



# The costs of entrenched boards<sup>☆</sup>

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## Abstract

This paper investigates empirically how the value of publicly traded firms is affected by arrangements that protect management from removal. Staggered boards, which a majority of U.S. public companies have, substantially insulate boards from removal in either a hostile takeover or a proxy contest. We find that staggered boards are associated with an economically meaningful reduction in firm value (as measured by Tobin's Q). We also provide suggestive evidence that staggered boards bring about, and not merely reflect, a reduced firm value. Finally, we show that the correlation with reduced firm value is stronger for staggered boards that are established in the corporate charter (which shareholders cannot amend) than for staggered boards established in the company's bylaws (which shareholders can amend).

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## 1. Introduction

Whether it is desirable to protect the boards of publicly traded companies from removal by shareholders has long been the subject of much debate. Does the threat of removal benefit shareholders by discouraging incumbents from shirking, engaging in empire-building, extracting private benefits, and rejecting attractive acquisition offers? Does the threat of removal reduce shareholder value by introducing a short-term bias into management decisions and by weakening the bargaining position of incumbents in negotiated sales? Such questions have long been debated by corporate governance researchers and practitioners.

In this paper, we aim to shed light on these questions by studying staggered boards – the key arrangement that protects incumbents from removal in U.S. publicly traded companies. A staggered board, which a majority of U.S. public companies have, prevents shareholders from replacing a majority of the board of directors without the passage of at least two annual elections. As a result, staggered boards make it harder to gain control of a company in either a stand-alone proxy contest or a hostile takeover.

Staggered boards have encountered growing resistance from institutional investors during the past decade. Since the early 1990s, shareholders of existing public companies have been reluctant to approve charter amendments that would establish a staggered board (Investor Responsibility Research Center (IRRC), 1995, 1998, 2000, 2002; Klausner, 2003). Furthermore, shareholders have been voting increasingly in favor of precatory (advisory) resolutions that recommend dismantling existing staggered boards (Bebchuk, 2003). Staggered boards, however, continue to have many defenders (e.g., Koppes et al., 1999), and boards commonly choose not to follow majority-passed shareholder resolutions calling for dismantling a staggered board; 90 out of the 131 such resolutions that passed during the period 1997–2003 were not implemented by the fall of 2004 (Bebchuk, 2005).

We study the association between staggered boards and firm value, as measured by Tobin's  $Q$ , during the period 1995–2002. By 1995, the legal rules that provide staggered boards with their protective powers were firmly in place. We find that, controlling for firm characteristics including other governance provisions, staggered boards are associated with a reduced firm value. The association between staggered boards and firm value is not only statistically significant, but also economically meaningful.

As is often the case with respect to identified correlations between governance arrangements and firm value, simultaneity issues complicate the interpretation of our findings. One possible interpretation is that staggered boards lead to a reduction in firm value. However, there are two other interpretations that do not involve such a causal link but rather a selection effect. First, the association might be produced by the selection of staggered boards by low-value firms that seek to protect themselves from a takeover. Second, the association might be produced by the selection of such arrangements by managements with characteristics that also lead to lower value; for example, self-serving incumbents could tend both to seek protection from removal and produce lower firm value. These two interpretations hardly imply a favorable view of staggered boards. However, to the extent that they account for the

association between staggered boards and firm value, this association cannot serve as evidence that staggered boards harm shareholders.

While fully addressing the simultaneity issue is difficult, we explore it and provide some suggestive evidence that staggered boards at least partly cause, and not merely reflect, a lower firm value. We use the fact that, since the beginning of the 1990s, shareholders of existing public companies have generally been unwilling to approve charter amendments that establish a staggered board. As a result, whether pre-1990 firms had a staggered board at the end of the period we examine depends substantially on whether they already had a staggered board in 1990. Focusing on firms that went public prior to 1990 (a majority of the firms in our database) and controlling for 1990 firm value, we find a negative correlation between firms' market values during 1995 to 2002 and whether they had a staggered board in 1990. This correlation is consistent with staggered boards having a negative effect on firm value.

In addition to identifying the association between staggered boards and market values, our research provides an insight into the features that drive the correlation between low firm value and a broad index of management-favoring provisions followed by the IRRC. In an important recent study, (Gompers et al., 2003), Gompers, Ishii, and Metrick construct an index based on 24 management-favoring provisions followed by the IRRC. This study finds a negative correlation between the number of such provisions and firm value, but does not identify which provisions are especially responsible for the identified correlation. We extend this work by finding that, controlling for other governance provisions, staggered boards have a strong effect on market value and that this effect is several times larger than the average effect of other provisions in the constructed index. Thus, staggered boards are an important driver of the identified correlation between firm value and a broad governance index.

