20	15	0.00
Sample size	197	148	
	Fortune 500[c]		
	Amendment sample	Nonproposing sample	χ^2 statistic
Known to have some antitakeover amendment by the end of 1987	84	31	42.93
Known to have some antitakeover amendment at the proxy mailing date	17	9	0.27
Sample size	84	54	

[a]All data are from the proxy statement, 10K filings, Investor Responsibility Research Center (1987), and the *Wall Street Journal Index*.

[b]The χ^2 statistics of 192.76 and 42.93 are significantly different from zero at 1%. Neither of the other statistics rejects the null of no difference for the two samples.

[c]The sample is restricted to firms from the amendment and nonproposing samples that are in the Fortune 500.

Linn and McConnell (1983) note that for some firms the information in the proxy statement is released around the time of the board meeting rather than on the proxy mailing date. In this study, we focus on the day before, the day of, and the day after the proxy mailing date.

Announcement returns realized by portfolios corresponding to different antitakeover amendments are presented in table 3, panel A. All returns are expressed as a percentage of equity value. Calculations are based on the market model, with the Standard & Poor's composite index serving as the market proxy and days -170 through -21 relative to the proxy mailing date used for estimation. Statistics based on the Standard & Poor's composite index rather than the CRSP equally-weighted index are reported to facilitate

Table 3

Announcement returns and difference between announcement returns realized by a sample of 191 NYSE- and Amex-listed firms offering antitakeover amendments during 1984–1985, and announcement returns realized by a portfolio of 141 NYSE- and Amex-listed firms that do not propose amendments. The nonproposing sample is selected on the basis of size and industry. Each difference is calculated by subtracting the return realized by the control portfolio from the return realized by the portfolio of firms offering antitakeover amendments of the specified type. All returns are expressed as a percentage of share value. Day 0 is the proxy mailing date. The Standard & Poor's composite is the market index.

Panel A: Announcement returns for days [−1, 1]

Portfolio	Mean	Median	Standard deviation	z statistic[a]	Sample size[b]	Number positive
All returns	0.25	0.02	4.06	1.70	332	169
Nonproposing[d]	0.84	0.46	4.36	3.68[c]	141	84[c]
All amendments	−0.18	−0.32	3.78	−0.92	191	85
Entrench board[e]	0.06	−0.38	3.34	−0.11	119	55
Fair price	0.05	−0.25	3.39	0.17	141	64
Blank check[e]	−0.13	−0.58	3.26	−0.22	36	15
Antigreenmail[e]	−0.14	−0.46	5.86	−0.33	44	20
Bundled agenda[e]	0.86	−0.46	5.04	1.25	23	12
Hidden amendment[e]	0.72	−0.27	4.38	0.86	8	4

Panel B: Difference in announcement returns for days [−1, 1]

Portfolio	Mean	z statistic	Rank statistic	Median	χ^2 statistic
All amendments	−1.02	−3.09[c]	−2.09[c]	−0.78	6.52[c]
Entrench board	−0.77	−2.78[c]	−1.64	−0.84	4.48[c]
Fair price	−0.79	−2.48[c]	−1.68	−0.71	5.12[c]
Blank check	−0.96	−3.38[c]	−1.33	−1.03	2.35
Antigreenmail	−0.98	−3.37[c]	−0.88	−0.91	1.16
Bundled agenda	0.02	−2.94[c]	−0.13	−0.91	0.05
Hidden amendment	−0.12	−3.38[c]	0.40	−0.72	0.00

Panel C: Difference in announcement returns for days [−20, 10]

Portfolio	Mean	z statistic	Rank statistic	Median	χ^2 statistic
All amendments	−0.72	−0.96	−0.09	−0.46	0.31
Entrench board	−0.88	−0.86	−0.03	−0.46	0.14
Fair price	−0.64	−0.86	−0.11	−0.92	0.35
Blank check	−2.81	−1.87[c]	−1.01	−1.87	1.34
Antigreenmail	−1.14	−1.52	−0.57	−2.65	0.54
Bundled agenda	−0.31	−1.34	−0.67	−4.55	0.46
Hidden amendment	1.84	−1.36	0.53	0.67	0.50

[a]Constructed using standardized returns; see Dodd and Warner (1983) for the definition of this statistic.
[b]Thirteen of the 345 firms in the sample had missing returns.
[c]Null hypothesis is rejected at the 5% level of significance in a two-tailed test.
[d]These firms do not propose any amendments in the sample period.
[e]See footnote to table 1 for a description of these amendments.

comparison with Jarrell and Poulsen's results and to assure the reader that our conclusions are not sensitive to this feature of the estimation procedure. All results reported in table 3 (and later, table 8) were replicated using the CRSP equally-weighted index; these results were statistically indistinguishable from those reported.

The wealth effects associated with the proposal of antitakeover amendments are generally quite small. The null hypothesis of zero cannot be rejected in any case. But the second line of panel A in table 3 suggests an explanation of the observed returns that is consistent with the conjecture that antitakeover amendments decrease shareholder wealth. The portfolio of 141 proxy statements for which there is no antitakeover amendment on the proxy agenda realizes a positive announcement return of 0.84% that is statistically different from zero at the 1% level.

The returns for portfolios of firms that offer various types of amendments are contrasted with the return on the portfolio of nonproposing firms in panels B and C in table 3. In every case, the point estimate indicates that firms that do not announce an antitakeover amendment do better than those announcing an amendment. In the $[-1, 1]$ window, the z-statistic rejects the null of equal mean performance at the 1% level of significance for every portfolio of antitakeover amendments. The nonparametric Mann–Whitney rank statistic rejects the null for the portfolio of all antitakeover amendments. The null of equal median performance is rejected for the portfolios of all antitakeover amendments, amendments that entrench the board, and fair-price amendments. In the longer-return window examined by Jarrell and Poulsen, the null of equal mean performance is rejected at the 5% level only for the portfolio corresponding to the authorization of blank-check preferred stock. Although these results do not conflict with those reported by Jarrell and Poulsen in a larger sample, they do show that the longer-return window contains significant noise.

2.5. *The return distributions*

In an unpublished appendix available from the authors, we examine returns during a 41-day period surrounding the proxy mailing day but excluding the $[-1, 1]$ event window. We find that the distributions of daily abnormal returns and standardized daily abnormal returns for the different portfolios described in table 3 display significant skewness and kurtosis. This implies that the hypothesis of normality used to construct z-statistics is violated. As a consequence, we rely on nonparametric statistics and econometric estimators that are robust to departures from normality to interpret returns.

