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Classified boards, firm value, and managerial entrenchment $\stackrel{\text{tr}}{\sim}$

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Abstract

This paper shows that classified boards destroy value by entrenching management and reducing director effectiveness. First, I show that classified boards are associated with a significant reduction in firm value and that this holds even among complex firms, although such firms are often regarded as most likely to benefit from staggered board elections. I then examine how classified boards entrench management by focusing on CEO turnover, executive compensation, proxy contests, and shareholder proposals. My results indicate that classified boards significantly insulate management from market discipline, thus suggesting that the observed reduction in value is due to managerial entrenchment and diminished board accountability.

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1. Introduction

On April 23, 2003, 85% of the shares represented at Baker Hughes' annual meeting were voted in favor of a shareholder proposal asking the company to declassify its board and elect all directors annually. According to the Investor Responsibility Research Center (IRRC), Baker Hughes was only one of several companies facing shareholder agitation on classified boards during the 2003 proxy season. On its web site, IRRC identified 56 shareholder proposals dealing with classified boards and counted the issue as one of the two key governance-related proposals for the year.

The election of directors is the primary avenue for shareholders to participate in corporate affairs. In general, directors are elected for one-year terms at the firm's annual meeting. Activist shareholders and institutional investors argue that this encourages effective monitoring by giving shareholders the opportunity to retain or replace directors each year. In addition, annual elections ensure that the entire board can be replaced at once in the event of a hostile acquirer making a successful bid for the company. Since a hostile bid is more likely to succeed when the firm's performance is poor, it is argued that this threat motivates management to act in ways that maximize shareholder wealth.

Nevertheless, a majority of American corporations have classified boards. According to Rosenbaum (1998), 59% of major US public companies elected directors to staggered terms in 1998. Under this provision, the board is divided into separate classes, usually three, with directors serving overlapping multiyear terms. Thus, approximately one-third of all directors stand for election each year, and each director is reelected roughly once every three years.

Proponents contend that this provides a measure of stability and continuity that might not be available if all directors were elected annually, which is presumed to enhance the firm's ability to create value. Besides, Wilcox (2002) and Koppes, Ganske, and Haag (1999) argue that staggered elections encourage board independence by reducing the threat that a director who refuses to succumb to management will not be renominated each year. Furthermore, firms with classified boards might attract better directors if directors dislike going through the election process and prefer to avoid annual reelection. Staggered elections also might enhance shareholder value in takeover situations by allowing the target's board enough time and the perspective to accurately evaluate bids and solicit competing offers. Thus, the question of whether classified boards benefit or hurt shareholders is largely an empirical matter.

Jarrell and Poulsen (1987) study antitakeover charter amendments and find a negative but insignificant average abnormal return for their subsample of 28 classified board announcements. In contrast, Mahoney and Mahoney (1993) find a significantly negative abnormal return for a sample of 192 events. Bebchuk, Coates, and Subramanian (2002) analyze 92 hostile bids for US corporations between 1996 and 2000 and find that a classified board almost doubles the odds that a hostile target remains independent. They also find that classified boards do not confer higher premiums if the target is acquired. More recently, Bebchuk and Cohen (2005) study the effect of staggered elections on firm value as measured by Tobin's q. They find that classified boards are associated with a significant reduction in firm value.

In spite of these studies, several issues remain unresolved. For instance, are classified boards universally bad, or do some firms benefit from electing directors to staggered terms? This is an important question because a negative average effect need not imply the absence

of situations where staggered boards are beneficial. Another relevant but previously unexplored issue is whether staggered elections promote board stability and a culture of effective long-term strategic planning.

Perhaps the most important outstanding question is why and how classified boards destroy value. Generally, it is presumed that this is because these boards entrench management and reduce director accountability to shareholders. If so, however, there should be other evidence of problems beyond reduced firm value. For example, are classified boards less likely to fire the CEO for poor performance? Are outside directors less effective on classified boards? Do such boards provide CEOs with poorer compensation incentives? Do classified boards deter proxy contests? Do shareholder proposals at firms with classified boards receive greater shareholder support than at firms with non-classified boards? Are classified boards more or less likely to implement shareholder-approved proposals? In short, how, and to what extent, do classified boards insulate directors and top management from shareholders?

This paper focuses on these significant issues with a view to enriching the discourse on classified boards. As a starting point, I provide evidence of a negative relation between firm value and classified boards and show that this relation is robust to controls for other takeover defenses and concerns for endogeneity. I then extend the analysis to address the issues raised above. First, I test whether classified boards are beneficial in certain situations by focusing on the class of firms that is commonly suggested as likely to benefit most from staggered board elections, that is, those with relatively complex operations. I find no support for this conjecture: regardless of how I define complexity, classified boards are always negatively related to firm value.

Next, I test the hypothesis that staggered elections encourage board stability by relating classified boards to director turnover rates, which I measure as the proportion of 1995 directors no longer on the board in 2002. I find that electing directors to staggered terms has no significant effect on board turnover. In addition, there is no evidence that staggered elections enhance board independence, since classified boards are not significantly related to the turnover rate for independent directors.

Given these results, I then address the important question of how and why staggered boards destroy value by conducting a series of tests to evaluate the hypothesis that classified boards entrench management and reduce the effectiveness of directors. First, I analyze the effect of staggered boards on the likelihood of CEO turnover. I find that staggered elections reduce the probability of an involuntary turnover and the sensitivity of turnover to firm performance. The evidence further suggests that staggered elections reduce the effectiveness of outside directors in CEO replacement decisions. Weisbach (1988) shows that CEO turnover is more sensitive to firm performance when a majority of directors are outsiders. I find that this result depends on whether directors are elected to annual or staggered terms. For firms without classified boards, involuntary turnover is indeed more likely when a majority of directors are outsiders. For classified boards, however, an outsider-dominated board does not affect the performance sensitivity of forced turnover. In related results, I also show that classified boards reduce the sensitivity of CEO compensation to firm performance, deter proxy contests, and are less likely to implement shareholder-approved proposals.

My results cast a shadow of doubt on the claim that classified boards protect shareholder interests and enhance the firm's ability to create wealth. Rather, the evidence suggests that these boards are adopted for managerial self-serving purposes, and that the recent wave of shareholder activism directed at eliminating them could well be justified.

The remainder of the paper is organized as follows. In the next section, I describe the sample, methodology, and results of my analysis of the relation between classified boards and firm value. Section 3 considers whether classified boards benefit complex firms, while Section 4 focuses on how staggered elections affect board stability and long-term strategic planning. In Section 5, I focus on the question of how classified boards entrench management, providing evidence on CEO turnover, compensation incentives, proxy fights, and shareholder proposals. Section 6 concludes with a brief summary.

2. Classified boards and firm value

2.1. Sample construction

My sample is based on the 3,823 definitive proxy statements filed with the US Securities and Exchange Commission in 1995. From this group, I exclude mutual funds, real estate investment trusts, limited partnerships, subsidiaries, and firms with incomplete data in Compustat. This yields a sample of 2,166 firms. Reading each proxy statement, I identify 1,083 firms that elect directors to staggered terms. I then check subsequent proxy statements for each firm from 1996 through 2002 to identify those that declassified their boards during this period. There are 32 such firms. Similarly, I examine succeeding proxy statements for firms that practiced annual board elections in 1995 and identify 62 that subsequently classified their boards. I eliminate both groups from the sample to ensure that sample firms practice either annual or staggered elections throughout the empirical window of this study, thus reducing the sample to 2,072 firms.

An important issue in relating firm value to board structure is the potential for a selfselection problem, namely, the possibility of detecting a statistical relation between measures of firm performance and board structure which is a simple reflection of the choice of such structure being the result of performance to begin with. While I discuss several econometric attempts at addressing this issue in Section 2.4.1, here I discuss sampling procedures aimed at reducing the likelihood of such a spurious relation. Specifically, I check pre-1995 proxy statements of firms with classified boards to determine the year the classified board was adopted and exclude 51 firms that classified their boards after 1990. Since the study covers 1995–2002, this implies that the remaining firms have practiced staggered elections for at least five years prior to the period of my analysis. With this, I hope to mitigate the effects of any performance concerns that might have been associated with the decision to classify the board.

Thus, my final sample consists of 2,021 firms. Of these, 1,000 have classified boards while the remaining 1,021 elect directors to annual terms. Virtually all industries are represented in both the classified board and non-classified board sub-samples, and the distribution of firms across broad industry groups is similar for both categories. Thus, my analysis is not likely to suffer from industry-induced biases. Still, all my regressions include two-digit SIC code dummies to control for any remaining industry effects.

2.2. Variable definitions

I measure firm value using Tobin's q, which I calculate as the market value of common equity plus the book values of preferred equity and long-term debt divided by the book value of assets. While it is possible to construct more complicated versions of Tobin's q, Chung and Pruitt (1994) show that this relatively simple version performs quite as well as more sophisticated ones. Recent studies that employ the simple measure of Tobin's q include Callahan, Millar, and Schulman (2003) and Bebchuk and Cohen (2005).

Besides staggered elections, other variables are known to affect firm value. I control for these variables to isolate the effect of classified boards. The variables include board size (Yermack, 1996), board composition (Rosenstein and Wyatt, 1990), leadership structure (Rechner and Dalton, 1991), insider ownership (Morck, Shleifer, and Vishny, 1988),¹ outside block ownership (Bethel, Liebeskind, and Opler, 1998), independence of the nominating committee² (Callahan, Millar, and Schulman, 2003), and investment opportunities and current profitability (Yermack, 1996). I collect governance data from proxy statements and use the ratio of capital expenditures to total assets as a proxy for the availability of investment opportunities. Following Yermack (1996), I use return on assets, defined as the ratio of operating income before depreciation to total assets at the beginning of the year, as a measure of current profitability. I obtain the data on capital expenditures, operating income, and total assets from Compustat.

I also control for leverage because debt can enhance or hinder a firm's ability to create value by, for example, changing its contracting environment through constraints imposed by debt covenants. Using data from Compustat, I measure leverage as the ratio of long-term debt to total assets. As mentioned, I include two-digit primary SIC code dummies to control for industry differences, and the natural logarithm of total assets to control for differences in firm size.