Finally, we find some evidence that the extent to which staggered boards are associated with negative firm value depends on whether they are established in the corporate charter or in the company bylaws. While most staggered boards are established in the firm's charter, which shareholders cannot amend, about 10% of staggered boards are established in the firm's bylaws. Because shareholders may amend their company's bylaws, bylaws-based staggered boards do not provide boards the same protection from removal by determined shareholders that charter-based staggered boards confer. Separating between charter-based staggered boards and bylaws-based staggered boards, we find evidence that the latter are not negatively correlated with firm value in the same way as the former.

Our analysis is organized as follows. Section 2 discusses the legal and institutional background, the questions that we seek to examine, and the related literature. Section 3 describes our data, and Section 4 describes our results. Section 5 concludes.

## **2. Background, motivation, and prior work**

### *2.1. The key role of staggered boards in entrenching incumbents*

U.S. companies can have either a unitary board or a staggered board. In firms with a unitary board, all directors stand for election each year. In firms with a

staggered board, directors are grouped into classes, with one class of directors standing for election at each annual meeting of shareholders. Typically, a staggered board has three classes of directors, which in most states of incorporation is the largest number of classes permitted by state corporate law.

There are two ways in which boards may be removed. One is a stand-alone proxy fight initiated by a rival team that seeks to replace the incumbents but continue to run the firm as a stand-alone entity. Alternatively, a board may be removed as a result of a hostile takeover by an outside buyer that purchases a controlling block. Either way, the ease with which directors can be removed greatly depends on whether the company has a staggered board.

Staggered boards make winning control via a stand-alone proxy contest more difficult by requiring a rival team to win two elections to gain control. Challengers considering running a stand-alone proxy contest already face significant impediments (Bebchuk and Hart, 2002); having to win two elections with one year in between makes the task more difficult. The need to win two such elections requires both more resources and a greater willingness to wait on the part of the challengers. Furthermore, in the first election, shareholders could be deterred from voting for the dissident group's slate by the fact that the dissident group would in any event not be able to gain control for another year (by which time some of the issues raised by the dissidents might be moot) and that the group's success would lead to a divided board during the next year.

Staggered boards also protect incumbents from removal via a hostile takeover because of the interaction between incumbents and a board's power to adopt and maintain a poison pill. By issuing a poison pill—a rights plan that entitle shareholders to dilute the value of the position of a bidder that acquires a large block—a board can practically prevent a hostile bidder from proceeding to purchase such a block<sup>1</sup>. Prior to the development and adoption of the poison pill defense, staggered boards were considered only a mild takeover defense because they did not impede the acquisition of a control block. The introduction and acceptance of the poison pill, however, transformed the market for control, considerably enhancing the antitakeover power of staggered boards.

In the late 1980s and early 1990s, judicial and statutory developments granted incumbents substantial freedom to maintain a pill indefinitely, and thereby block a hostile offer, as long as they are in office. In Delaware, where a majority of public firms are incorporated (Bebchuk and Cohen, 2003), the 1990 Delaware Supreme Court *Time* decision signaled a willingness to permit managers to “just say no.” Subsequently, the 1995 Delaware Supreme Court *Unitrin* decision substantially solidified the power of managers to do so indefinitely.

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<sup>1</sup>Pills consist of rights or stock warrants that allow the holder to buy an acquirer's stock, the target's stock, or both at a substantial discount from the market price. These rights only become exercisable in the event that an acquirer buys more than a certain percentage of the target's stock (typically 10% or 15%) without the target board's approval. These rights are explicitly not exercisable by the acquiring person, so the resulting dilution in his voting power and economic stake may make the acquisition of the target too expensive to pursue. Effectively, the terms of poison pill rights make the acquisition of control, and the resulting dilution, a losing proposition for the bidder.

With regard to states other than Delaware, in the late 1980s and early 1990s most states adopted pill endorsement statutes to establish explicitly the permissibility of poison pills. Even states that do not have such a statute, however, can now be expected to follow Delaware precedents on the subject. Indeed, in the large IRRC data set that we use, the incidence of pre-bid pills among non-Delaware firms incorporated in a state without a pill endorsement statute is similar to the incidence among Delaware firms as well as among non-Delaware firms incorporated in states with a pill endorsement statute. In 2002, for example, the percentage of firms with poison pills in place was 60.2% among Delaware firms (60% of all firms in our data set), 58% among non-Delaware firms incorporated in states with a pill endorsement statute (29% of all firms in our data set), and 57.5% among non-Delaware firms incorporated in a state without a pill endorsement statute (11% of all firms in our data set). This pattern holds throughout the period of our study. Our case law search indicates that, since 1990, there is not a single court decision (under any state's law) that invalidates or requires the redemption of a standard poison pill.<sup>2</sup>

With the board's latitude to adopt and maintain pills indefinitely firmly in place, a hostile bidder can still try to acquire a target over the objection of incumbents by replacing the incumbent directors. By placing an attractive offer on the table, a hostile bidder can attempt to induce shareholders to replace the board with a team of directors (usually nominated by the hostile bidder itself) that announce their willingness to accept the offer. Thus, the extent to which incumbents are now protected from a hostile takeover depends critically on how long and how difficult it would be to replace the incumbents, and thus on whether a staggered board exists.