Examination of the returns realized by the different portfolios during the 41-day period, exclusive of the $[-1, 1]$ event window, reveals no statistically

significant difference between the nonproposing and antitakeover firms. Nor is there evidence that any of the individual portfolios realizes abnormal returns during this period. These nonevent-period comparisons, which hold when listed firms and firms with contemporaneous announcements in the *Wall Street Journal* during the event period are excluded, suggest that our findings are not a consequence of mismeasurement.

In the $[-1, 1]$ event period, the nonparametric rank statistic indicates that only the portfolio of nonproposing firms realizes a statistically significant return. Brickley (1986) documents a zero abnormal return around the proxy mailing date for a random sample of firms without unusual items in the proxy. Our nonproposing sample is not random because it is constructed on the basis of size and industry. We interpret the difference between Brickley's results and ours as evidence that failure to propose an antitakeover amendment is viewed more favorably by the market than the proposal of an antitakeover amendment.

We find strong evidence of a shift in the variance of abnormal returns between the event period and the surrounding period. In section 4, we explain that this is to be expected when returns reflect anticipation of an event by market participants.

2.6. *Compensation and ownership*

Table 4 summarizes the differences in compensation and ownership structure between the firms that propose antitakeover amendments and the nonproposing sample. Ownership data, except where otherwise noted, are taken from the proxy statement and SEC 10K filings.

The total equity interest of an officer or director is calculated using beneficial ownership of common shares and the stock price outstanding at the end of the month preceding the proxy mailing date. Beneficial ownership includes direct ownership, indirect ownership through family members, trusts or partnerships, and contingent ownership in the form of stock options that may be exercised within 60 days. Beneficial ownership of officers and directors as a group, corrected to eliminate the double counting of shares owned jointly, is reported in the proxy statement. The fraction of voting rights held by officers and directors is calculated by subtracting from beneficial ownership those voting rights attributable to contingent ownership, and adding voting rights attached to other securities such as preferred stock. This provides a rough measure of the votes that we might expect the officers and directors to control. The measure is less than exact because of the ambiguity introduced by including indirect ownership.

Dollar compensation for the chief executive and for all officers and directors as a group is reported in the proxy statement. This does not include compensation realized through dividends or the exercise of stock options,

Table 4

Summary statistics for ownership by officers and directors and their compensation in a sample of 197 NYSE- and Amex-listed firms offering antitakeover charter amendments during the 1984–1985, and a sample of 148 NYSE- and Amex-listed firms that do not offer antitakeover charter amendments during the same period. All data are from the proxy statement and 10K filings.

Ownership and compensation for chief executive officers

	Amendment sample[a]			Nonproposing sample[b]		
	Mean	Median	σ[c]	Mean	Median	σ[c]
Equity stake in millions of dollars	12.86	2.39	49.90	19.62	2.41	52.34
Compensation in millions of dollars	0.60	0.45	0.71	0.49[d]	0.36[d]	0.64
Compensation as a percentage of firm value	0.20	0.08	0.34	0.55[d]	0.13[d]	3.26
Percentage of voting rights	2.54	0.28	5.24	7.15[d]	0.80[d]	13.73

Ownership and compensation for all directors and officers as a group

	Amendment sample			Nonproposing sample		
	Mean	Median	σ	Mean	Median	σ
Equity stake in millions of dollars	57.89	17.93	128.50	45.13	17.26	75.95
Compensation in millions of dollars	3.19	2.52	2.40	2.29[d]	1.93[d]	1.52
Compensation as a percentage of firm value	0.83	0.46	1.04	1.26[d]	0.66	1.58
Percentage of voting rights	8.03	2.97	9.71	14.68[d]	6.26	18.38

[a]The amendment sample consists of all observations in table 1 for which an antitakeover charter amendment is found in the proxy statement, including those firms in the sample that satisfy this criterion.

[b]The sample consists of all observations contained in table 1 for which no antitakeover charter amendments are found in the proxy statement.

[c]Sample standard deviation.

[d]A nonparametric rank statistic rejects the null of equality for the mean or median in the two populations.

which may be substantial. In many cases, the number of individuals covered in the report of compensation paid to all officers and directors is different from the number covered in the report of beneficial ownership by officers and directors. The economic meaning of these statistics is therefore less clear for officers and directors as a group than for the chief executive.

We summarize the differences in ownership structure as follows. At firms that adopt amendments, both the chief executive officer and all officers and directors as a group earn greater dollar compensation than their counterparts at firms that do not adopt amendments; \$0.60 million versus \$0.49 million for chief executive officers, and \$3.19 million versus \$2.29 million for all officers and directors. Managers at firms adopting charter amendments hold a smaller fraction of the outstanding voting securities issued by the firm (2.54% versus 7.15% for chief executive officers and 8.03% versus 14.68% for all officers and directors) and realize a lesser fraction of firm value as compensation (0.20% versus 0.55% for chief executive officers and 0.83% versus 1.26%

for all officers and directors). These features of ownership structure reflect the fact that firms adopting amendments tend to be larger, despite our attempt to control this feature in our sample design. The nonparametric rank statistic indicates that all of these differences, including size, are statistically significant at the 1% level. The dollar value of equity investment by these parties is not significantly different for the two samples.

Firms in the second sample that propose amendments tend to be larger than firms that do not. When we consider only matched pairs where the equity value of the form in the second sample differs from the equity value of the firm proposing an amendment by less than 20%, the sample is reduced by nearly two-thirds to a total of 122 firms and there is still a substantial size difference between proposing and nonproposing firms. None of these estimated relations reported here is changed by this selection criterion, although most differences become statistically insignificant. This suggests that differences in compensation and ownership structure between proposing and nonproposing firms may be due to differences in the sizes of these firms.

2.7. Block ownership

We record ownership by 5% blockholders as reported in the proxy statement. We also recognize the distinction between beneficial ownership and the voting rights that are actually controlled by an investor. Institutional investors are required by SEC regulations to report shares as beneficially owned when those shares are held for clients who control the attached voting rights. The result is that mean beneficial ownership is roughly double mean voting power for institutional blockholders in our sample. In contrast, the difference between beneficial ownership and voting rights is less than 2% for chief executives. This implies that beneficial ownership data may induce a serious errors-in-variables problem in cross-sectional regression models. We attempt to control this problem by recording voting and disposition rights, as well as beneficial interest for 5% blockholders. The statistics in the table pertain to those shares for which a blockholder actually controls the voting rights.