Classified boards are only one of several potentially entrenching mechanisms that could serve as substitutes or complements. Gompers, Ishii, and Metrick (2003) show that classified boards are positively correlated with their index of 23 other provisions that weaken shareholder rights.³ Thus, I control for these provisions to isolate the effect of classified boards. However, only 1,156 (or 57%) of my sample firms are represented in Gompers, Ishii, and Metrick (2003); hence, simply including the G-index in my regressions results in a significant loss of sample firms. I address this difficulty in two ways. First, I collect data on state of incorporation and poison pills (which are two key components of the G-index) for my full sample and include these variables as individual controls. Second, I estimate separate regressions for the 1,156 firms with G-index data, using the G-index (excluding classified boards) as a control variable. Results for the latter regressions are similar to those for the full sample and are not reported. Further, in Section 2.4.2,

¹Following Morck, Shleifer, and Vishny (1988), the empirical corporate finance literature typically uses breakpoints to control for managerial ownership. I employ the same breakpoints as in Morck, Shleifer, and Vishny (1988), i.e., ownership levels of less than 5%, between 5% and 25%, and greater than 25%. My results are invariant to other breakpoints, as well as to a single continuous measure of managerial ownership.

²This variable equals one if the firm has a nominating committee of the board of directors and the CEO does not serve on it, zero otherwise.

³This index, called the G-index, consists of 24 shareholder rights provisions, including whether directors are elected to staggered terms. See Gompers Ishii, and Metrick (2003) for full details on the index's construction.

I analyze the robustness of my results to controls for individual takeover defenses included in the G-index.

Another important issue is whether staggered elections affect director quality, which can, in turn, affect firm value. Thus, I compare directors on classified and non-classified boards on several dimensions; however, I find no meaningful differences. The typical director serving a staggered term is 59 years old and sits on 0.3 other corporate boards, compared to 58 years and 0.2 boards for those on non-classified boards. Similarly, 10.7% of directors on classified boards are gray,⁴ compared to 11.6% of those on non-classified boards. Median ownership by all directors (excluding the CEO) is 5% for firms with classified boards and 7% for those with non-classified boards. The difference in ownership is statistically significant. In spite of these largely insignificant differences, I control for these variables in my regressions.

2.3. Descriptive statistics

Table 1 presents full-sample descriptive statistics for the variables described above. Nongovernance variables are measured each year from 1995 to 2002 and averaged for each firm. Zhou (2001) shows that cross-sectional variation (rather than within-firm variation) in governance-related variables explains performance differences across firms, since these variables are relatively time-invariant for individual firms. Hence, to reduce the cost of hand-collecting annual governance data from proxy statements, I use values obtained from the 1995 proxy filings. As a robustness check, I collect annual data for 215 firms randomly selected from the sample. Results obtained with this group are similar to those for the full sample.

As Table 1 shows, average and median Tobin's q are 1.38 and 1.00, respectively. The median board has nine members, 60% of whom are unaffiliated with the firm beyond their directorships. The median director is 58.9 years old, and serves on 0.2 other boards. On average, executive officers and directors beneficially own 21.0% of outstanding shares, with a median insider ownership of 13.2%. These numbers are similar to those reported by Holderness, Kroszner, and Sheehan (1999). Sixty-two percent of the sample firms have at least one unaffiliated shareholder controlling 5% or more of voting shares. Average and median block holdings are 10.4% and 7.3%, respectively. Table 1 also shows that average and median total assets are \$4.37 billion and \$411.0 million, both in 1994 dollars, while long-term debt averaged 19.26% of total assets. Between 1995 and 2002, the average firm earned a 12.2% annual return on assets while spending 6% of total assets on new capital investments.

2.4. Empirical analysis

I begin my analysis with univariate comparisons of Tobin's q for firms with classified boards versus those that elect directors annually. For the full eight-year period, average and median Tobin's q for classified boards are 1.25 and 0.99, compared to 1.51 and 1.02 for non-staggered boards. The differences are statistically significant at the 1% level. Similarly, average Tobin's q is significantly lower for classified boards in each of the eight

⁴A gray director is a non-employee director who has a business or personal relationship with the firm or any of its employee-directors.

Descriptive statistics

Tobin's q is the ratio of the sum of the market value of common equity, the book value of preferred equity, and the book value of long-term debt to the book value of assets. Classified board equals one when directors are elected to staggered terms, zero otherwise. Board size is the number of directors. Board composition is the fraction of directors who are outsiders with no business or personal relationship with the firm or any of its employeedirectors. Director age is as of 1995. Other directorships is the number of other corporate boards on which directors serve. Unitary leadership equals one when the CEO also serves as board chairman, zero otherwise. Insider ownership and block ownership are the proportion of outstanding voting shares controlled by all officers and directors, and unaffiliated holders of 5% or more, respectively. Independent nominating equals one when the firm has a nominating committee of which the CEO is not a member, zero otherwise. Delaware incorporation equals one if the firm is incorporated in the state of Delaware, zero otherwise. Poison pill equals one if the firm has a poison pill, zero otherwise. CAPEX/Assets is the ratio of capital expenditures (Compustat annual data item #128) to total assets. Leverage is the ratio of long-term debt to total assets. Firm size is the natural logarithm of total assets in 1994 dollars. Operating profitability is the ratio of operating income before depreciation to total assets at the beginning of the year. All governance variables are from 1995 proxy filings, while financial variables are obtained from Compustat and are averages over 1995–2002.

Variable	First quartile	Mean	Median	Third quartile	Standard deviation	Sample size
Tobin's q	0.6885	1.3841	1.0035	1.5865	1.2932	1,822
Classified board	0.0000	0.4948	0.0000	1.0000	0.5001	2,021
Board size	7.0000	8.9466	9.0000	11.0000	3.4182	2,021
Board composition	0.4286	0.5646	0.6000	0.7143	0.2046	2,021
Director age	55.6670	58.4320	58.8890	61.4280	4.7220	2,021
Other directorships	0.0000	0.4014	0.2222	0.6000	0.4762	2,021
Unitary leadership	0.0000	0.6813	1.0000	1.0000	0.4661	2,021
Insider ownership	4.2200	21.066	13.2000	32.2900	21.0970	2,021
Block ownership	0.0000	10.4330	7.2600	16.9000	11.5860	2,021
Independent nominating	0.0000	0.2716	0.0000	1.0000	0.4449	2,021
Delaware incorporation	0.0000	0.4656	0.0000	1.0000	0.4989	2,021
Poison pills	0.0000	0.4884	0.0000	1.0000	0.5000	2,021
CAPEX/Assets	0.0259	0.0597	0.0485	0.0763	0.0741	1,834
Leverage	0.0512	0.1926	0.1672	0.2835	0.1902	1,833
Total assets	92.1130	4368.6300	411.0100	1714.6100	19030.0000	1,834
Firm size	4.4690	6.0163	5.9784	7.4295	2.1895	1,834
Operating profitability	0.0686	0.1221	0.1336	0.1940	0.1862	1,834

years, with *p*-values of 0.05 or less. Comparable results obtain in median tests, except that the difference in medians is only significant for 1995, 1996, and 1999.

I subsequently estimate regressions controlling for the variables described in Section 2.2 above. The dependent variable in each regression is Tobin's q. The first regression employs a Fama–MacBeth framework, while the second is a pooled time-series cross-sectional regression with White (1980) robust standard errors. The third regression utilizes variables averaged over 1995–2002. Thus, although data for all years are employed, there is only one observation per firm in this last regression. Firms are included if they have at least three years of data. Results are presented in Table 2.

As the table shows, the coefficient on classified boards is negative and statistically significant at the 1% level in each regression. In Column 1 (the Fama-MacBeth specification), the coefficient is -0.1815. Thus, classified boards are associated with an 18.15 percentage point reduction in firm value as measured by Tobin's q. To put this in context, note that average Tobin's q for the full sample is 1.38 (Table 1); hence, a classified

Classified boards and firm value

The dependent variable in each regression is Tobin's q, calculated as the ratio of the sum of market value of common equity, book value of preferred equity, and book value of long-term debt to the book value of assets. Classified board equals one when directors are elected to staggered terms, zero otherwise. Board size is the number of directors. Board composition is the fraction of directors who are outsiders with no business or personal relationship with the firm or any of its employee-directors. Insider ownership I, II, and III measure managerial ownership less than 5%, between 5% and 25%, and greater than 25%, respectively. Block ownership is the proportion of outstanding shares owned by unaffiliated holders of 5% or more. Unitary leadership equals one when the CEO also serves as board chairman, zero otherwise. Average directorships is the average number of other corporate boards on which directors serve. Average director age is average age of all directors in 1995. Independent nominating equals one when the firm has a nominating committee of which the CEO is not a member, zero otherwise. Delaware incorporation equals one if the firm is incorporated in the state of Delaware, zero otherwise. Poison pill equals one if the firm has a poison pill, zero otherwise. CAPEX/Assets is the ratio of capital expenditures (Compustat annual data item #128) to total assets. Leverage is the ratio of long-term debt to total assets. Firm size is the natural logarithm of total assets in 1994 constant dollars. Operating profitability is the ratio of operating income before depreciation to total assets at the beginning of the year. The coefficients in Column 1 are based on Fama-MacBeth regressions. Column 2 is a pooled time-series cross-sectional regression with White (1980) robust standard errors. Column 3 uses values averaged over 1995-2002 for each firm. Each regression includes two-digit primary SIC code dummies, while the pooled regression also include year dummies. Standard errors are shown in parentheses under parameter estimates. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

Variable	1	2	3
	Fama-MacBeth	Pooled	Cross-sectional
Classified board	-0.1815***	-0.1900***	-0.1618***
	(0.022)	(0.022)	(0.057)
Board size	-0.0153***	-0.0151***	-0.0280***
	(0.005)	(0.004)	(0.011)
Board composition	0.1288***	0.1450**	0.1954
*	(0.049)	(0.062)	(0.150)
Insider ownership I	0.0311***	0.0373***	0.0531**
L.	(0.006)	(0.011)	(0.027)
Insider ownership II	-0.0156***	-0.0170***	-0.0174***
L.	(0.001)	(0.002)	(0.005)
Insider ownership III	-0.0055***	-0.0056***	-0.0045^{*}
L.	(0.001)	(0.001)	(0.002)
Block ownership	-0.0086***	-0.0093***	-0.0084^{***}
1	(0.001)	(0.001)	(0.003)
Unitary leadership	-0.0169	-0.0240	-0.0476
	(0.022)	(0.025)	(0.059)
Average directorships	0.1060***	0.1303***	0.1163
	(0.033)	(0.030)	(0.074)
Average director age	-0.0198^{***}	-0.0205***	-0.0220^{***}
	(0.002)	(0.002)	(0.006)
Independent nominating committee	-0.1212***	-0.1276***	-0.1420**
	(0.018)	(0.024)	(0.067)
Delaware incorporation	0.1164***	0.1114***	0.0902*
L L	(0.009)	(0.023)	(0.056)
Poison pill	-0.0314	-0.0275	-0.0275
1	(0.018)	(0.027)	(0.063)
CAPEX/Assets	1.6885***	1.3997***	0.6603*
,	(0.356)	(0.259)	(0.410)
Leverage	-0.3004*	-0.2153	-0.2924**

Variable	1	2	3
	Fama-MacBeth	Pooled	Cross-sectional
	(0.164)	(0.233)	(0.155)
Firm size	-0.0039	-0.0107	0.0301
	(0.027)	(0.013)	(0.023)
Operating profitability	1.6817***	1.6669***	0.7104***
	(0.207)	(0.204)	(0.243)
Adjusted <i>R</i> -squared	_	0.246	0.256
Sample size	1,954	11,464	1,817

Table 2 (continued)

board reduces the typical firm's q-ratio by 13.15% after controlling for other factors that could affect firm value. Since the market value for the average firm during this period is \$6.05 billion, a 13.15% reduction in q-ratio amounts to a \$795 million reduction in the typical firm's market value. If median rather than average values are used, the estimated reduction in market value is \$74.6 million. Although less dramatic than the figure based on means, it is still economically significant.