In particular, by preventing a majority of directors from being replaced before the passage of two annual elections, staggered boards impede hostile bidders in two ways. First, the bidder cannot be assured of gaining control, no matter how attractive the bidder's offer, without waiting a period of at least one year and perhaps more than two years; such a wait period might be rather costly for bidders that want to acquire the target to enjoy synergies or to otherwise carry out long-range plans. This was made clear by the 1995 decision in *Wallace Computer*, which permitted incumbents protected by a staggered board to maintain a pill and block a hostile bid even after the hostile bidder won one-third of the board seats in an election contest. Second, making an irrevocable offer that would be open for such a long period is quite costly to the bidder, but without such an offer, shareholders would be reluctant to vote for the bidder in the first election (Bebchuk and Hart, 2002). Indeed, there is evidence that, at least since 1996, no hostile bidder has ever persisted long enough to win two elections (Bebchuk et al., 2003).

It should be noted that some staggered boards provide a weaker impediment to the replacement of the whole board at the next annual meeting than others. A minority of staggered boards are not fully "effective" (Bebchuk et al., 2003). In this minority of

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<sup>2</sup>The last case invalidating a pill seems to be *Avon Products, Inc. v. Chartwell Associates*, 907 F. 2d 322 (2d Cir. 1990), a Second Circuit decision applying New York state law. In a 1997 case also applying New York state law, *Dynamics Corp of America v. WHX Corp.*, 967 F. Supp. 59 (D. Conn. 1997), the court concluded that pills are permitted under New York State law.

cases, shareholders that are sufficiently determined to replace the whole board may be able to do so for one of three reasons: (1) the staggered board is established in the firm's bylaws, which shareholders can typically amend, and not in the charter, which shareholders cannot amend without board initiative; (2) the firm's charter does not prevent shareholders from "packing" the board by increasing the number of board seats and filling them; and, (3) the firm's charter and the law of the firm's state of incorporation do not take away from shareholders the power to remove directors "without cause." Because we have data on whether staggered boards are established in the bylaws or in the charter, we can separate from the set of companies with staggered boards a subset of firms whose staggered boards provide less effective protection against removal by determined shareholders. This enables us to test whether more and less effective staggered boards exhibit different correlations with lower firm value.

Finally, the above analysis of the significance of staggered boards is supported by the evidence in [Bebchuk et al. \(2002, 2003\)](#). This evidence indicates that effective staggered boards are indeed a key factor that determines the outcome of hostile bids, with staggered boards increasing considerably the odds of the target's remaining independent. Other defenses, such as pre-bid poison pills, supermajority voting provisions, and fair price provisions, have much less significance for the outcome of hostile bids.

## 2.2. *The question and the research strategy*

The above discussion indicates that, on both theoretical and empirical grounds, the strength of a director's protection from removal depends critically on whether the firm has an effective staggered board. The question, however, is whether the protection from removal provided by effective staggered boards has overall a positive or a negative impact on firm value. The debate on this subject has been going on for the last 25 years, with participants identifying many ways in which protection from removal can affect value (see [Bebchuk \(2002\)](#) for a review). Among other things, such protection can have the following effects:

(i) Management behavior and incentives: Most importantly, protection from removal can affect how incumbents run the firm, which in turn affects the current and future profitability of the firm (and thus affects elements (1) and (3) above). On the one hand, protection might hurt shareholders by weakening the disciplinary threat of removal ([Manne, 1965](#)) and thereby increasing shirking, empire-building, and the extraction of private benefits by incumbents. On the other hand, protection might benefit shareholders by inducing management both to make efficient investments in long-term projects ([Stein, 1988](#); [Bebchuk and Stole, 1993](#)) and to avoid inefficient actions that it might otherwise undertake to reduce the likelihood of a takeover bid ([Arlen and Talley, 2003](#)).

(ii) The probability of an acquisition: Such protection might hurt shareholders by enabling a self-serving management team to block a hostile acquisition in order for the management to retain its independence ([Easterbrook and Fischel, 1981](#)), and by discouraging potential acquirers from searching for target companies and making offers for them ([Grossman and Hart, 1980](#)). However, protection from removal also

might benefit shareholders by enabling loyal boards to reject an offer that management's private information suggests is inadequate (Lipton, 1979) and by encouraging potential targets to search for attractive opportunities to be acquired.

(iii) Acquisition premia: Protection from removal might help shareholders by strengthening the bargaining power of incumbents, enabling them to extract higher acquisition premia (Stulz, 1988). However, management might have significant bargaining power even without protection from removal (Bebchuk, 2002). Furthermore, incumbents might use whatever additional power comes with such protection to extract side payments for themselves rather than higher premia for shareholders (Bebchuk, 2002; Hartzell et al., 2004).