Summary statistics for 5% block ownership, institutional ownership, and firm size are presented in table 5. The definition of most of these variables is straightforward. An outside director is any director who is not also an officer of the corporation. We deem an institutional investor to be affiliated with the firm issuing a proxy statement, and therefore not independent of that firm, if we determine either that the firm has a client relationship with the institution (as with a bank), or that an officer of the corporation is described in the proxy statement as being an officer or trustee of the institutional investor. Affiliated investment plans include employee stock ownership plans, payroll stock ownership plans, and all other affiliated investment plans. In addition, we

Table 5

Summary statistics for 5% block ownership, institutional ownership, and firm size for a sample of 197 NYSE- and Amex-listed firms offering antitakeover charter amendments during 1984–1985, and a sample of 148 NYSE- and Amex-listed firms that do not offer charter amendments during the same period.

	Percentage of firm owned by 5% block owners[a]					
	Amendment sample[b]			Nonproposing sample[c]		
	Mean	Median	σ[d]	Mean	Median	σ
All officers and directors	4.72	0.00	9.87	9.45[e]	0.00[e]	16.88
Outside directors[f]	0.89	0.00	4.27	2.82[e]	0.00[e]	8.58
All institutions	2.34	0.00	4.89	3.09	0.00	5.48
Independent institutions[g]	2.11	0.00	4.57	2.76	0.00	5.30
Affiliated investment plans[h]	1.71	0.00	5.15	1.01	0.00	3.06
	Amendment sample			Nonproposing sample		
	Mean	Median	σ	Mean	Median	σ
Institutional ownership[i]	41.73	43.90	17.93	41.23[e]	34.20[e]	59.23
Outstanding equity in hundreds of millions of dollars	$13.03	$5.99	$20.79	$6.40[e]	$2.81[e]	$11.54

[a]All block ownership data are from the proxy statement and 10K filings, and include only those shares for which the individual or group enjoys either shared voting power or sole voting power.
[b]The amendment sample consists of all observations in table 1 for which a charter amendment is found in the proxy statement, including those firms in the sample that satisfy this criterion.
[c]The sample consists of all observations contained in table 1 for which no charter amendments are found in the proxy statement.
[d]Sample standard deviation.
[e]A nonparametric rank statistic rejects the null of equality for the mean or median in the two populations.
[f]Outside directors are directors who are not also officers of the corporation.
[g]Independent institutions have neither an identifiable client relationship with the firm that proposes an antitakeover amendment nor any shared officers or directors.
[h]Includes employee stock ownership plans, payroll stock ownership plans, and thrift plans.
[i]Institutional ownership data is from the *Standard and Poor's Stock Guide*.

report institutional ownership from the *Standard & Poor's Stock Guide* during the month preceding the proxy mailing, and firm size, as measured by the total value of outstanding equity.

Although evidence presented below indicates that block ownership plays a significant role at the margin, there are no 5% blockholders for more than half of the firms. One explanation is the significant size of a 5% equity stake, which requires an investment of $15 million at the median firm in the nonproposing sample and $30 million at the median firm in the amendment sample.

The table also reveals that all types of blockholders, except affiliated investment plans, are less influential at firms that implement antitakeover

amendments, though the difference is statistically significant only with ownership by officers and directors and with ownership by outside directors. Institutional ownership tends to be greater at firms that implement antitakeover amendments, and these firms tend to be larger. Both differences are statistically significant.

2.8. Earnings profiles

The evidence presented in Morck, Shleifer, and Vishny (1989) suggests that earnings history and expectations of future earnings might influence the decision to adopt an antitakeover provision. We construct an earnings profile for each firm in the sample, consisting of the yearly change in earnings divided by the total value of assets at the beginning of the year, beginning two years before the year in which the amendment is proposed and ending two years after adoption. We observe no significant differences in these changes in earnings for the two samples for any of the five years or for the entire five-year period.

3. Cross-sectional models

3.1. An estimator for wealth effects

If anticipation of an event contaminates announcement effects, consistent estimates of wealth effects are produced by estimators that incorporate the ex ante announcement probability. Malatesta and Thompson (1985) focus on a situation where the timing of announcements is uncertain, and simultaneously estimate the probability of an event and the associated wealth effect from time series of stock returns. Acharya (1989) also considers situations in which timing is uncertain, but draws on the work of Heckman (1978) and extends the analysis to include instrumental variables that reflect cross-sectional variation in the likelihood of an announcement. We too draw upon Heckman's work, but focus on situations where the timing of an announcement is known. Instrumental variables are used to obtain consistent estimates of the prior probability of the event. Estimated wealth effects are then extracted from cross-sectional returns using a nonlinear estimator.

When the timing of the event is known, the probability of the event is zero during the period surrounding the announcement. Thus, time series of stock prices do not have the informational content attributed to them in the estimators proposed by Acharya and Malatesta and Thompson, and using the estimator employed here increases efficiency. In addition, the use of cross-sectional models allows us to exploit some important statistical results due to White (1982) and Vuong (1989).

We base our analysis on the following additional assumptions:

(1) The value of the firm contingent on the event is P_E; the value in the absence of the event is P_{NE}.
(2) The ex ante probability of the event contingent on a vector x of firm characteristics is $\pi(x)$.
(3) Risk-neutral pricing obtains in the market.
(4) The return observed when the event occurs is R_E; a return of R_{NE} is observed when no event occurs.

Risk-neutral pricing implies that the price before the event is equal to the expected price at resolution, or $P = \pi P_E + (1 - \pi)P_{NE}$. The returns observed are $R_{NE} = (P_{NE} - P)/P$ when no event occurs and $R_E = (P_E - P)/P$ when the event does occur. These depend on π through P. The statistic of interest is the economic impact of the event on shareholder wealth, which is $(P_E - P_{NE})/P_{NE}$. If $P_E = \gamma P_{NE}$, then it is straightforward to show that

$$R_{NE} = [\pi(1-\gamma)]/[\pi(\gamma-1)+1],$$

$$R_E = [(1-\pi)(\gamma-1)]/[\pi(\gamma-1)+1]. \tag{1}$$

Observed returns are a nonlinear transformation of the probability that the event will occur and the true wealth effect. The estimate of γ implied by (1) is a weighted sum of observed returns, where the weights are inversely proportional to the probability of the realized outcome. In the cross-sectional econometric model implied by (1), we assume that the wealth effect γ depends on the type of amendment but not on the firm that adopts it, whereas the probability of the event π is firm-specific. Estimates of π are obtained from a probit model in which the dependent variable is the event and the independent variable is the vector of firm characteristics x. Estimation of the probit model by maximum likelihood yields a parameter estimate b. A consistent estimate of $\pi(x)$ is provided by $F(xb)$, where F denotes the normal distribution function. Substituting this estimate for π in (1) and estimating γ by nonlinear maximum likelihoods yields a two-stage estimator.