I also estimate (unreported) annual cross-sectional regressions for each year in the sample period. The coefficient on classified board is negative and significant in each regression, with *p*-values of 0.01 or better in all cases. Thus, the results presented above are not driven by any particular year. Rather, classified boards are associated with a significant depression in firm value each year during the entire eight-year period. These results are similar to those reported by Bebchuk and Cohen (2005). Also as reported by these authors, I find a stronger effect among firms with charter-based classified boards relative to those with bylaws-based classified boards: -0.2017 compared to -0.1390.

2.4.1. Possible self-selection problem

A potential difficulty with the above results is the possibility of self-selection, since poorly performing managers could select classified boards as a means of protecting themselves from takeover-related discipline. If poor performers adopt staggered elections, then cross-sectional regressions like the ones reported here will depict a negative relation between classified boards and firm value, even though this is simply because poor performers choose to classify their boards.

As discussed in Section 2.1, I require firms to practice staggered elections for at least five years before admitting them to the sample to circumvent this problem. This is based on the logic that, several years after adopting a classified board, it seems more plausible that performance variation is due to board classification. A reverse causation story where firms institute staggered elections because they expect poor performance five to thirteen years later seems unnatural.

Nevertheless, I perform several additional tests to address this concern. First, I note that all classified boards in my sample were adopted by 1990, and that Morck, Shleifer, and Vishny (1989) show that hostile takeovers in this period were often preceded by poor financial performance. Consequently, I control for prior performance using two alternative variables: operating profitability as measured by return on assets and Tobin's q, both averaged over 1985–1989.

Secondly, I partition the sample into quartiles based on Tobin's q around the time the board was classified. Again, since all classified boards in my sample were adopted by 1990, I base the partition on average q-ratio over 1985–1989. I classify firms with q-ratios higher than the third quartile during this period as historical top performers. Mean and median q for this group during 1985–1989 are 3.13 and 2.16, respectively, compared to 1.42 and 1.00 for the full sample. The intuition is that firms that classified their boards in this group could not have done so because of poor performance, since they were top performers around the time they classified their boards. Thus, a subsequent negative relation between firm value and classified boards among these firms will suggest that the result does not simply portray the effects of a self-selection problem. Finally, I employ three-stage least squares (3SLS) to estimate a system of equations in which Tobin's q and classified boards are jointly determined. I use the (natural logarithm of the) number of shareholders and historical Tobin's q, both averaged over 1985–1989, as instrumental variables in first-stage regressions. Results of the above-mentioned tests are similar to those in Table 2, and are not presented to conserve space. In particular, classified boards remain significantly negatively associated with Tobin's q, with *p*-values of 0.05 or better.

I also perform additional tests by focusing on two relatively exogenous circumstances surrounding the adoption of classified boards. First, I consider whether classified boards have a different effect on firm value among firms incorporated in Massachusetts. On April 18, 1990, Massachusetts enacted legislation establishing staggered elections as the default mode for electing directors to the boards of public firms incorporated in that state. Firms are permitted to opt out of this provision, either by an action of the board or by shareholder approval at an annual meeting. My sample contains 52 firms incorporated in Massachusetts, of which 38 have classified boards.

I estimate regressions like those in Table 2 to test whether classified boards have a different effect on value for Massachusetts firms. In one regression, I use the full sample and include a new variable interacting Massachusetts incorporation and classified boards. In another, I include only Massachusetts firms with classified boards alongside firms with non-classified boards. In both regressions, I find no significant relation between classified boards and value for Massachusetts firms, with *p*-values of 0.27 and 0.25, respectively. Thus, it appears that classified boards have no effect on firm value in Massachusetts; alternatively, it is possible that the lack of significance is due to the small number of Massachusetts firms with classified boards in my sample.⁵ As a further robustness check, I estimate regressions excluding Massachusetts firms. In these regressions, the classified board variable is negative and statistically significant at the 1% level.

Next, I examine the impact of classified boards on firm value among firms with such boards at their IPO dates, based on the logic that the decision to adopt a classified board is less likely to be endogenous for these firms. Using data from the Center for Research in Security Prices (CRSP) to determine IPO dates, I identify 71 firms with classified boards at IPO. I then estimate regressions similar to those for Massachusetts firms. I find that classified boards are significantly negatively related to firm value for these firms, although

⁵I check the Business Corporation Act of each of the 50 states and the District of Columbia for its provisions on classified boards. As it turns out, every other state, as well as the District of Columbia, permits but does not require corporations to have classified boards. Consequently, the Massachusetts analysis cannot be extended to any of the other states.

the coefficient is smaller in absolute terms (-0.11 vs. -0.17) than for other firms with classified boards.

Overall, the results presented in this section do not support a self-selection argument. Rather, they are consistent with classified boards hindering the effectiveness of corporate governance and hurting the firm's ability to create value for its shareholders.

2.4.2. Exploring the impact of other takeover defenses

The effectiveness of classified boards in entrenching management could depend significantly on other takeover defenses available to the firm. For example, by blending the necessity for at least two annual meetings to remove the board with the ability to dilute the holdings of an unwanted bidder, a classified board combined with a poison pill practically ensures that a firm can only be acquired with the consent of its directors. Similarly, combining staggered elections with provisions authorizing blank check preferred stock or limiting the power of shareholders to call special meetings or to act by written consents potentially increases the entrenchment effects of classified boards. Thus, I examine the association between classified boards and other takeover defenses and the robustness of the relation between firm value and classified boards to this association.

Using data from Gompers, Ishii, and Metrick (2003), I find that the most widespread takeover defense adopted by classified boards is the ability to issue blank check preferred shares, authorized at 90.7% of these firms. Other common defenses are poison pills (61.3%), limits on special meetings (44.5%), limits on shareholder actions by written consents (43.2%), supermajority voting (28.1%), and dual class stock (5.7%). Virtually all (99.7%) are protected by at least one of these takeover defenses.

I test the sensitivity of my results to these defenses by estimating Fama-MacBeth regressions using each defense in addition to, in place of, and interacted with classified boards. Poison pill regressions are estimated over the full sample, while regressions for the other defenses are estimated over the set of firms with available data.⁶ Each regression controls for all the variables in the main regressions reported in Table 2. Results are presented in Panel A of Table 3. As the table shows, results are robust to the inclusion of each variable individually and all six variables together: the classified board variable remains negative and statistically significant at the 1% level in all cases, regardless of whether or not each specific defense is included in the regression. It becomes slightly more negative in four cases (blank check preferred stock, limits on special meetings, limits on written consents, and dual class stock) and slightly less negative in two (poison pills and supermajority voting). When I include all six defenses, it increases in absolute value, from -0.1035 to -0.1232, both significant at the 1% level. Furthermore, with the exception of poison pills, which is cut in half and loses its significance when I include classified boards in the same regression, the other takeover defenses are generally unaffected by classified boards.

I also examine the association between classified boards and state antitakeover statutes to test the robustness of my results to these laws. I find that 91.8% of firms with classified boards are also protected by state business combination laws, while 40.4%, 33.9%, 20.8%, 5.4%, and 3.8% are protected by fair price, control share acquisition, antigreenmail, director duties (stakeholder), and cash-out laws, respectively. Appendix 1 of Gompers,

⁶As stated earlier, I have takeover defenses data (from Gompers, Ishii, and Metrick, 2003) for 1,156 of the 2,021 sample firms.