One approach for an empirical investigation of the overall desirability of protection from removal is to investigate each of the particular effects listed—e.g., the effect on acquisition premia, the effect on the incidence of hostile acquisitions and negotiated acquisitions, the effect on operating performance, the effect on empire-building, and so forth—and then to aggregate these effects. Some prior work focuses on several of the pieces needed for putting together the overall impact of removal protection. The difficulty with this approach is that it cannot resolve whether the overall impact of protection from removal is positive or negative until we identify and measure each of the different effects of protection.

An alternate strategy, which we use in this paper, is to focus on the effect that removal protection has on market values. To the extent that the market correctly estimates the value of firms, the firms' market-to-book ratios should reflect the aggregate effect of removal protection on shareholder interests.

Our approach might be questioned on the grounds that it seems to assume that the market accurately assesses the consequences that staggered boards have on shareholders' interests. However, it is plausible to assume that, by the middle of the 1990s, the market had considerable experience with the effects of staggered boards. More importantly, our approach can be useful even if the market is not assumed to recognize and accurately assess the various effects of staggered boards. Even without identifying how exactly firm value is affected by staggered boards, the market may be assessing firm value directly and accurately. That is, the market may be able to assess directly various aspects of management's performance such as its strategy, the extent to which it has a tendency to engage in empire-building or the extraction of private benefits, etc. To the extent that the market estimates firm value accurately, the existence of an association between firm value and staggered boards would be significant even if the market itself does not focus on or recognize this association.

We therefore test below the hypothesis that staggered boards are associated with lower market value. We also test whether this effect is smaller or nonexistent for staggered boards that are bylaws-based and therefore provide relatively ineffective protection against removal.

### 2.3. *Prior empirical work*

Although significant reservations have been expressed with respect to the use of event studies in this area (see, e.g., Gompers et al., 2003), a number of event studies

investigate the changes in stock prices that accompanied the passage of state antitakeover statutes (see, e.g., [Karpoff and Malatesta, 1989](#) and [Gartman, 2000](#) for a survey of this body of work).<sup>3</sup> However, differences in antitakeover statutes among states of incorporation are not the key determinant of the level of removal protection that management enjoys in any given company. For one thing, all the impediments established by standard state antitakeover statutes can be overcome if a hostile bidder can get shareholders to replace the incumbent board. Thus, even when a firm's state of incorporation has all five standard antitakeover statutes, incumbents have relatively limited protection from removal if the corporate charter does not establish a staggered board. Indeed, there is evidence that a target's state of incorporation is not a key determinant of the outcome of hostile offers ([Bebchuk et al., 2003](#)).<sup>4</sup>

Another set of studies examines how the adoption of a poison pill affected stock prices (see, e.g., [Ryngaert, 1988](#); [Comment and Schwert, 1995](#)). The stock price reaction to the adoption of a pill reflects, however, not only the expected effects of the pill but also inferences that investors draw as to management's private information about the likelihood of a bid ([Coates IV, 2000](#)). Furthermore, and most importantly for our purposes, having a pill in place cannot be expected to affect substantially the extent to which incumbents are protected from removal ([Coates IV, 2000](#)). Firms can put a poison pill in place after a hostile bid has been launched without a shareholder vote; thus, boards that do not have a pill at any given point in time still enjoy the protection of a "shadow" or "off-the-shelf" pill. Moreover, as explained, once a bid is launched, the extent to which a pill can protect against the bid depends on the extent to which the firm's charter protects the board from being voted out by shareholders.

[Garvey and Hanka \(1999\)](#), [Johnson and Rao \(1997\)](#), and [Borokhovich et al. \(1997\)](#) study the effects that antitakeover charter provisions have on various aspects of corporate performance. However, they lump together effective staggered boards, which we predict to have significant effects, with other antitakeover arrangements such as fair price arrangements, which theory predicts should have only mild or insignificant effects. In the modern landscape of takeover contests, provisions like fair price arrangements are largely irrelevant. With incumbents permitted to maintain poison pills, hostile bidders cannot purchase a controlling block without first replacing incumbents with a board that is willing to accept the offer, and fair price arrangements generally do not apply to takeover bids approved by the board. The above studies also rely in part on data from the 1980s, i.e., prior to the legal

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<sup>3</sup>In addition to the above event studies, other work finds that the passage of state antitakeover statutes increased management's tendency to take actions favorable to it, such as making executive compensation schemes less performance-sensitive (e.g., [Bertrand and Mullainathan, 1999, 2003](#)).

<sup>4</sup>More telling could be current work in progress by Robert Daines who is studying the effect of the 1991 passage of Massachusetts' antitakeover statute. In a talk on this project at the meeting of the American Law and Economics Association ("Do Staggered Boards Affect Firm Value? Takeover Defenses After the Poison Pill"), Daines presented preliminary findings suggesting that this statute had negative effects on the stock prices of Massachusetts firms. Such findings would complement our results nicely. [Swartz \(1998\)](#) presents results on this subject that are somewhat difficult to interpret.

developments that permitted incumbents to maintain pills indefinitely, which thus gave effective staggered boards their antitakeover potency.