Two generalizations of this estimator are immediate and straightforward. The first involves multiple outcomes. If P_j is the value of the firm contingent on outcome j and we assume that $P_j = \gamma_j P_1$ with $\gamma_1 = 1$, then it is straightforward to show that $R_j = (\gamma_j - \pi \cdot \gamma)/\pi \cdot \gamma$ where π is the vector of probabilities and γ is the vector of wealth effects. Two-stage estimation involves recovering an estimate $\hat{\pi}$ of the probability vector π in the first stage, through multinomial probit or log-linear estimation, for example. These estimates are then used to extract the vector $\hat{\gamma}$ from the cross-section of returns in the second stage.

This estimator may be used to represent the interaction of agenda items, as well as the interaction between agenda items and strategic behavior. The interaction of two agenda items is captured by estimating wealth effects γ_1, γ_2, and γ_{12}, which occur with probabilities $\pi_1(x)$, $\pi_2(x)$, and $\pi_{12}(x)$, respectively. The effects of strategic behavior are estimated by letting the wealth effect of an amendment and its associated probability be $\gamma_1, \pi_1(x)$ when strategic behavior is absent and $\gamma_1^*, \pi_1^*(x)$ when strategic behavior occurs.

A second generalization of (1) allows γ to be a function of x. This formulation permits wealth effects to depend on ownership structure. The special case $\gamma(x) = \gamma$, described above, occurs when the wealth effect of a change in governance is not a function of the characteristics of the firm that experiences the change. Heckman (1978) shows that an econometric model with the general form $\gamma(x)$ is identified by the nonlinearity in probit or logit even when all of the variables used to explain $\pi(x)$ are also used to explain $\gamma(x)$.

Estimating any of these models with our choice-based sample requires a correction for sample selection bias. We employ the weighted maximum likelihood technique suggested by Manski and Lerman (1977), which is discussed in Amemiya (1985). Let w be the fraction of firms that adopt an antitakeover amendment in a random sample, and let $\tilde{w}$ be the fraction of firms that adopt an amendment in the combined sample. When we estimate the model (1) with the biased sample, the log-likelihood of each observation where an amendment is enacted is weighted by $w/\tilde{w}$ and the log-likelihood of all other observations is weighted by $(1-w)/(1-\tilde{w})$. The weighting procedure is identical for models of the form $\gamma = \gamma(x)$.

Construction of the weights to correct for selection bias requires a random sample. Our second sample excludes firms contained in the first sample, and is therefore not random. We investigated the sensitivity of our results to the weighting scheme, and found our conclusions concerning the impact of ownership structure on enactment and the wealth effects associated with enactment to be robust to variations in the weights.

3.2. *Ownership structure and the agenda*

The probit model used to estimate $\pi(x)$ is of independent interest, since it provides an assessment of the relative importance of ownership characteristics in determining the proxy agenda. Weighted maximum likelihood estimates of the model appear in table 6 for those agenda items that occur often enough to permit estimation using the choice-based sample. Lagrange multiplier (LM) statistics that express the effects of ownership variables on the likelihood of enactment, with all variables other than size and the constant

Table 6

Weighted probit analysis of the relationship between ownership structure and the proxy agenda for a sample of 345 NYSE- and Amex-listed firms. Table entries are estimated coefficients, with the absolute value of the robust t-statistic in parentheses. Lagrange multiplier tests for the significance of individual coefficients and groups of coefficients are presented in table 7.

	Dependent variable		
Independent variable[a]	All[b]	Fair[c] price	Entrench[d] board
Votes controlled by CEO	−2.45	−2.08	−2.49
	(2.53)	(2.28)	(2.31)
Votes controlled by all officers and directors	−0.96	−1.13	−1.90
	(1.01)	(1.14)	(1.70)
Votes controlled by officers who are blockholders	1.23	1.29	2.14
	(1.09)	(1.09)	(1.71)
Votes controlled by outside directors who are blockholders[e]	−1.25	−1.30	−1.92
	(1.19)	(1.21)	(1.40)
Votes controlled by affiliated investment plans[f]	3.01	3.63	4.73
	(1.73)	(2.09)	(2.60)
Votes controlled by institutional blockholders	−0.63	0.20	0.03
	(0.24)	(0.08)	(0.01)
Votes controlled by independent institutions who are blockholders[g]	0.27	−0.76	−0.74
	(0.11)	(0.29)	(0.19)
Institutional ownership	−0.31	−0.42	−0.37
	(1.22)	(1.27)	(1.22)
Size	0.13	0.12	0.13
	(2.44)	(2.09)	(2.09)
Number of observations	345	293	270

[a]Size is the log of the total equity value; all other variables are in levels. 'Votes controlled by' indicates the fraction of voting securities in which the individual or group enjoys beneficial interest and at least shared voting power.

[b]Includes 197 NYSE- and Amex-listed firms offering antitakeover charter amendments during 1984–1985, and a sample of 148 NYSE- and Amex-listed firms that do not offer any antitakeover charter amendments during the same period.

[c]Includes 145 NYSE- and Amex-listed firms offering fair-price or supermajority charter amendments during 1984–1985, and a sample of 148 NYSE- and Amex-listed firms that do not offer any antitakeover charter amendments during the same period.

[d]Includes 122 NYSE- and Amex-listed firms offering charter amendments during 1984–1985 that would help entrench the existing board, and a sample of 148 NYSE- and Amex-listed firms that do not offer any antitakeover charter amendments during the same period.

[e]Outside directors are directors who are not also officers of the corporation.

[f]Affiliated investment plans include employee stock ownership plans, payroll stock ownership plans, and thrift plans.

[g]Independent institutions have neither an identifiable client relationship with the firm that proposes the antitakeover amendment nor any shared officers or directors.

Table 7

Lagrange multiplier tests for the significance of individual coefficients and groups of coefficients in a weighted probit analysis of the relationship between the proxy agenda and ownership structure, in a sample of 345 NYSE- and Amex-listed firms.

Panel A: Estimated coefficients, with absolute value of robust t-statistics in parentheses, from a probit analysis where all variables other than a constant, firm size, and the variable of interest are constrained to be equal to zero. These are equivalent to Lagrange multiplier tests on the coefficients of interest.