examining the effect of other takeover defenses on the relation between firm value and classified boards. Panel A uses on provisions imposed by state laws. The variables in Panel A are self-explanatory. In Panel B, Business n on certain kinds of transactions (e.g., asset sales, mergers) between a large shareholder and the firm for a period e shareholder's stake passes a pre-specified (minority) threshold." Fair price laws "typically require a bidder to during a specified period of time before the commencement of a tender offer." Control share acquisition laws ote on whether a newly qualifying large shareholder has voting rights." Antigreenmail laws prohibit greenmails reholders or approved by a shareholder vote." Director duties laws "allow directors to consider constituencies " Cash-out laws "enable shareholder vote." Director duties laws "allow directors to consider constituencies " Cash-out laws "enable shareholders to sell their stakes to a "controlling" shareholder at a price based on the efficitions are taken from Appendix 1 of Gompers, Ishii, and Matrick (2003). The poison pill regression are regressions for the other defenses are estimated over the set of 1,156 firms with available data. Each regression or stare shown in parenthese under parameter estimates. Levels of significance are indicated by ***, **, and * for	son pills Limits on Limits on Super-majority Dual class stock All six variables special meetings written consent voting	5.7% 44.5% 43.2% 28.1% 5.7%	1857^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***}	0.022) (0.020) (0.020) (0.020) (0.020) (0.020)	1815^{**} -0.1170^{***} -0.1057^{***} -0.0879^{***} -0.1054^{***} -0.1232^{***}	0.022) (0.020) (0.021) (0.020) (0.021) (0.021)	0.0600^{***} 0.0391^{**} -0.0160 -0.1115^{***} -0.0405 -0.0405	(0.018) (0.014) (0.017) (0.022) (0.026)	0.0314 0.0654^{***} 0.0121 -0.0900^{***} -0.0585^{*} $$	0.018) (0.013) (0.017) (0.021) (0.029)	0.0015 0.0212 -0.0307* -0.1252*** 0.0399** Includes six	0.014) (0.021) (0.014) (0.024) (0.016) interaction	terms $-0.1139^{***} -0.1139^{***} -0.0909^{***} -0.0691^{***} -0.1063^{***} -0.1289^{***}$	0.020) (0.023) (0.019) (0.020) (0.024) (0.066)	1863^{***} -0.0927^{***} -0.1216^{***} -0.1943^{***} -0.0664^{**} -0.1745^{***}	
ariables in P. mergers) bet rity) thresho mencement (der has votin irector dutie r stakes to a rs, Ishii, and ver the set o nates. Levels	Super- it vo	28	-0.1	.0	-0.0	.0)	-0.1	(0.	-0.0	(0.	-0.1	(0)	-0.0	(0.	-0.1	
eover defenses or state laws. The vv (e.g., asset sales, e-specified (mino e before the com g large sharehold eholder vote." D olders to sell thei dix 1 of Gompe are estimated o er parameter esti	Limits on written conser	43.2%	-0.1035^{***}	(0.020)	-0.1057^{***}	(0.021)	-0.0160	(0.017)	0.0121	(0.017)	-0.0307^{*}	(0.014)	-0.0909^{***}	(0.019)	-0.1216^{***}	
ne effect of other tak visions imposed by a cinds of transactions r's stake passes a pr scified period of tim ner a newly qualifyin approved by a shareh aws "enable shareh aws "enable shareh taken from Appen r taken from Appen r the other defense n in parenthese und	Limits on special meetings	44.5%	-0.1035^{***}	(0.020)	-0.1170^{***}	(0.020)	0.0391^{**}	(0.014)	0.0654^{***}	(0.013)	0.0212	(0.021)	-0.1139^{***}	(0.023)	-0.0927^{***}	
essions examining th el B focuses on prov ratorium on certain l after the shareholde I to any during a spe lers to vote on wheth ers to vote on wheth all shareholders or merger." Cash-out 1 These definitions are these definitions are while regressions for lard errors are showr	Poison pills	61.3%	-0.1857^{***}	(0.022)	-0.1815^{***}	(0.022)	-0.0600^{***}	(0.018)	-0.0314	(0.018)	-0.0015	(0.014)	-0.1848^{***}	(0.020)	-0.1863^{***}	
"ama-MacBeth regr lefenses, while Pane that "impose a mor hree and five years e highest price paid nterested sharehold nterested shares." T notequired shares." T nple of 2,021 firms, es in Table 2. Stand ctively.	Blank check preferreds	ver provisions 90.7%	-0.1035^{***}	(0.020)	-0.1150^{***}	(0.023)	0.1025^{**}	(0.044)	0.1243^{**}	(0.047)	0.1036	(0.053)	-0.1942^{**}	(0.065)	-0.0906^{***}	(0.010)
This table summarizes I focuses on firm-adopted c combo refers to state laws usually ranging between th pay to all shareholders thurequire a majority of disi "unless the same repurcha other than shareholders whighest price of recently a estimated over the full sar controls for all the variable 1%, 5%, and 10%, respect		A: Firm-adopted antitakeo Overlap with classified	ooard Classified board.	variable excluded	Classified board,	variable included	Variable, classified	board excluded	Variable, classified	board included	Classified	board $ imes$ variable	Classified board.	Interaction term	included Sum of classified board	

Table 3 Classified boards, other takeover defenses, and firm value

512

B: Antitakeorer provisions imposed by state law Overlap with classified 91.8% 40.4% 33.9% 20.8% 5.4% Doverlap with classified 91.8% 40.4% 33.9% 20.8% 5.4% board Classified board, -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1035^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.1033^{***} -0.0084^{***} -0.0031^{***} -0.0031^{***} -0.0031^{***} -0.0031^{***} -0.0031^{***} -0.0031^{***} -0.0031^{***} -0.0031^{***} -0.0031^{***} -0.0031^{***} -0.0031^{***} -0.0032^{***} -0.0031^{***}		Business combo	Fair price	Control share acquisition	Anti-greenmail	Director duties	Cash-out	All six variables
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	B: Antitakeover provisions Overlap with classified	imposed by state law 91.8%	, 40.4%	33.9%	20.8%	5.4%	3.8%	97.0%
Classified board, -0.1031^{***} -0.0961^{****} -0.0931^{****} -0.1033^{****} -0.1033^{****} -0.1033^{****} -0.1031^{****} -0.0020) (0.020) variable included (0.021) (0.022) (0.021) (0.020) (0.020) Variable, classified 0.0231 -0.0830^{****} -0.1370^{****} -0.1370^{****} -0.0084^{****} -0.0084^{****} -0.0071^{****} -0.0087^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0071^{****} -0.0357^{****} -0.0358^{****} -0.0368^{****} -0.0368^{****} -0.0368^{****} -0.0368^{****} -0.0368^{****} -0.0368^{****} -0.0368^{****} -0.0368^{****} -0.0370^{***} -0.070^{***} -0.0737^{****} -0.071^{*} (0.024) (0.024) (0.024) (0.021) $(0.024)^{****}$ -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.1017^{****} -0.1017^{****} -0.020^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.1017^{****} -0.130^{****} -0.020^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.0737^{****} -0.137^{****} -0.1305^{****} -0.1305^{****} -0.0737^{****} -0.137^{****} -0.1305^{****} -0.0737^{****} -0.137^{****} -0.1335^{****} -0.0737^{****} -0.1387^{****} -0.1335^{****} -0.1303^{****} -0.1303^{****} -0.1303^{****} -0.1303^{****} -0.1303^{****} -0.1387^{****} -0.1385^{****} -0.1385^{****} -0.1337^{***} -0.1337^{***} -0.1337^{***} -0.1337^{***} -0.1387^{***} -0.1387^{***} -0.1337^{***} -0.1337^{***} -0.1387^{***} -0.1337^{***} -0.1337^{***} -0.1387^{***} -0.1337^{***} -0.1337^{***} -0.1387^{***} -0.1337^{***} -0.1337^{***} -0.1387^{***} -0.1333^{***	ooard Classified board, variable excluded	-0.1035^{***}	-0.1035^{***}	-0.1035^{***}	-0.1035^{***}	-0.1035^{***}	-0.1035^{***}	-0.1035^{***}
variable included (0.021) (0.022) (0.019) (0.020) (0.020) Variable included 0.0294 -0.0830^{***} -0.1370^{****} -0.0908^{***} -0.0844 board excluded (0.033) (0.022) (0.041) (0.022) (0.041) Variable, classified 0.0331 -0.0867^{***} -0.1243^{****} -0.0087^{***} -0.0071 Variable, classified (0.032) (0.021) (0.041) (0.022) (0.041) Variable, classified 0.0331 -0.0867^{***} -0.1243^{***} -0.0072 (0.041) board included (0.032) (0.021) (0.021) (0.022) (0.041) board included 0.1064 -0.1300^{***} -0.1243^{***} -0.0857^{***} -0.0368 board × variable (0.034) (0.024) (0.021) (0.021) (0.021) (0.024) board × variable (0.034) (0.024) (0.021) (0.021) (0.021) (0.024) classified board, -0.2008^{***} -0.0366^{****} -0.0737^{***} -0.1077^{***} -0.1077^{***} classified board -0.2008^{***} -0.0326^{***} -0.0737^{***} -0.1077^{***} -0.1077^{***} classified board -0.042 (0.024) (0.021) (0.020) (0.020) included -0.044^{***} -0.1834^{***} -0.2202^{***} -0.138^{***} sum of classified board -0.042 (0.024) (0.023) (0.02) (0.03)	Classified board,	-0.1031^{***}	-0.0961^{***}	-0.0931^{***}	-0.1013^{***}	-0.1033^{***}	-0.1022^{***}	-0.0896^{***}
Variable, classified 0.0294 -0.0830^{***} -0.1370^{****} -0.0908^{***} -0.0084 board excluded (0.033) (0.022) (0.041) (0.021) (0.041) variable, classified 0.0331 -0.0867^{***} -0.1243^{****} -0.0072 (0.041) board included (0.032) (0.021) (0.021) (0.041) -0.0357^{***} -0.0071 board included 0.0331 -0.0867^{****} -0.1243^{****} -0.0857^{***} -0.0071 board included (0.032) (0.021) (0.021) (0.022) (0.041) board variable (0.034) (0.024) (0.021) (0.021) (0.024) board × variable (0.034) (0.024) (0.021) (0.021) (0.024) classified board, -0.2008^{***} -0.0700^{**} -0.0737^{***} -0.1017^{***} classified board (0.042) (0.024) (0.021) (0.020) (0.020) included -0.2008^{***} -0.0736^{***} -0.0737^{***} -0.1017^{***} sum of classified board -0.044^{***} -0.1834^{***} -0.0737^{***} -0.10737^{***} included -0.044^{***} -0.1834^{***} -0.2202^{***} -0.1385^{***} and interaction term(s) (0.020) (0.024) (0.023) (0.020) (0.021) (0.022) (0.021) $(0.022)^{***}$ -0.1385^{***}	variable included	(0.021)	(0.022)	(0.019)	(0.020)	(0.020)	(0.021)	(0.021)
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Variable, classified	0.0294	-0.0830^{***}	-0.1370^{***}	-0.0908^{***}	-0.0084	0.0038	
Variable, classified 0.0331 -0.0867^{***} -0.1243^{****} -0.0857^{***} -0.0071 board included (0.32) (0.021) (0.040) (0.041) board included (0.32) (0.021) (0.040) (0.041) Classified 0.1064 -0.1300^{***} -0.0700^{**} -0.1455^{***} -0.0368 board × variable (0.034) (0.024) (0.021) (0.024) (0.024) Classified board, -0.2008^{***} -0.0534^{**} -0.0700^{**} -0.1465^{***} -0.0368 classified board, -0.2008^{***} -0.0534^{**} -0.0700^{**} -0.1455^{***} -0.0368 interaction term (0.042) (0.024) (0.021) (0.020) (0.020) included -0.044^{***} -0.1834^{***} -0.1836^{***} -0.1375^{***} -0.1375^{***} sum of classified board -0.044^{***} -0.1834^{***} -0.202^{***} -0.1375^{***} -0.1385^{***} and interaction term(s) (0.020) (0.024) (0.024) (0.029) (0.037)	board excluded	(0.033)	(0.022)	(0.041)	(0.022)	(0.041)	(0.083)	
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Variable, classified	0.0331	-0.0867^{***}	-0.1243^{***}	-0.0857^{***}	-0.0071	0.0066	
Classified 0.1064 -0.1300^{**} -0.0700^{**} -0.1465^{***} -0.0368 board × variable (0.034) (0.024) (0.021) (0.024) (0.034) (0.024) (0.021) (0.024) (0.024) Classified board, -0.2008^{***} -0.0366^{***} -0.0737^{***} -0.1017^{***} Classified board, -0.2008^{***} -0.0306^{***} -0.0737^{***} -0.1017^{***} interaction term (0.042) (0.024) (0.021) (0.020) (0.020) included -0.0944^{***} -0.1834^{***} -0.1505^{***} -0.1385^{***} -0.1385^{***} and interaction term(s) (0.020) (0.024) (0.033) (0.029) (0.037)	board included	(0.032)	(0.021)	(0.040)	(0.022)	(0.041)	(0.081)	
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Classified	0.1064	-0.1300^{***}	-0.0700^{**}	-0.1465^{***}	-0.0368	-0.1713^{***}	includes six
Classified board, -0.2008^{***} -0.0534^{**} -0.0806^{***} -0.0737^{***} -0.1017^{***} interaction term (0.042) (0.024) (0.021) (0.020) (0.020) included -0.0944^{***} -0.1834^{***} -0.1505^{***} -0.2202^{***} -0.1385^{***} and interaction term(s) (0.020) (0.024) (0.033) (0.029) (0.037)	board \times variable	(0.034)	(0.024)	(0.031)	(0.021)	(0.024)	(0.037)	interaction
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	Classified board,	-0.2008^{***}	-0.0534^{**}	-0.0806^{***}	-0.0737^{***}	-0.1017^{***}	-0.0975***	terms -0.1985***
Sum of classified board -0.0944^{**} -0.1834^{***} -0.1505^{***} -0.2202^{***} -0.1385^{***} and interaction term(s) (0.020) (0.024) (0.033) (0.029) (0.037)	interaction term included	(0.042)	(0.024)	(0.021)	(0.020)	(0.020)	(0.020)	(0.044)
	Sum of classified board and interaction term(s)	-0.0944^{***} (0.020)	-0.1834^{***} (0.024)	-0.1505^{***} (0.033)	-0.2202^{***} (0.029)	-0.1385^{***} (0.037)	-0.2688^{***} (0.045)	-0.3062^{***} (0.047)