While [Bebchuk et al. \(2002, 2003\)](#) do study the effects of effective staggered boards using data from recent years, these studies focus only on a subset of the effects that such defenses have on shareholder value. In particular, these studies find that effective staggered boards have a negative effect on shareholder returns after a hostile bid is made ([Bebchuk et al., 2002, 2003](#)). We supplement this work by investigating the overall impact that effective staggered boards have on firm value.

Consistent with our results, [Faleye \(2005\)](#) confirms our finding of a negative correlation between staggered boards and Tobin's Q. His study does not control for other governance provisions, however. As [Gompers et al. \(2003\)](#) observe, staggered boards are positively correlated with other provisions that weaken shareholder rights, and thus with the broad-based governance index ("GIM index") that [Gompers-Ishii-Metrick](#) construct on the basis of 24 such provisions (including staggered boards as one element of this index). Thus, any investigation of whether staggered boards are correlated with firm value must control for other governance provisions. We control for such provisions in this paper by using as a control an index based on all the provisions in the GIM index other than staggered boards.

Our work is related to the work of [Gompers et al. \(2003\)](#) in two ways. First, as just noted, to obtain reliable findings on the correlation between staggered boards and firm value, we use the other provisions in the GIM index as a control in our work. Second, our paper helps explain the source of the correlation that their study identifies between the GIM index and a lower Tobin's Q. Their study does not attempt to isolate the effects of any given provision, and thus does not identify which arrangements are especially responsible for the documented association between the GIM index and lower firm values.

There are reasons to expect that some of the provisions in the GIM index matter much more than others, and moreover, that some of the provisions are, at least partly, a product of the others. For example, business combination statutes, control-share acquisition laws, and fair price provisions—three elements of the GIM index—are protections introduced for the most part during the 1980s and made largely redundant by the subsequent development of the poison pill ([Bebchuk et al., 2003](#)). In terms of endogeneity, some of the arrangements forming the GIM index (e.g., change-in-control provisions in compensation contracts) can be unilaterally installed by incumbent directors without shareholder approval. Whether incumbents adopt such provisions might depend on how insulated management is by other arrangements, such as the existence of charter-based staggered boards, that incumbents cannot adopt without shareholder approval.

Our study complements the [Gompers-Ishii-Metrick](#) study by identifying the effect of the staggered board element of their index. Our hypothesis is that staggered boards, especially charter-based staggered boards, make a substantial contribution toward the negative correlation between the broad GIM index and a low Tobin's Q that the [Gompers-Ishii-Metrick](#) study identifies.

### 3. The data

#### 3.1. Sources

Our focus is on the correlation between firm value and staggered boards during the period 1995–2002. As explained earlier, and as discussed in detail by [Subramanian \(2004\)](#), the legal rules that made effective staggered boards so powerful were firmly in place by 1995.

The data set includes all the companies for which there is information in one of the volumes published by the Investor Responsibility Research Center (IRRC) during the period 1995 to 2002. The IRRC published volumes in 1995, 1998, 2000, and 2002. Each volume includes between 1,400 and 1,800 firms, with some changes in the list of included firms from volume to volume. In any given year of publication, the IRRC firms accounted for more than 90% of the total capitalization of the U.S. stock market.

The IRRC volumes provide data, now largely available at Wharton Data Research Services (WRDS) about various corporate governance provisions for each included company, as well as the company's state of incorporation. The IRRC data electronically available at WRDS indicates whether each company has a staggered board but does not distinguish (following [Gompers et al., 2003](#)) between charter-based and bylaws-based staggered boards. However, information regarding whether a staggered board is established in the charter or in the bylaws is provided in the IRRC volumes themselves; we hand-code this information.

Because IRRC did not publish volumes in each year, we fill in for missing years by assuming that the governance provisions reported in any given year were in place also in the year preceding the volume's publication. In the case of 1996, for which there was no IRRC volume in the subsequent year, we assume that the governance provisions were the same as reported in the IRRC volume published in 1995. We verify that using a different filling method does not change the results.

Data about firm financials is taken from Compustat. Data about the age of firms is taken from the data set used by [Gompers et al. \(2003\)](#), who in turn estimate firm age based on the first date for which pricing information about a firm is available from the Center for Research in Securities Prices (CRSP).

We exclude firms with a dual class structure; in such firms, the holding of superior voting rights is likely to be the key for entrenching incumbents. We also exclude real estate investment trusts (REITs), which have their own special governance structure and entrenching devices. Our data set includes both financial and nonfinancial firms; running our regressions on a subset including only nonfinancial firms (as done by [Daines, 2001](#)) yields similar results throughout.

#### 3.2. Summary statistics

[Table 1](#) provides summary statistics for the percentage of firms with staggered boards, charter-based staggered boards, and bylaws-based staggered boards in our data. Throughout the period 1995 to 2002, the percentage of firms that have a

Table 1

## Incidence of staggered boards

This table provides the percentage of all firms in the IRRC data in each of the years 1995, 1998, 2000, and 2002 that have staggered boards, charter-based staggered boards, and bylaws-based staggered boards. Information about whether firms have a staggered board is taken from the IRRC data on WRDS, and information about whether staggered boards are established by the charter or the bylaws is taken from the IRRC volumes published in each of these years.