	Dependent variable		
Independent variable[a]	All[b]	Fair[c] price	Entrench[d] board
Votes controlled by CEO	−1.90	−1.60	−1.93
	(3.47)	(3.07)	(3.02)
Votes controlled by all officers and directors	−1.05	−0.96	−1.27
	(2.97)	(2.73)	(3.08)
Votes controlled by officers who are blockholders	−0.83	−0.69	−0.75
	(2.14)	(1.77)	(1.72)
Votes controlled by outside directors who are blockholders[e]	−1.58	−1.68	−2.63
	(1.89)	(1.91)	(2.35)
Votes controlled by affiliated investment plans[f]	2.23	2.72	3.58
	(1.40)	(1.73)	(2.16)
Votes controlled by institutional blockholders	−1.62	−1.90	−1.19
	(1.47)	(1.61)	(0.98)
Votes controlled by independent institutions who are blockholders[g]	−1.56	−2.04	−1.15
	(1.36)	(1.64)	(0.92)
Institutional ownership	−0.19	−0.33	−0.24
	(0.91)	(1.18)	(0.90)

Panel B: Robust Lagrange multiplier statistics for the null hypothesis that the specified group of coefficients has zero power to explain the presence of the antitakeover amendments on the proxy agenda. The test statistic is distributed as χ^2 with degrees of freedom equal to the number of parameters being tested. Significance levels in parentheses are based on Monte Carlo simulations and differ significantly from the asymptotic values.

	Dependent variable		
Independent variable[a]	All[b]	Fair[c] price	Entrench[d] board
All independent variables[h]	26.30	25.82	29.69
	(0.01)	(0.01)	(0.01)
All ownership variables	13.99	14.44	17.36
	(0.08)	(0.07)	(0.03)
Blockholders as a group	9.15	10.25	12.34
	(0.10)	(0.07)	(0.03)
Nonblockholders[i]	7.45	6.40	7.18
	(0.06)	(0.09)	(0.07)
Board members	11.02	10.04	12.79
	(0.03)	(0.04)	(0.01)

Table 7 (continued)

Independent variable[a]	Dependent variable		
	All[b]	Fair[c] price	Entrench[d] board
Board members other than the CEO	6.10	5.70	8.30
	(0.11)	(0.13)	(0.04)
Institutional investors	1.61	2.37	0.87
	(0.66)	(0.50)	(0.83)

[a]Size is the log of the total equity value; all other variables are in levels. 'Votes controlled by' indicates the fraction of voting securities in which the individual or group enjoys beneficial interest and at least shared voting power.

[b]Includes 197 NYSE- and Amex-listed firms offering antitakeover charter amendments during 1984–1985, and a sample of 148 NYSE- and Amex-listed firms that do not offer any antitakeover charter amendments during the same period.

[c]Includes 145 NYSE- and Amex-listed firms offering fair-price or supermajority charter amendments during 1984–1985, and a sample of 148 NYSE- and Amex-listed firms that do not offer any antitakeover charter amendments during the same period.

[d]Includes 122 NYSE- and Amex-listed firms offering charter amendments during 1984–1985 that would help entrench the existing board, and a sample of 148 NYSE- and Amex-listed firms that do not offer any antitakeover charter amendments during the same period.

[e]Outside directors are directors who are not also officers of the corporation.

[f]Affiliated investment plans include employee stock ownership plans, payroll stock ownership plans, and thrift plans.

[g]Independent institutions have neither an identifiable client relationship with the firm that proposes the antitakeover amendment nor any shared officers or directors.

[h]Include a constant, firm size, and all ownership variables.

[i]Include CEO's, officers and directors, and institutions.

term constrained to zero, are reported in table 7. These statistics are not affected by collinearity among the regressors.

In both tables, the model is estimated using all observations for which either the specified amendment appears in the proxy or no amendment appears. Size is expressed in logarithmic form. The remaining variables, which measure the voting power of various parties, represent the fraction of the total outstanding voting rights for which the individual or group enjoys at least shared voting power.

Several common themes emerge. Variables representing the compensation of officers and directors (estimates are not reported) are econometrically irrelevant. This feature of the data persists across a large number of compensation definitions.

The fraction of total votes controlled by the CEO is negatively related to the likelihood that an amendment will be proposed, as is the fraction of votes controlled by officers and directors and the voting power of outside directors.[4]

[4]When the 18 firms excluded from the combined sample because of ownership by affiliated parties are included in this exercise, the estimated impact of ownership by outside directors becomes stronger, but there is no material effect on either the magnitude or statistical significance of the other coefficients.

The LM statistics in table 7 indicate that all of these variables have a significant impact on the likelihood of enactment, although the t-statistics in table 6 imply that, among these variables, only the voting power of the CEO has a marginal impact that is statistically significant given the impact of other ownership variables.

The marginal effect on the likelihood of enactment of block ownership by corporate officers is negative when the effect of other ownership characteristics is constrained to zero, but positive when this constraint is relaxed. This suggests that officers who are blockholders tend to oppose amendments, but are less vigorous in their opposition than officers who are not blockholders. Inspection of the 113 firms in the combined sample for which officers are also blockholders suggests an explanation: a large number of the blockholders are members of the firms' founding families. In many cases, proxy documents reveal that a relative of the blockholder is also an officer of the corporation. This blockholder profile is consistent with evidence presented by Morck, Shleifer, and Vishny (1989), who note that the presence of a member of the founding family on the top management team has a negative impact on the likelihood of both a hostile takeover and top management turnover.

The positive impact of ownership by affiliated investment plans on the likelihood that antitakeover amendments will appear in the proxy is striking, because of both the magnitude of the estimate and its contrast with the effect of increased ownership by corporate insiders. This block of votes has a very special feature: the individuals who own the cash flows are not necessarily those whose exercise the voting rights. When officers of the corporation control a block of votes and do not face the cost of value-decreasing change, they are apparently more willing to enact such changes than when they do bear that cost. This evidence is consistent with the position of Scholes and Wolfson (1990), who argue that the main motivation for the growth of ESOPs is their utility in defending against hostile takeovers.

Ownership by institutional investors does not appear to have a substantial impact on the introduction of antitakeover amendments. This observation must be qualified, since our data do not allow us to distinguish independent institutions from institutions that might be susceptible to pressure to support management. Estimated coefficients for institutional blockholders and independent institutions that are blockholders suggest that this distinction is not particularly important. This contrast between the estimates and t-statistics of table 6 and the corresponding estimates and their associated LM statistics in table 7 do, however, suggest that the weak marginal effect of institutional block ownership described in table 6 may be a consequence of collinearity. When the effect of other ownership variables is removed, the marginal impact of institutional block ownership increases and is marginally significant for fair-price amendments and all antitakeover amendments. All of these statements must be qualified by the observation that the variables represent-

ing institutional voting power are likely to contain significant measurement error.