O. Faleye / Journal of Financial Economics 83 (2007) 501-529

Ishii, and Metrick (2003) provides brief discussions of these laws. In all, 97.0% of all firms with classified boards are protected by at least one state antitakeover statute.

Panel B of Table 3 presents the results of regressions similar to those in Panel A for these variables. It shows that classified boards remain significantly negatively related to firm value at the 1% level, regardless of whether or not I include each variable (or all six of them) in the regression, although it is slightly less negative when the state law variables are included. Similarly, each state law variable is unaffected by the inclusion of classified boards, maintaining its sign and level of significance. Overall, these tests suggest that the negative effect of classified boards on firm value is not driven by other takeover defenses, whether firm-adopted or state-imposed.

2.4.3. Event study evidence

An alternative but complementary approach to evaluating the effect of classified boards on firm value is to examine the stock price reaction to board classification and declassification announcements. In an efficient market, the announcement-period return reflects the wealth effect of adopting or repealing classified boards. If classified boards destroy value, then negative abnormal returns would accompany board classification announcements while firms eliminating classified boards would experience a positive stock price reaction. The opposite holds if classified boards enhance shareholder wealth.

I define the announcement date as the earliest of the following: the date of signing the proxy statement containing management's proposal to classify or declassify the board, the date the statement is filed with the SEC, the date it is mailed to shareholders, and the date the proposal is first reported in Dow Jones & Reuters' Factiva. The board classification sample consists of 166 proposals with verifiable announcement dates between 1986 and 2002. Of these, 159 have sufficient data in CRSP to allow computation of abnormal returns. In addition, 29 of the 32 board declassification events during 1996-2002 have verifiable announcement dates. Of these, 24 have sufficient CRSP data.

Following standard event study methodology, I estimate the market model for each firm over a period of 255 days (-301, -46) preceding the announcement date and then use estimated parameters to calculate abnormal returns for various windows around the event date. Results are summarized in Table 4. As Panel A of the table shows, the average cumulative abnormal return (CAR) for the adoption of classified boards is negative for each of the five event windows examined, ranging from -0.34% for the [-1, +1] window to -1.78% for the [-5, +5] window. It is statistically significant in three windows, namely, [-1, +1], [-5, +1], and [-5, +5]. The proportion of negative CARs ranges from a low of 52% over the [-1, 0] window to a high of 61% for the [-5, +5] window. These numbers are comparable to those found in earlier studies. Jarrell and Poulsen (1987) report an average CAR of -1.29% over the [-20, +10] window, with 57% negative CARs, while Mahoney and Mahoney (1993) report -1.96% over [-50, +10].

Panel B of Table 4 presents results for the repeal of classified boards. In this case, the average CAR is positive for each event window, ranging from 0.78% for the [-1, +1] window to 1.34% for the [-5, 0] window. It is statistically significant in two of the five event windows, namely, the [-5, 0] and [-5, +1] windows. The proportion of positive CARs ranges from 54% for the [-5, +1] window to 63% for the [-1, +1] window.

These results show that investors react negatively to the establishment of classified boards and welcome their elimination, which contradicts the claim that classified boards are beneficial to shareholders. Rather, the results are consistent with the evidence reported

Market response to the adoption and elimination of classified boards

The announcement date is the earliest of the following: the date of signing the proxy statement containing management's proposal to classify or declassify the board, the date the statement is filed with the SEC, the date it is mailed to shareholders, and the date the proposal is first reported in Dow Jones & Reuters' Factiva. *P*-values are based on standardized *z*-statistics. Levels of significance are indicated by ** and * for 5% and 10%, respectively.

Window	CAR	<i>P</i> -value	% Negative	Sample
A: Adoptions				
[-1, 0]	-0.35%	0.127	52%	159
[-1, +1]	$-0.34\%^{*}$	0.098	56%	159
[-5, 0]	-0.71%	0.112	55%	159
[-5, +1]	$-0.70\%^{*}$	0.086	53%	159
[-5, +5]	-1.78%**	0.017	61%	159
Window	CAR	<i>P</i> -value	% Positive	Sample
B: Eliminations				
[-1, 0]	0.84%	0.153	63%	24
[-1, +1]	0.78%	0.196	67%	24
[-5, 0]	1.34%**	0.048	58%	24
[-5, +1]	1.28%*	0.060	54%	24
[-5, +5]	0.85%	0.186	58%	24

in Section 2.4.1 above and provide additional support for the argument that classified boards destroy firm value.

A somewhat puzzling aspect of these findings is that classified boards are normally adopted with shareholder approval. In fact, there is not a single case in my sample where a management proposal to classify the board is defeated at the shareholder meeting. This raises the question of why shareholders approve these proposals if classified boards hurt their interests. Jarrell and Poulsen (1987) and Mahoney and Mahoney (1993) both argue that such proposals could be approved because atomistic shareholders are rationally ignorant, that is, they do not have sufficient economic incentives to monitor managerial decisions and so vote along with management. This suggests possible differences in the ownership structure of firms adopting a classified board and those repealing it. I find weak evidence supporting this argument. Mean and median outside block ownership for firms classifying their boards are 10.07% and 6.93%, respectively, compared to 16.62% and 17.96% for firms declassifying their boards. The difference is statistically significant at the 1% level in each case. Thus, firms adopting classified boards have significantly lower outside block ownership than those eliminating staggered board elections, a finding consistent with rationally ignorant atomistic shareholders. However, I find no statistical difference in insider ownership between the two classes of firms, although those adopting a classified board have higher ownership levels: mean and median insider ownership for these firms are 20.72% and 16.44%, respectively, compared to 19.84% and 10.05% for those eliminating classified boards.

2.4.4. Classified boards and operating performance

In addition to the firm value analysis, I examine the effect of classified boards on operating performance as measured by return on assets, sales margin, return on equity, and dividend and total (dividend plus repurchases) payout ratios. I find no significant relation between these variables and classified boards.

3. Classified boards in complex firms

One outcome of the recent trend toward prescribed corporate governance is the effort to identify situations where certain classes of firms benefit from governance provisions that are conventionally regarded as harmful. For instance, Coles, Daniel, and Naveen (2004) find that, in spite of the negative average relation between firm value and board size, larger boards benefit diversified firms and firms with higher leverage. Likewise, Peasnell, Pope, and Young (2003) demonstrate that an insider-dominated board is optimal in some situations, depending on managerial equity ownership. Thus, it is possible that some firms benefit from classified boards, notwithstanding the results presented in Section 2.4 above.

I focus on firms with complex and relatively uncertain operations because such firms are often suggested as suitable candidates for staggered elections. For example, Boeing states in its 2002 proxy filing that "the classified board structure is essential to the proper oversight of a company like ours that has high-technology products and programs that require major investments to be made over long periods of time." Similar claims are made by Gerber Scientific and Weyerhaeuser, among others.

I test this claim by examining the effect of classified boards on firm value among these firms. My primary measure of operational complexity and uncertainty is research and development expenditure. The intuition is that R&D-intensive firms are more likely to have a greater exposure to operational uncertainty because of the firm-specific and high-risk nature of R&D investment. This is the same idea alluded to by Boeing in the above quote. Since more than 60% of the sample firms made no R&D investment during the entire eight-year span of this study, I focus on the subset of firms with positive R&D expenditure during the period. There are 773 such firms, of which 367 (or 47.5%) have classified boards and the remaining elect directors to annual terms.

Column 1 of Table 5 contains the results of the regression for Tobin's q estimated over these firms, similar to those in Table 2 for the full sample. The coefficient on classified board is negative (-0.2432) and statistically significant, just as in the regression estimated for the full sample. Average Tobin's q among R&D-intensive firms is 1.87; thus, the coefficient implies a 13% depression in Tobin's q for R&D-intensive firms with classified boards compared to those that elect directors annually. Thus, rather than benefit from classified boards, R&D-intensive firms also are hurt by electing directors to staggered terms.

The choice of R&D expenditure as a measure of firm complexity is admittedly subjective. Hence, I examine the robustness of the above result to alternative measures of complexity by defining three additional proxies. The first is asset characteristics, which I measure by the ratio of tangible to total assets. Firms with lower ratios are presumed to face a greater amount of operational uncertainty. I define complex firms on this measure as those with ratios below the median value of 24.75%.