Year	Staggered board (%)	Charter-based staggered board (%)	Bylaws-based staggered board (%)
1995	61.4	54.0	7.4
1998	59.0	53.5	5.5
2000	60.3	54.5	5.8
2002	61.6	54.9	6.7

staggered board was about 60%. Among the staggered boards, a small minority—between 9% and 12%—were established in the firm's bylaws rather than in the firm's charter.

We now provide summary statistics on the incidence of staggered boards in different subsets of our data, focusing on firms in 2002 (the picture is similar for earlier years). Figs. 1 and 2 depict the presence of staggered boards in different data subsets defined by market capitalization and firm age. As these two figures indicate, when we divide firms into different segments by market capitalization (Fig. 1) and age (Fig. 2), staggered boards have a substantial presence in each segment. In addition, when we divide firms into groups based on industry sectors, we find that staggered boards have a large presence in each industry sector.

Figs. 1 and 2 also indicate that bylaws-based staggered boards exist in each of the firm groups. However, the fraction of staggered boards that are bylaws-based tends to be smaller among firms with lower market capitalization and among firms that went public in the past one or two decades.

About 60% of the firms in our data set are incorporated in Delaware. As Fig. 3 indicates, the percentage of staggered boards is the same among both Delaware and non-Delaware firms. However, the fraction of staggered boards that are bylaws-based is somewhat smaller among Delaware firms than among non-Delaware firms.

## 4. Results

### 4.1. The association between staggered boards and firm value

In studying the association between staggered boards and firm value, we use Tobin's Q as the measure of firm value. In doing so, we follow earlier work on the association between corporate arrangements and firm value (see, e.g., Demsetz and Lehn, 1985; Morck et al., 1988; McConnell and Servaes, 1990; Lang and Stulz, 1994; Yermack, 1996; Daines, 2001).

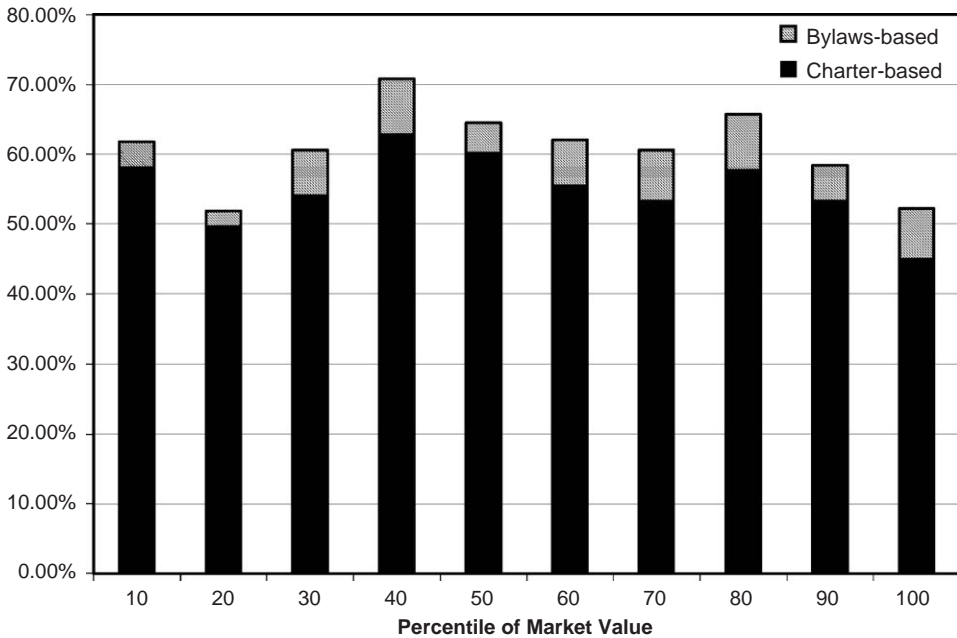


Fig. 1. Staggered board incidence and market capitalization. This figure displays the percentage of firms with staggered boards, charter-based staggered boards, and bylaws-based staggered boards in 2002 in each of the ten deciles of the IRRC firms defined by market capitalization at the end of 2002. Data about staggered boards is obtained as indicated in the legend accompanying Table 1.

We use the definition of Tobin's  $Q$  used by [Kaplan and Zingales \(1997\)](#), [Gompers et al. \(2003\)](#), and others. According to this specification,  $Q$  is equal to the market value of assets divided by the book value of assets, where the market value of assets is computed as the book value of assets plus the market value of common stock less the sum of book value of common stock and balance sheet-deferred taxes. This measure, and simpler ones that drop deferred taxes, have been regularly used in light of the complexities involved in the more sophisticated measures of  $Q$  and the evidence of a very high correlation between this proxy and those more sophisticated measures (see, e.g., [Chung and Pruitt, 1994](#)).