Test statistics for the joint significance of groups of coefficients summarize the intuition in the individual results. Blockholders and board members account for most of the cross-sectional explanatory power of the model. CEOs and other directors and officers, rather than institutions, account for the impact of the nonblockholder group.

These results are further reinforced by a sensitivity analysis. If each ownership variable is held fixed at its mean, while the fraction of ownership controlled by a particular party is allowed to vary between 0 and 20%, we generate a curve that relates the probability that an amendment will be enacted to the faction of ownership by that party. These curves indicate that increasing ESOP ownership from 0 to 20% triples the probability that some type of antitakeover amendment will be enacted, from 8% to 22%. Increasing the ownership of the CEO from 0 to 20% causes the likelihood of adoption to fall from 11% to 4%. Variation in ownership by other parties has a far weaker influence on the probability that an antitakeover amendment will be implemented. Similar results obtain for the other categories of amendments.

Estimated coefficients are stable across the different types of charter amendments, consistently having the same sign and magnitude. This stability extends to different sets of regressors. We repeated the probit analysis using the sample that excludes firms listed on the Amex. The results for this sample are qualitatively similar to those reported in tables 6 and 7. The precision of the estimates is increased by using the more homogeneous sample.

3.3. Wealth effects

Weighted maximum likelihood estimates of the wealth effects associated with the different charter amendments are presented in table 8. Although the estimated coefficients are small (on the order of 1% for all models) they are also precise and stable across different return windows. The only point estimates that are not significantly different from zero are those estimated with a 31-day window.

Comparison of these results with those of table 3 indicates that estimated wealth effects that incorporate announcement probabilities exceed estimates derived from simple two-way comparisons by roughly 50%. This is consistent with our conjecture that anticipation diminishes announcement effects. The estimated wealth effects presented in table 8 do share one property with the estimates in table 3: there is little variation in wealth effects across the different categories of antitakeover amendments. Jarrell and Poulsen's conclusion that fair-price amendments do not have a negative impact on shareholder wealth is not sustained once we correct for the sample-selection bias, induced by anticipation of the event, that contaminates their estimates.

Table 8

Point estimates of the wealth effects of antitakeover amendments obtained from a two-stage, instrumental-variables estimator. Estimates are based on announcement returns for 191 NYSE- and Amex-listed firms offering antitakeover amendments during 1984–1985, and announcement returns for 141 NYSE- and Amex-listed firms that did not offer any type of antitakeover amendment during that same period. The probit models described in table 6 are the first step of the estimation procedure. Numbers in brackets denote the return window, with day 0 being the proxy mailing date. All returns are in percentages. Robust t-statistics for the null hypothesis of no wealth effect are in parentheses. All estimates are weighted to correct for sample-selection bias. The Standard and Poor's composite is used as the market index.

	Return window			Wald statistic[a]	No. of obs.[b]
	[−1, 1]	[−1, 0]	[−20, 10]		
All amendments	−1.38% (−2.30)	−0.89% (−2.92)	−0.82% (−0.61)	1.70	332
Fair price and supermajority	−1.17 (−1.96)	−0.83 (−2.58)	−0.73 (−0.51)	1.86	282
Entrench the board of directors	−1.17 (−1.89)	−0.66 (−1.94)	−0.96 (−0.68)	1.00	260

[a]The Wald statistic is a test of the null hypothesis that wealth effects are independent of ownership structure and firm size. The test statistic, which is calculated using the robust covariance matrix as in White (1982), is distributed χ^2 with eight degrees of freedom. Reported values, derived from the returns in days [−1, 1], fail to reject the null hypothesis at conventional levels of significance. Similar results are obtained for the other portfolios.

[b]Number of observations in the sample used for estimation. Each sample is composed of all observations from the portfolio of firms that do not propose amendments and all observations for which the specified type of antitakeover amendment is offered, excluding those observations for which returns are missing.

A Wald test based on the robust covariance matrix fails to reject the restriction $\gamma(x) = \gamma$ for any of the models. This implies that no significant increase in explanatory power is achieved by allowing wealth effects to depend on the variables representing ownership structure and firm size. It also indicates that the observed difference in announcement effects is in fact attributable to anticipation, rather than variation in the characteristics of individual firms.

The test statistics in the table are constructed using returns for $[-1, 1]$. Tests based on other sets of returns yield similar conclusions. In an unpublished appendix, available from the authors, we demonstrate that these results are robust to the exclusion of Amex-listed firms, to the exclusion of firms with contemporaneous announcements reported in the *Wall Street Journal*, and to the exclusion of firms from certain SIC codes that occur frequently. Thus, it does not appear that the results are specific to a particular type of firm.

3.4. Strategic behavior

3.4.1. Hidden amendments

The small number of hidden amendments precludes estimation of a structural ownership model for this type of amendment. We can, however, compare ownership structure at firms that engage in this activity with ownership structure at other firms that offer antitakeover amendments.

The data reveal a relationship between ownership structure at firms that enact hidden charter amendments and other firms that enact charter amendments that is, in several respects, similar to the one between ownership structure at all firms that enact charter amendments and ownership structure at firms that do not enact amendments. Corporate officers control a smaller fraction of the voting securities and hold fewer 5% blocks. Institutional ownership is greater, whereas ownership by affiliated investment plans is smaller. These differences are not statistically significant, however.

These relationships suggest the following explanation of hidden amendments. Managers who enact these amendments have weak ownership positions that lead them to seek contractual protection against takeovers. They do not enjoy the support of strong affiliated investment plans that might allow them to implement a standard fair-price amendment or board entrenchment provision. In the absence of opposition from strong independent directors, corporate officers are free to pursue the strategic behavior – in the form of a hidden amendment – that appears to be an effective substitute for voting power.

3.4.2. *Bundled agenda*

When the ownership characteristics of firms that bundle antitakeover amendments with antigreenmail amendments are contrasted with the ownership characteristics of other firms that offer antitakeover amendments, the relations we observe are roughly comparable to those observed with hidden charter amendments. Insiders at firms that offer bundled proxy agendas control fewer votes through direct ownership or affiliated investment plans and are unlikely to be held in check by independent blockholders. These differences are not statistically significant, however.