The second measure is sales growth. Here, the logic is that rapid sales growth is more likely when there is a consistent program of new product development and process improvement. Since these increase operational uncertainty, it is reasonable to presume that high sales growth firms are exposed to a higher level of uncertainty and are therefore more likely to benefit from any stability provided by classified boards. I sort sample firms into

Classified boards and firm value among complex firms

The dependent variable in each regression is Tobin's q, calculated as the ratio of the sum of the market value of common equity, book value of preferred equity, and book value of long-term debt to the book value of assets. Classified board equals one when directors are elected to staggered terms, zero otherwise. Board size is the number of directors. Board composition is the fraction of directors who are outsiders with no business or personal relationship with the firm or any of its employee-directors. Insider ownership I, II, and III measure managerial ownership less than 5%, between 5% and 25%, and greater than 25%, respectively. Block ownership is the proportion of outstanding shares owned by unaffiliated holders of 5% or more. Unitary leadership equals one when the CEO also serves as board chairman, zero otherwise. Average directorships is the average number of other corporate boards on which directors serve. Average director age is the average age of all directors in 1995. Independent nominating equals one when the firm has a nominating committee of which the CEO is not a member, zero otherwise. Delaware incorporation equals one if the firm is incorporated in the state of Delaware, zero otherwise. Poison pill equals one if the firm has a poison pill, zero otherwise. CAPEX/Assets is the ratio of capital expenditures (Compustat annual data item #128) to total assets. Leverage is the ratio of long-term debt to total assets. Firm size is the natural logarithm of total assets in 1994 constant dollars. Operating profitability is the ratio of operating income before depreciation to total assets at the beginning of the year. The regression in Column 1 is estimated over firms with nonzero R&D expenditures. Column 2 is for firms with a ratio of tangible to total assets lower than the sample median. Columns 3 and 4 are for firms with average annual sales growth and total assets, respectively, greater than the sample median. Each regression includes two-digit primary SIC code dummies. Standard errors are shown in parentheses under parameter estimates. Levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

Variable	1	2	3	4
	R&D intensive	Less tangible assets	High sales growth	Large size
Classified board	-0.2432**	-0.1612*	-0.1906**	-0.0836*
Board size	(0.111) -0.0604^{**}	-0.0374**	(0.089) -0.0360^{**}	(0.051) -0.0116
Board composition	(0.027) 0.3276	(0.017) 0.2376	(0.016) 0.2379	(0.008) 0.1145
Insider ownership I	(0.295) 0.0647	(0.240) 0.0435	(0.236) 0.0173	(0.150) 0.0367*
Insider ownership II	(0.054) -0.0230**	(0.052) -0.0202^{***}	(0.045) -0.0115	(0.021) -0.0003
Insider ownership III	(0.009) -0.0078	$(0.008) \\ -0.0081^{**}$	(0.008) -0.0103***	(0.005) -0.0030
Block ownership	(0.006) -0.0132***	(0.004) -0.0103**	(0.004) -0.0121***	(0.003) -0.0026
Unitary leadership	(0.005) -0.0193	(0.004) -0.1055	(0.004) -0.1133	(0.002) -0.0367
Average directorships	(0.114) 0.0704	(0.095) 0.1535	(0.093) 0.0887	(0.057) -0.0500
Average director age	(0.143)	(0.134) 0.0344***	(0.127)	(0.056)
Average director age	(0.012)	(0.009)	-0.0282 (0.009)	(0.007)
Independent nominating committee	-0.1908 (0.130)	(0.111)	-0.1362 (0.107)	-0.0348 (0.053)
Delaware incorporation	0.1302 (0.107)	0.0728 (0.092)	0.2149*** (0.089)	0.0013 (0.052)
Poison pill	-0.1137 (0.124)	-0.0387 (0.102)	-0.0614 (0.096)	-0.0044 (0.058)
CAPEX/Assets	4.0560***	1.0067*	0.8702*	-2.4855^{***}
Leverage	-2.3012***	-1.2229***	-1.8479***	-0.7040***

Variable	1	2	3	4
	R&D intensive	Less tangible assets	High sales growth	Large size
	(0.388)	(0.308)	(0.298)	(0.188)
Firm size	0.1163***	0.0490	0.0755***	0.1124***
	(0.046)	(0.036)	(0.035)	(0.026)
Operating profitability	-0.5910	-0.1526	-0.0109	10.233***
	(0.395)	(0.351)	(0.345)	(0.371)
Adjusted R-square	0.253	0.317	0.418	0.699
Sample size	766	917	900	900

Table 5 (continued)

two groups based on realized average annual sales growth between 1995 and 2002. Firms with average annual sales growth higher than the median of 7.07% are classified as complex firms on this measure.

My final proxy for operational complexity is firm size. This is based on the premise that larger firms are inherently more complex than smaller ones. Using this measure, I classify firms with total assets above the sample median as complex firms and those with values below the median as non-complex.

I then estimate regressions similar to those in Table 2 for complex firms as proxied by asset characteristics, sales growth, and firm size. Results are presented in Columns 2-4 of Table 5. Again, regardless of the measure of complexity, I find no evidence that classified boards are advantageous among complex firms. Rather, I find results that are similar to those reported in Table 2: a negative and significant relation between Tobin's q and classified boards. These results are inconsistent with the view espoused by adherents of classified boards. In contrast, they suggest that, even among firms subject to a higher degree of complexity and operational uncertainty, classified boards are associated with a significant reduction in firm value.

4. Classified boards, institutional stability, and long-term investment

Since directors serving staggered terms do not face annual reelection, classified boards guarantee them longer terms in office. Proponents often argue that this ensures that a majority of directors serving at any given time have prior experience as directors of the firm, and that this enhances board stability. Also, by guaranteeing longer terms, classified boards might shield directors from the effect of short-term fluctuations in firm fortunes, thereby allowing them to focus on long-term strategic issues.

I evaluate these hypotheses in this section. First, I analyze the effect of staggered elections on board stability by examining long-term director turnover. If staggered elections enhance board continuity, then firms with classified boards should have more stable boards with lower director turnover, other things being equal. Second, I examine the effect of classified boards on capital investment, focusing on R&D and long-term physical assets. My choice of R&D is informed by its long gestation period and the relatively higher level of uncertainty associated with its expected payoff. Thus, if staggered elections afford directors the opportunity of a long-term perspective, then firms with classified boards

should invest more in R&D, other things being equal. I analyze investment in physical assets for robustness purposes.

4.1. Classified boards and board stability

I measure board stability using director turnover rate between 1995 and 2002, assessing it on four related dimensions: all directors, outside directors, independent directors, and employee directors. I calculate turnover rates by comparing each firm's slate of directors in 1995 with the firm's directors as reported in its 2002 proxy filing.

The turnover rate for firms that elect directors annually is 39.5%, compared to 41.1% for firms with classified boards. The difference is statistically insignificant. Similarly, the turnover rate for employee directors on non-classified boards is 39.4% versus 41.7% for classified boards. Again, the difference is not statistically significant. Moreover, I find no significant differences between classified and non-classified boards in terms of turnover rates for outside and independent directors: 39.9% and 40.5%, respectively, for non-classified boards, compared to 40.4% and 40.5% for classified boards. In sum, the univariate results do not support the claim that staggered elections enhance board stability.

Of course, it is likely that board turnover is affected by factors other than the manner in which directors are elected. For instance, Crutchley, Garner, and Marshall (2002) show that directors are more likely to leave following poor firm performance. This suggests a negative relation between board turnover and performance. Similarly, basic intuition and anecdotal evidence suggest director reshuffling following CEO turnover as the new CEO brings fresh faces on the board. In addition, the firm's ownership structure can affect the balance of power among the CEO, other directors, and institutional or significant shareholders, thereby influencing turnover rates by affecting the likelihood of individual directors being renominated to the board. Yermack (2004) also shows that turnover is affected by director age and gender. Consequently, I estimate multiple regressions controlling for these and other factors including board size, board composition, leadership structure, leverage, firm size, other directorships held, board tenure, the occurrence of a proxy fight, and industry as measured by two-digit SIC dummy variables.

The results, shown in Table 6, are inconsistent with staggered elections promoting board stability. After controlling for other factors, the classified board variable is insignificant in the regression for all directors. Neither is it significantly related to turnover among outside or independent directors. Thus, electing directors to staggered terms does not enhance board independence through the retention of outside directors.⁷ Only in the regression for employee directors do classified boards appear to matter, being negative and significant at the 10% level. Note, however, that this is consistent with staggered boards simply entrenching top management. The results presented later in Section 5.1 on the role of classified boards in CEO turnover provide support for this interpretation. In all, I conclude that my results do not confirm the presumed ability of staggered elections to facilitate board stability by reducing director turnover.

⁷Admittedly, these regressions focus on director turnover rather than board actions. Board actions are an important measure of the degree of independence of directors. However, it is difficult to collect meaningful data on board actions. Later, I show that directors serving on classified boards demonstrate a lower degree of independence in at least two significant components of board duties, that is, firing the CEO as and when necessary and providing appropriate compensation incentives.

Classified boards and board stability

The dependent variable in these regressions is director turnover rate between 1995 and 2002, calculated by comparing each firm's slate of directors in 1995 with the firm's directors as reported in its 2002 proxy filing. The first column is for all directors, while Columns 2-4 are for outside, independent, and employee directors, respectively. Classified board equals one when directors are elected to staggered terms, zero otherwise. Board size is the number of directors. Board composition is the fraction of directors who are outsiders with no business or personal relationship with the firm or any of its employee-directors. Insider ownership and block ownership are the proportion of outstanding shares owned by officers and directors and by unaffiliated holders of 5% or more. Unitary leadership equals one when the CEO also serves as board chairman, zero otherwise. Same CEO equals one when the CEO remains unchanged over 1995–2002. Independent nominating equals one when the firm has a nominating committee of which the CEO is not a member, zero otherwise. Average director age is the average age of directors in 1995. Board tenure is average director tenure in 1995. Percent female directors is the fraction of directors who are female. Average directorships is the average number of other corporate boards on which directors serve. Delaware incorporation equals one if the firm is incorporated in the state of Delaware, zero otherwise. Poison pill equals one if the firm has a poison pill, zero otherwise. Proxy fight equals one if the firm was the target of a proxy fight between 1995 and 2002, zero otherwise. Leverage is the ratio of long-term debt to total assets. Firm size is the natural logarithm of total assets in 1994 constant dollars. Operating performance is the ratio of operating income before depreciation to total assets at the beginning of the year. Each regression includes two-digit primary SIC code dummies. Standard errors are shown in parentheses under parameter estimates, while levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

	1	2	3	4
	Full Board	Outsiders	Independents	Employees
Classified board	-0.0133	-0.0168	-0.0187	0.0206*
Board size	(0.010) 0.0089^{***}	(0.013) 0.0063**	(0.015) 0.0050*	(0.012) 0.0157***
Board composition	(0.002) -0.0481*	(0.003) -0.0413	(0.003) -0.0129	(0.002) -0.1251^{***}
Insider ownership	(0.027) -0.0006^{**}	(0.036) -0.0005 (0.001)	(0.041) -0.0004 (0.001)	(0.032) -0.0004 (0.001)
Block ownership	(0.000) -0.0007 (0.001)	(0.001) -0.0009 (0.001)	(0.001) -0.0006 (0.001)	(0.001) -0.0001 (0.001)
Unitary leadership	(0.001) -0.0001 (0.011)	0.0076	0.0025	(0.001) -0.0052 (0.012)
Same CEO	-0.2612^{***}	-0.1541^{***}	-0.1528^{***}	-0.5824^{***}
Independent nominating committee	0.0207*	0.0292*	0.0251	0.012)
Average director age	0.0085***	0.0098***	0.0115***	0.0038***
Board tenure	-0.0061^{***}	-0.0044^{***}	-0.0044^{**}	-0.0065^{***}
Percent female directors	0.0705	0.1389	0.1165	0.0393
Average directorships	-0.0172	-0.0041	-0.0043	-0.0058
Delaware incorporation	-0.0060	0.0014	-0.0006	-0.0286^{**}
Poison pill	0.0157	0.0122	0.0020	0.012)
Proxy fight	(0.011) 0.0432^{*} (0.023)	0.0404 (0.030)	0.0201 (0.033)	0.0654**