Our dependent variable is industry-adjusted Tobin's  $Q$ , which is a firm's  $Q$  minus the median  $Q$  in the firm's industry in the observation year. We define a firm's industry by the firm's two-digit primary SIC code. Using the Fama-French classification of industry groups rather than SIC two-digit codes yields similar results.

We run four regressions. In all of the regressions, we include all the controls used by [Gompers et al.](#): the assets of the firm (in logs), the age of the firm (in logs) ([Shin and Stulz, 2000](#)), whether the firm is incorporated in Delaware, dummies for two-digit SIC codes, and year fixed effects. In some regressions we include additional controls as detailed below. In all these regressions (as well as in subsequent

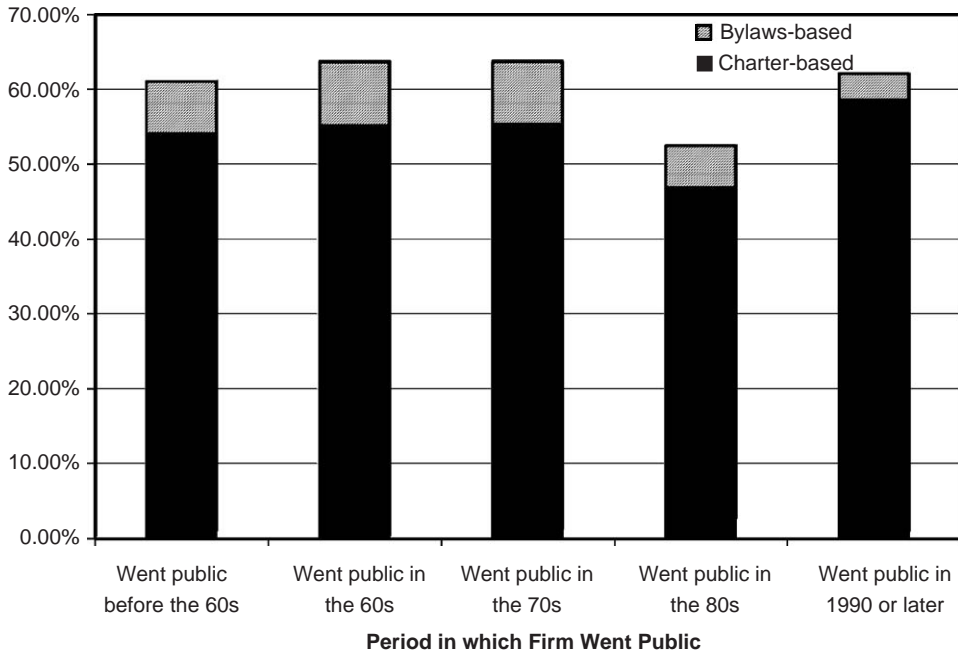


Fig. 2. Staggered board incidence among different cohorts. This figure displays the percentage of firms with staggered boards, charter-based staggered boards, and bylaws-based staggered boards in 2002 among firms that went public before the 1960s, firms that went public in the 1960s, firms that went public in the 1970s, firms that went public in the 1980s, and firms that went public in the 1990s or later. Data about staggered boards is obtained as indicated in the legend accompanying Table 1.

regressions) we use White (1980) robust standard errors to account for potential heteroskedasticity.

Our first regression includes only the controls listed in the preceding paragraph; their results are displayed in Table 2, column 1. As the table indicates, staggered boards are associated, at 99% confidence, with a lower firm value. This is the case for both the longer period and the more recent period.

We turn next to controlling for corporate governance provisions other than staggered boards. Staggered boards are correlated with a high GIM index, an index that Gompers et al. (2003) find is correlated with reduced firm value. Thus, the question arises regarding whether the identified correlation between staggered boards and lower firm values might be driven by other management-favoring provisions that companies with staggered boards have.

To control for other governance provisions, we create an index of all the other 23 management-favoring provisions followed by IRRC. Essentially, we divide the GIM index constructed by Gompers et al. (2003) into two components, namely, the staggered boards element and all the other provisions in the index. The GIM index is constructed by adding one point for each management-favoring provision (among the set of 24 possible management-favoring provisions) that a firm has. Having a