4. Discussion

4.1. *The distribution of returns*

In section 2, we noted that the distribution of returns shows a variance shift during the event period. This shift is readily explained in light of our evidence on the anticipation of announcement. In standard event studies, the event is associated with a shift in the mean of the return distribution for the portfolio of firms that experience the event. The abnormal return or residual of $r_i = \varepsilon_i$ is observed during the estimation period has mean 0 and variance σ^2, while the abnormal return of $r_i = \mu + \varepsilon_i$ observed during the event period has mean μ and variance σ^2. When events are anticipated, the *expected* announcement return of $r_i = \mu_i$ is firm-specific; the special case $\mu_i = \mu$ obtains only when the prior probability of announcement is the same for all firms. In this special case, the mean announcement return is a downward-biased estimate of the wealth effect associated with the event, but there is no shift in the variance of the distribution of abnormal returns. In the more general case, the distribution of abnormal returns has unconditional mean $E[\mu_i] = \mu$ and unconditional variance $E[\mu_i - \mu]^2 + \sigma^2$. The shift in variance of $E[\mu_i - \mu]^2$ is a consequence of variation in the prior probability of announcement across firms.

A second notable feature of the distribution of returns is the positive mean return realized by firms that do not announce antitakeover amendments. We interpret this statistic as an indication that failure to propose an amendment is a surprise, for at least some firms in the group. Similarly, the zero mean return realized by firms that propose antitakeover amendments suggests that the announcements are anticipated. Although we have been unable to detect a factor other than anticipation that would explain the distribution of returns, the asymmetry in the impact of anticipation suggests that a specification error may be generating these results.

4.2. *Sample-selection bias and the endogenous proxy agenda*

The differences we have documented between firms that do and do not propose antitakeover amendments implies that a selection bias arises when only firms that actually enact amendments are used to study the causes and consequences of changes in corporate governance. The empirical relevance of this issue is illustrated by several recent studies. Consider, for example, the findings of Brickley, Lease, and Smith (1988), who examine the relationship between ownership structure and voting behavior in a truncated sample. They find that both managerial ownership and the fraction of votes cast for an antitakeover amendment, and institutional ownership and the fraction of votes cast against these amendments are positively correlated. Our evidence suggests that inferences drawn from these correlations are likely to be misleading. We find that increased voting power in the hands of corporate officers makes it less likely that shareholders will be confronted with an antitakeover proposal, while the managerial voting pattern documented in Brickley et al. indicates that increased managerial ownership will result in stronger support for amendments that are proposed.

Since managerial support for an antitakeover amendment is irrelevant unless the amendment is actually proposed, the deterrent effect of managerial ownership is at least as important as managers' voting behavior in determining the circumstances under which an antitakeover amendment is likely to be enacted. A similar observation pertains to the apparent opposition of institutional investors to antitakeover amendments. We find the marginal impact of institutions on the proxy agenda to be quite weak. (This appears to be related to a lack of board representation.) That institutional investors are motivated to vote against antitakeover amendments is irrelevant if proposed amendments are in fact adopted.

Selection bias is also an issue in studies of ex post performance. Pound (1987) examines the relationship between the adoption of an antitakeover amendment and the subsequent likelihood of a takeover using a sample of firms that enact amendments and a control sample of firms that do not, but he does not account for self-selection. As a result, his findings do not permit one to distinguish the impact of an antitakeover amendment from the characteristics of firms that adopt those amendments. The negative correlation between the presence of an antitakeover amendment and the likelihood of a takeover Pound documents may indicate that managers who are successful in enacting amendments enjoy contractual protection against takeovers despite poor performance, or that those managers tend to outperform the market, making discipline inappropriate, or that firms adopting amendments tend to experience turnover initiated by the board of directors, which makes external discipline unnecessary. The contrast between the conclusions sug-

gested by the simple comparisons in tables 4 and 5 and those suggested by the models described in table 6 indicates that this issue is unlikely to be moot.

A final example of the influence of selection bias involves the cross-sectional regression of abnormal returns on ownership characteristics. Results of this type are reported by Jarrell and Poulsen (1987, table 7) and, more recently, by Agrawal and Mandelker (1990, table 6). Table 9 reports the results of estimating this type of model with our data. The regression described in panel A uses the entire sample. The results presented in panel B are based on a truncated sample similar to that used in the earlier studies. Neither specification involves a correction for selection bias.

The likelihood ratio statistic in the last column of the table tests the explanatory power of the two-stage nonlinear model of wealth effects against the nonnested alternative of a linear regression on ownership characteristics, using the procedure described in Vuong (1989). The data fail to reject the null, indicating that the addition of eight parameters representing ownership and firm size to the estimating equation provides no significant increase in explanatory power, once we have allowed for the impact of anticipation. It is not possible to test the explanatory power of the two-stage estimator directly against the truncated regression in panel B, but we can provide some evidence on the statistical validity of the second model. A Hausman test of that model soundly rejects the null of consistent estimation.[5] The same test applied to the model in panel A fails to reject the null. This procedure confirms what intuition would suggest, namely, that using a truncated sample leads to spurious inference.

4.3. Econometric issues

White (1982) and Vuong (1989) provide a set of statistical tools that may be used in the analysis of cross-sectional data of the type considered here. These afford inference in settings where the distributional assumptions used to construct parameter estimates are inaccurate. White offers procedures for detecting this type of misspecification and provides robust variants of the t-statistic, Wald statistic, and Lagrange multiplier test. Vuong considers situations where the models are nonnested and provides tools for model selection when neither candidate represents the data-generating process.

These results play an important role in our analysis. Estimation of either the probit model described in table 6 or the nonlinear model of wealth effects

[5]The Hausman test, as described by White (1982), compares two estimators that converge to the true parameter values under the null of correct specification, but diverge when the model is misspecified. One of these estimators must also be efficient under the null. The test statistics in the table are produced with an MLE estimator, which is efficient under the null, and a weighted least squares procedure.

Table 9

Ordinary least squares regression of announcement returns on firm characteristics without a correction for sample-selection bias. The dependent variable is the abnormal announcement return for days [−1, 1], calculated using the CRSP equally-weighted index as the market portfolio, with day 0 being the proxy mailing date. Robust t-statistics in parentheses.