	1	2	3	4
	Full Board	Outsiders	Independents	Employees
Leverage	0.0180	0.0411	0.0395	-0.0324
-	(0.028)	(0.037)	(0.041)	(0.033)
Firm size	-0.0005	-0.0071	-0.0034	0.0087*
	(0.004)	(0.005)	(0.006)	(0.005)
Operating performance	-0.0872^{**}	-0.0820	-0.1207^{**}	-0.0991^{**}
	(0.044)	(0.057)	(0.063)	(0.051)
Adjusted R-square	0.370	0.161	0.150	0.630
Sample size	1,852	1,843	1,821	1,852

Table 6 (continued)

4.2. Classified boards and long-term investment

I estimate three regressions relating classified boards to long-term investments. First, since several of the R&D observations are zero, I utilize Tobit, rather than OLS, for a full-sample R&D regression. Second, I estimate an OLS regression over firms with nonzero R&D spending. The third regression focuses on investment in long-term physical assets, which I measure as capital expenditures on new property, plant and equipment (PPE), normalized by net PPE at the beginning of the year. Each regression includes two-digit primary SIC code dummies to control for industry effects.

The coefficient on classified boards is negative and significant in both R&D regressions. The coefficient estimated over the full sample indicates that classified boards are associated with a 1.52 percentage point reduction in R&D spending. Since mean and median R&D expenditures are 3.2% and 0.00% of total assets, this is an economically significant reduction in firm-specific long-term investment. Similarly, the PPE regression shows that classified boards depress investment in long-term physical assets by 1.35 percentage points, although it is only marginally significant, with a *p*-value of 0.12. Nevertheless, compared to mean and median capital investment rates of 9.6% and 6.3%, respectively, a reduction of 1.35 percentage points is economically nontrivial.

These results are difficult to reconcile with the notion that classified boards enhance the firm's ability to focus on long-term strategy. Neither are they consistent with the idea that these boards are beneficial to shareholders. McConnell and Muscarella (1985) report positive abnormal returns for increases in corporate capital budgets. Chan, Martin, and Kensinger (1990) show that similar positive announcement returns accompany increases in R&D spending. Likewise, Eberhart, Maxwell, and Siddique (2004) report significantly positive long-term abnormal operating performance following R&D increases. These studies suggest that shareholders typically prefer firms to undertake more long-term investment. Of course, it is possible that firms with classified boards cut back on capital spending and R&D when it is optimal to do so. However, the significantly lower firm value associated with classified boards in Section 2.4 undermines such interpretation.

The findings in Sections 3 and 4 weaken some of the strongest arguments in support of staggered elections. It is generally accepted and empirically shown that classified boards have strong antitakeover effects. Nevertheless, many investors tolerate them because they are thought to promote stability, which in turn enhances firm value. My results suggest

that this is not the case. If, as is shown here, classified boards do not promote stability and are associated with significant reductions in value creation even among firms that are a priori more likely to benefit from institutional stability, then it is obvious that justifying them on this basis is problematic. Perhaps we need to look more closely at the incentives of corporate management in order to understand the prevalence of this governance practice.

A natural explanation is that classified boards are adopted because they help entrench management. However, there is little empirical testing of this conventional wisdom beyond studies that examine the role of staggered boards in takeover contests. Hence, I propose a series of tests designed to provide a broad-based evaluation of how classified boards entrench directors and top management. These tests focus on the role of staggered elections in executive turnover, managerial compensation incentives, proxy contests, and shareholder proposals.

5. Classified boards and managerial entrenchment

5.1. Executive turnover

An important measure of the degree of managerial entrenchment is the extent to which executive turnover is involuntary. By definition, non-entrenched managers are exposed to board and/or market-imposed discipline; thus, they are more susceptible to forced departure. Entrenched managers, in contrast, are less likely to leave involuntarily since they are less vulnerable to internal and external pressures. Goyal and Park (2002) measure managerial entrenchment using the combination of chief executive and chairman duties. They report that vesting both positions in the same individual significantly reduces the probability of forced CEO turnover. In this section, I provide insight into the entrenchment effects of staggered elections by examining the impact of classified boards on the incidence and performance sensitivity of involuntary CEO turnover.

Using proxy statements together with newspaper and newswire reports in Factiva, I follow each CEO from January 1995 to December 2002 to identify those replaced during this period and find 1,483 CEO replacements. Of these, 425 are due to mergers, acquisitions, and buyouts; 57 are due to death or health problems; and 43 are due to firm disappearances related to bankruptcies, delistings, and deregistrations. I exclude these 525 cases from the sample. I then read media reports and company press releases around each of the remaining replacements to classify them as voluntary or involuntary. Involuntary turnovers are those reported as due to dismissals or firings by the board, disagreements with the board, a need for new leadership, and similar circumstances that suggest the turnover is forced. When media reports are not specific about the nature of the departure, I also classify turnovers as forced if the CEO is under 60 and leaves within one month of the turnover announcement for no other job or a job of lower status. This yields an involuntary turnover sample of 219 chief executives. The remaining 739 turnovers are classified as voluntary, giving a 23% forced turnover rate, which is similar to the 23.4% reported by Huson, Parrino, and Starks (2001) for the 1989–1994 period. Of the 219 forced turnovers, 84 occur at firms with classified boards, while 135 are at firms with nonclassified boards. This translates into turnover rates of 16.4% for classified boards and 30.3% for non-classified boards, with the difference being statistically significant at the 1% level.

Previous research shows that other factors affect the likelihood of forced turnover. Coughlan and Schmidt (1985) and Warner, Watts, and Wruck (1988) report a significant negative relation between the likelihood of turnover and firm performance as measured by market-adjusted returns, while Denis, Denis, and Sarin (1997) show that the probability of turnover is negatively related to managerial ownership and positively related to the presence of an unaffiliated blockholder. In addition, Yermack (1996) reports a negative association between board size and forced turnover. Similarly, Goyal and Park (2002) show that the probability of turnover is significantly lower when the CEO also serves as board chairman, while Weisbach (1988) reports a positive effect for board composition as measured by the dominance of outside directors. Thus, it is crucial to control for these factors in order to isolate the effect of classified boards.

For this purpose, I estimate cross-sectional time-series logistic models over 1995–2002, with corrections for firm-level clustered errors. The dependent variable is a dummy variable coded as one for firm-years with CEO turnovers and zero for firm-years with no turnovers. I measure performance using market-adjusted stock returns, where the market is defined as the CRSP equal-weighted portfolio of NYSE/Amex/Nasdaq stocks. I calculate market-adjusted returns annually over 1995–2002, relative to the turnover announcement date for terminated CEOs and as of each year-end for surviving CEOs. Managerial ownership, outside block ownership, board size, and leadership structure are defined as in Section 2. Following Weisbach (1988), I control for the dominance of outside directors using an indicator variable that equals one when a majority of directors are outsiders.⁸ I also control for Delaware incorporation, independent nominating committees, and poison pills, as well as CEO age and the intensity of board activity as measured by the number of board meetings.

The first column of Table 7 presents the results of the above regression, reporting only coefficients of interest to conserve space. As the table shows, the classified board variable is negative and significant at the 1% level; thus, electing directors to staggered terms significantly reduces the probability of forced CEO turnover. In terms of economic significance, the odds ratio for classified boards is 0.599, which implies that a classified board reduces the odds in favor of forced turnover by about 40%. In comparison, the odds ratio for market-adjusted return reduces the odds of forced turnover by 20%. Similarly, the odds ratio for managerial ownership is 0.983, that is, a ten percentage point increase in managerial ownership reduces the odds of forced turnover by 17%. Thus, it takes an annual performance improvement of 20 percentage points or an increase in managerial ownership of approximately 24 percentage points to achieve the same reduction in the odds of forced turnover as simply having a classified board.

Next, I examine the impact of classified boards on the performance sensitivity of CEO turnover by adding an interaction term between market-adjusted return and the classified board dummy variable. Again, to isolate the effect of classified boards, I control for the potential effect of other variables on the performance sensitivity of turnover by including interaction terms between market-adjusted return and board size, leadership structure, managerial and outside block ownership, the dominance of outside directors, the

⁸The majority outside director or outsider-dominated board dummy variable equals one when more than 50% of directors are outsiders, zero otherwise. Results are invariant to alternative definitions that use 60% and 75% as the cutoff point.

Classified boards and forced CEO turnover

This table summarizes the results of logistic regressions relating the occurrence of forced CEO turnover to classified boards and other control variables. Forced turnovers are those reported as due to dismissals or firings by the board, disagreements with the board, a need for new leadership, and/or similar circumstances that suggest the turnover is involuntary. Classified board equals one when directors are elected to staggered terms, zero otherwise. Excess return is the annual stock return less the same-period return on the CRSP equally weighted portfolio of NYSE/Amex/Nasdaq stocks, calculated each December 31 for firms with no turnover and each pre-turnover anniversary for terminated CEOs. Majority outsiders equals one when a majority of directors are outsiders, zero otherwise. The regression in Column 1 also includes board size (the number of directors), insider ownership (the percentage of outstanding shares owned by all officers and directors), outside block ownership (the proportion of shares owned by unaffiliated holders of 5% or more), leadership structure (equals one if the CEO is board chairman, zero otherwise), independent nominating committee (equals one when the firm has a nominating committee of which the CEO is not a member, zero otherwise), Delaware incorporation (equals one if the firm is incorporated in the state of Delaware, zero otherwise), poison pill (equals one if the firm has a poison pill, zero otherwise), CEO age, and the number of board meetings. The regressions in Columns 2 and 3 include interaction terms between each of these variables (except CEO age and board meetings) and excess return. Standard errors are shown in parentheses under parameter estimates, while levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively. Only variables of interest are reported to conserve space.