Panel A: 332 NYSE- and Amex-listed firms, of which 191 offer antitakeover amendments[a]

Voting power of officers		Voting power of blockholders					Other		
CEO	All officers and directors	Officers	Independent directors[b]	Affiliated investment plans[c]	Institutions	Independent institutions[d]	Institutional ownership	Firm size	Likelihood ratio statistic[e]
−0.00	0.07	−0.08	−0.06	−0.03	−0.04	−0.00	−0.00	−0.00	0.06
(−0.16)	(2.27)	(−2.65)	(−1.60)	(−0.90)	(−0.71)	(−0.04)	(−1.81)	(−0.54)	

Panel B: 191 NYSE- and Amex-listed firms that offer antitakeover amendments[f]

Voting power of officers		Voting power of blockholders					Other		
CEO	All officers and directors	Officers	Independent directors[b]	Affiliated investment plans[c]	Institutions	Independent institutions[d]	Institutional ownership	Firm size	Likelihood ratio statistic[e]
0.06	0.04	−0.07	−0.05	−0.04	−0.06	0.03	−0.01	0.00	N.A.
(1.12)	(0.85)	(−1.89)	(−0.45)	(−1.21)	(−0.76)	(0.38)	(−0.96)	(0.11)	

[a]A Hausman (1978) test for model consistency yields a χ^2 statistic of 8.45, which fails to reject the null of consistent estimation.

[b]Outside directors are directors who are not also officers of the corporation.

[c]Affiliated investment plans include employee stock ownership plans, payroll stock ownership plans, and thrift plans.

[d]Independent institutions have neither an identifiable client relationship with the firm that proposes the antitakeover amendment nor any shared officers or directors.

[e]The likelihood ratio statistic for nonnested models is a test of the null hypothesis that the ability of the nonlinear estimator of wealth effects to explain the data cannot be distinguished from the ability of the cross-sectional model described in panel A to explain the data. The test statistic, which is described in Vuong (1989), is distributed as standard normal. The observed value fails to rejects the null, indicating that the addition of firm size and the eight ownership variables to the estimating equation provides no significant increase in explanatory power, once we have allowed for the impact of anticipation.

[f]A Hausman (1978) test for model consistency yields a χ^2 statistic of 61.46, which rejects the null of consistent estimation.

described in table 8 with standard procedures reveals no statistically significant cross-sectional relationship. An information matrix test reveals why this is so; in both cases, the null of information matrix equivalence is soundly rejected by the data, indicating that the assumption of normality in the error term has been violated. The insights realized from tables 6 and 8 suggest that these techniques may be applied profitably in other cross-sectional studies motivated by issues in corporate finance, where results are typically weak.

4.4. Employee stock ownership plans

The most significant voting block identified by our structural model of the proxy agenda comprises ESOPs and other affiliated investment plans, primarily payroll stock ownership plans and employee thrift plans. There are a number of distinctions between these vehicles for employee stock ownership. The pertinent one is that the trustees for stock held in ESOPs control the voting rights attached to shares that have not been passed through to the accounts of individual employees. As a consequence, a leveraged ESOP with insider trustees generally represents a dedicated block of votes.[6] The residual claimants to the cash flows associated with unallocated shares in the leveraged ESOP are the shareholders of the corporation (in those cases where the firm guarantees the loan used to create the ESOP) and employees who will purchase those shares at some later date. But these parties have neither the right to dispose of the shares nor the right to direct the voting of shares. The separation between ownership and control could hardly be more complete.

The role of ESOPs in facilitating the passage of antitakeover amendments raises a related issue. Insiders who act as ESOP trustees have a fiduciary responsibility to the individuals whose funds are invested in the plan. That responsibility may prevent a trustee from actively opposing a takeover bid. The burden of this responsibility has purportedly caused a number of firms to structure their ESOPs in a manner that precludes a conflict of interest in a takeover situation. For example, the Polaroid ESOP calls for the immediate pass-through of voting rights on all shares, both allocated and unallocated, in the event of a hostile tender offer. If, however, the votes associated with unallocated shares are used to erect takeover defenses, the disposition of voting rights in the event of a tender may be moot. The fact that those votes cannot be used to oppose an actual bid does not imply that the existence of the ESOP is immaterial for takeover activity.

[6]Gordon and Pound (1990) note that trustees frequently vote unallocated shares in the same proportion as allocated shares. This may mitigate incentive problems associated with ESOP voting. Note, however, that the parties who hold the allocated shares (current employees) are not the same as those who own the unallocated shares (future and current employees and current shareholders). We suspect that significant incentive problems remain.

4.5. Strategic behavior

Our evidence concerning the role of strategic behavior in the proxy process is largely circumstantial. A vote controlled by a party with board representation appears to have a greater impact on the likelihood of adoption than a vote controlled by a party without board representation, suggesting that control of the proxy agenda and the proxy voting mechanism is valuable. Hidden amendments, bundled agendas, and the ownership structure of firms that engage in these activities indicate why this might be the case.

One additional piece of evidence warrants mention. In our sample of amendments, we have only a single example of a charter amendment being rejected by shareholders. But during 1988 and 1989, shareholders rejected at least five antigreenmail amendments submitted to a vote. Inspection of the associated proxy statement reveals that the rejected proposals were submitted by shareholders and opposed by management. Although we can draw no strong conclusions from so small a sample, it is indeed remarkable that the support or opposition of management seems more important than the substance of the proposal.

5. Conclusions

The corporate charter is a contract that governs relations between managers and shareholders. We examine the process through which changes in that contract are implemented, and document shareholder support for wealth-decreasing changes in governance. Although the role of diffuse ownership and the associated public-goods problem cannot be overlooked in the search for an explanation, we provide evidence that strategic behavior may also play a role in proxy voting.

The results documented in this study have important implications for theories of security design and ownership structure, which are frequently set in an environment where contracting costs and ex post coordination or enforcement are not central issues. Disagreement among contracting parties can be induced by incomplete markets which generate disagreement about the value of state contingent claims.[7] In other cases, either asymmetric information about firm value or moral hazard on the part of management gives rise to conflict between shareholders and managers.[8] In all of these situations, shareholders are assumed to act as a group in designing and enforcing contracts.

[7]Grossman and Stiglitz (1977), DeMarzo (1989), Ekern and Wilson (1974), Allen and Gale (1988), and Dreyfus (1989) all take this approach.

[8]Harris and Raviv (1989) and Gale and Hellwig (1985) study security design in the context of moral hazard. Williams (1987) focuses on a setting with private information.

The failure of shareholders to exercise their contractual right to block wealth-decreasing changes in governance suggests that transaction costs and ex post coordination problems deserve a more central role. Where transaction costs are a major issue, a primary function of securities is to resolve the public-goods problem among agents who find it costly to gather information and enforce contracts. Calomiris and Kahn (1991) have recently applied these principles to banking. Our analysis suggests a similar approach may be appropriate in the analysis of corporate capital structures and security design.

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