	1	2	3
Excess return	-1.9814***	-1.9347***	-1.6001**
	(0.182)	(0.639)	(0.665)
Classified board	-0.5111***	_	`
	(0.167)		
Excess return \times classified board		0.7487***	
		(0.293)	
Excess return \times majority outsiders	_	-0.5001*	-0.7447^{**}
		(0.308)	(0.347)
Excess return \times majority outsiders \times classified board	_		0.6814**
			(0.345)
Likelihood ratio χ^2	196.783***	148.097***	146.321***
<i>x</i> ,	(0.01)	(0.01)	(0.01)
Sample size (Forced turnover)	813	813	813
• • • •	(203)	(203)	(203)

combination of chairman and CEO positions, poison pills, Delaware incorporation, and independent nominating committees.

The second column of Table 7 presents the results of this regression. The interaction term between performance and classified boards is positive and significant at the 1% level, indicating that a classified board significantly reduces the sensitivity of turnover to firm performance. Its odds ratio is 1.007, which, taken together with the odds ratio of 0.981 for market-adjusted return, implies that a ten percentage point decline in relative return increases the odds of forced turnover by 19% for firms without classified boards, compared to only 12% for firms with classified boards. In terms of marginal probabilities, a one standard deviation decline from the mean of market-adjusted return while holding other variables at their sample averages increases the probability of forced turnover by 13.1 percentage points at firms without classified boards but by only 8.7 percentage points at firms with classified boards.

Finally, I examine the impact of staggered boards on the relation between chief executive turnover and the dominance of outside directors to provide evidence on how classified boards affect director effectiveness. As previously reported, Weisbach (1988) shows that turnover is more sensitive to firm performance at firms with a majority of outside directors. I test the effect of staggered elections on this relation by running a regression that includes an interaction term between market-adjusted return and the classified board and majority outside director dummy variables in addition to the interaction term between market-adjusted return and the indicator variable for outsider-dominated boards. Column 3 of Table 7 presents the results of this regression.

Consistent with Weisbach (1988), the interaction term between market-adjusted return and outsider-dominated board is negative and statistically significant. Thus, CEOs are more likely to lose their jobs for poor performance at firms with outsider-dominated boards. Note, however, that this variable tells a complete story only for firms without classified boards. For firms with classified boards, the relevant number is the sum of the coefficients on this variable and on the interaction term between market-adjusted return and the dummy variables for classified boards and outsider-dominated boards. As Table 7 shows, the additional term is positive and significant at the 5% level. Furthermore, the sum of the coefficients on these two variables is statistically indistinguishable from zero. Thus, for firms that elect directors to staggered terms, having an outsider-dominated board does not affect the sensitivity of CEO turnover to firm performance.

Results for variables not reported in Table 7 are consistent with prior studies on executive turnover. As in Denis, Denis, and Sarin (1997), I find that higher managerial ownership significantly reduces the likelihood and performance sensitivity of forced turnover, while higher outside block ownership has the opposite effect. I also confirm the finding of Goyal and Park (2002) that vesting the positions of CEO and chairman of the board in the same individual significantly reduces the incidence of CEO turnover and its sensitivity to firm performance. In contrast, Delaware incorporation increases the likelihood and performance sensitivity of forced turnover. However, I do not find any significant effect for poison pills, independent nominating committees, and board size.

5.2. CEO compensation incentives

In addition to hiring and firing the CEO, an important board function is to provide appropriate managerial incentives through well-designed compensation contracts. Here, I study how staggered elections affect the board's effectiveness in performing this function by analyzing the impact of classified boards on the sensitivity of CEO compensation to firm performance. Jensen and Murphy (1990), Yermack (1996), and several other papers define pay-performance sensitivity as the dollar change in CEO compensation per \$1,000 change in shareholder wealth, estimated by regressing annual changes in CEO compensation on annual changes in shareholder wealth. Following these authors, I calculate the change in shareholder wealth for each year as the product of the percentage return to shareholders during the year and the firm's market value at the end of the preceding year, both as reported in CRSP and adjusted for inflation.

I define two measures of CEO compensation. The first is salary plus bonus. The second includes salary, bonus, the value of stock options and restricted stock granted during the year, long-term incentive payouts, and other annual compensation amounts. Both are based on Execucomp data and are adjusted for inflation.

I then estimate regressions of the first difference of CEO compensation on the change in shareholder wealth for each firm-year over 1995–2002. To capture the effect of classified

boards on pay-performance sensitivity, I include an interaction term between classified boards and the change in shareholder wealth. Cichello (2005) and Aggarwal and Samwick (1999) show that pay-performance sensitivity is affected by firm size and firm risk as measured by the cumulative density functions of market capitalization and the standard deviation of returns, respectively. I control for these findings by including interaction terms between the change in shareholder wealth and firm risk (as measured by the cumulative density function of the standard deviation of returns) and firm size (as measured by the cumulative density function of market capitalization). I also control for the potential effect of other governance factors by including interaction terms between the change in shareholder wealth and each of managerial ownership, outside block ownership, the proportion of independent directors, board size, poison pills, independent nominating committees, and Delaware incorporation. Results are presented in Table 8. Panel A presents the results for the change in salary plus bonus, while Panel B presents the results for the change in total flow compensation.

Consistent with prior studies, the first column of each panel of Table 8 shows a positive and significant relation between the change in CEO compensation and the change in shareholder wealth. The second columns include the interaction term between classified board and the change in shareholder wealth as well as controls for other governance factors and firm size and return volatility. As the table shows, the interaction term is negative and significant at the 5% level, indicating that firms with classified boards provide significantly lower compensation incentives for their chief executives. Since Sections 2.4 and 5.1 show that these firms underperform firms that elect directors to annual terms and are less likely to fire their CEOs for poor performance, this suggests that classified boards benefit CEOs at the expense of shareholders by shielding them and their compensation packages from the effect of poor firm performance.

5.3. Proxy contests and shareholder proposals

Proxy contests and shareholder proposals are important avenues for shareholders attempting to influence management. While proxy contests are hostile and can result in forceful removal of directors, proposals are typically precatory in the sense that approval by shareholders does not obligate management to implement them. Both provide an opportunity to study whether and how staggered elections insulate directors.

I search Factiva for proxy contest information on each sample firm from 1995 to 2003. There are 102 contests, of which 43 and 59 occur at firms with classified and non-classified boards, respectively. I then estimate logistic regressions similar to those in Section 5.1 above, controlling for other determinants of the probability of a proxy contest as in Faleye (2004). I find that classified boards significantly reduce the incidence and performance sensitivity of proxy contests, with *p*-values lower than 0.01.

I collect data on shareholder proposals from The Corporate Library web site. The data cover 1,813 proposals at 251 firms between 2000 and 2004. Classified boards receive 926 proposals, while non-classified boards receive 887. I find that 31% of proposals at firms with classified boards are majority-approved by shareholders, compared to 8% for firms without classified boards. Nevertheless, non-classified boards implement 46% of approved proposals, compared to only 24% by classified boards. Moreover, in nearly 25% of implemented proposals, classified boards act only after such proposals have gained

Classified boards and CEO compensation incentives

 Δ Cash compensation is the first difference of the sum of salary and bonus in thousands of dollars. Δ Total compensation is the first difference of the sum of salary, bonus, the value of stock options and restricted stock granted during the year, long-term incentive payouts, and other annual payments. AShareholder wealth is the product of the percentage return to shareholders during the year and the firm's market value at the end of the preceding year, in millions of dollars. Classified board equals one when directors are elected to staggered terms, zero otherwise. Board size is the number of directors. Board composition is the fraction of directors who are outsiders with no business or personal relationship with the firm or any of its employee-directors. Insider ownership and block ownership are the proportion of outstanding shares owned by all officers and directors, and unaffiliated holders of 5% or more, respectively. Poison pill equals one if the firm has a poison pill, zero otherwise. Independent nominating equals one when the firm has a nominating committee of which the CEO is not a member, zero otherwise. Delaware incorporation equals one if the firm is incorporated in the state of Delaware, zero otherwise. Risk percentile is the cumulative density function of the standard deviation of annual stock returns over the preceding five years. Firm size percentile is the cumulative density function of market capitalization. Each regression also includes year and two-digit primary SIC code dummy variables. All dollar figures are inflationadjusted. Standard errors are shown in parentheses under parameter estimates, while levels of significance are indicated by ***, **, and * for 1%, 5%, and 10%, respectively.

	1	2	1	2
	A: $\Delta Cash$	compensation	B: $\Delta Total$	Compensation
Δ Shareholder wealth	0.0363***	0.6462***	0.1059***	1.1426***
	(0.002)	(0.047)	(0.012)	(0.252)
Δ Shareholder wealth × classified board		-0.0108^{**}		-0.0548^{**}
		(0.004)		(0.024)
Δ Shareholder wealth × insider ownership	—	0.0001	—	0.0020*
		(0.001)		(0.001)
Δ Shareholder wealth × block ownership	—	0.0009^{***}		0.0016
		(0.001)		(0.002)
Δ Shareholder wealth × board size		0.0036***		0.0107***
		(0.001)		(0.004)
Δ Shareholder wealth × board composition		-0.0015		-0.1538^{**}
		(0.014)	(0.073)	
Δ Shareholder wealth × poison pill		0.0001	—	0.1208***
		(0.005)		(0.026)
Δ Shareholder wealth × independent nominating		0.0084^{*}		0.0503**
		(0.0.004)		(0.024)
Δ Shareholder wealth × delaware incorporation		0.0003		-0.0037
		(0.005)		(0.025)
Δ Shareholder wealth × risk percentile		-0.1634^{***}		-0.5646^{**}
		(0.050)		(0.248)
Δ Shareholder wealth \times firm size percentile		-0.5081^{***}		-0.6186^{**}
		(0.056)		(0.294)
Adjusted R-square	0.197	0.236	0.117	0.131
Sample size	5,822	5,774	5,667	5,621

majority approval in at least three consecutive annual meetings. In contrast, non-classified boards act after only one approval in all cases.

6. Summary and conclusion

A recent wave of shareholder activism focuses on declassifying corporate boards and instituting annual election of all directors. According to the IRRC, 51 shareholder proposals requesting board declassification were filed in 2002 while 56 were filed during the 2003 proxy season. Underlying this activism is the basic notion that classified boards entrench management and reduce the effectiveness of directors, thereby hurting firm value. In response, management often defends staggered boards as promoting board stability, director independence, and a culture of effective long-term strategic planning.

This paper studies several related issues with a view to enriching the discourse on classified boards. Using a large sample, I show that classified boards are associated with a significant reduction in firm value and that this relation holds for a class of firms that are ex ante more likely to benefit from institutional stability. I then proceed to examine how classified boards entrench management by focusing on CEO turnover, executive compensation, proxy contests, and shareholder proposals. I find that classified boards significantly insulate top management from market discipline.

These results are consistent with the argument that classified boards benefit management at the expense of shareholders. They also suggest that the recent wave of shareholder outcry against classified boards is not misplaced. Rather, it appears that a movement toward greater accountability demands the destaggering of corporate boards.

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