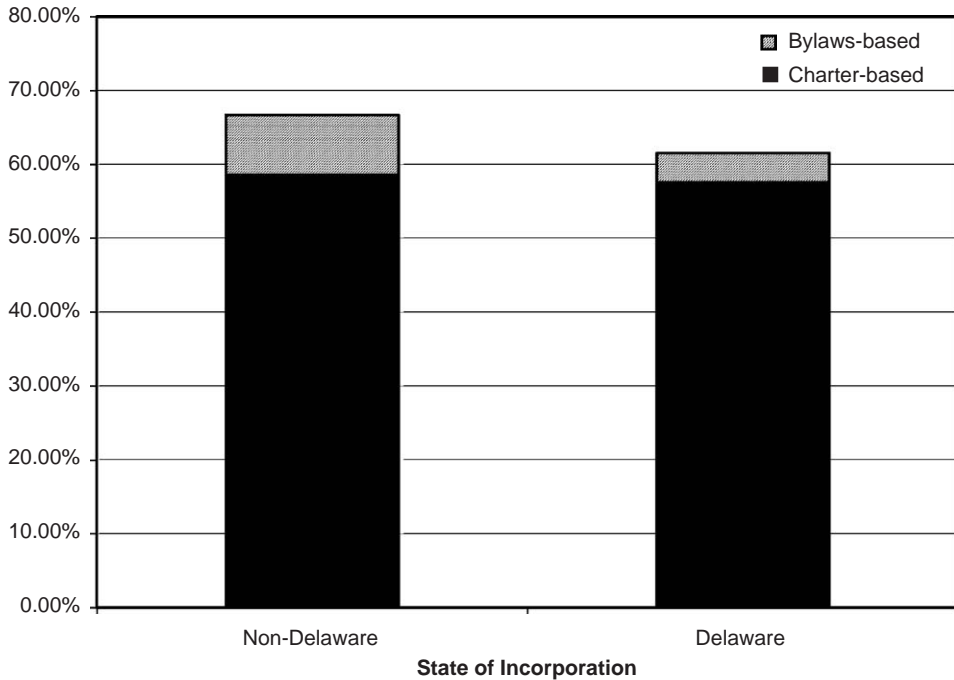


Fig. 3. Staggered board incidence among Delaware and non-Delaware companies. This figure displays the percentage of firms with staggered boards, charter-based staggered boards, and bylaws-based staggered boards in 2002 among IRRC firms incorporated in Delaware and outside of Delaware. Data about staggered boards is obtained as indicated in the legend accompanying Table 1.

staggered board also adds one point to the index. We therefore define for each firm a parameter labeled the Other Provisions Index ( $GIM^*$ ), which is equal to the firm's  $GIM$  score minus the contribution of the firm's staggered board if any—i.e., equal to the  $GIM$  score minus one if the firm has a staggered board, and equal to the  $GIM$  score otherwise.

Column 2 displays the results of a regression in which the Index of Other Provisions is added as an independent variable. The other provisions index is significant at a 99% confidence level, consistent with the possibility that staggered boards do not fully drive the correlation between higher  $GIM$  score and lower firm value. Notwithstanding the inclusion of the Other Provisions Index,  $GIM^*$ , the coefficient of staggered boards remains significant at a 99% confidence level.

Note that staggered boards are correlated not only with the  $GIM$  index but also with Other Provisions Index  $GIM^*$ . Staggered boards and  $GIM^*$  have a stable positive correlation of 0.32–0.36 during the period 1995 to 2002. Because the correlation between staggered boards and  $GIM^*$  introduces a problem of colinearity, our results might be biased against finding significance for either one of these parameters. Thus, even if the introduction of  $GIM^*$  were to make the coefficient of staggered boards no longer significant, it would not rule out the

Table 2

## Staggered boards and firm value

This table reports pooled ordinary least squares (OLS) regressions of industry-adjusted Tobin's Q on staggered boards and various controls. Tobin's Q is the ratio of the market value of assets and the book value of assets, where the market value of assets is computed as book value of assets plus the market value of common stock less the sum of book value of common stock and balance sheet-deferred taxes. Industry-adjusted Tobin's Q is equal to Tobin's Q minus the median Tobin's Q in the industry, where industry is defined by the two-digit SIC code. The staggered board dummy is equal to one if the firm has a staggered board provision, and zero otherwise. The other provisions index is equal to the GIM Index (Gompers et al., 2003) minus one if the company has a staggered board, and equal to the GIM index otherwise. Insider Ownership is equal to the fraction of shares held by insiders. ROA is the ratio of net income to total assets. CAPEX/Assets is the ratio of capital expenditures to assets. R&D Sales is the ratio of research and development expenditures to total sales. Year dummies and a dummy indicating when R&D data is missing are included in all regressions, but their coefficients (as well as the constant) are omitted. OLS estimates are White (1980) robust. Standards errors appear in parentheses and levels. Levels of significance are indicated by \*, \*\*, and \*\*\* for 10%, 50%, and 1%, respectively.

Variable	(1)	(2)	(3)	(4)
Staggered board	−0.21*** (0.034)	−0.166*** (0.036)	−0.169*** (0.035)	−0.174*** (0.044)
Index of other provisions		−0.024*** (0.006)		−0.013 (0.01)
Log (index of other provisions)			−0.179*** (0.058)	
Log (assets)	0.00 (0.009)	0.003 (0.009)	0.003 (0.009)	−0.04*** (0.013)
Log (company age)	−0.168*** (0.023)	−0.147*** (0.023)	−0.148*** (0.023)	−0.232*** (0.032)
Delaware incorporation	0.02 (0.031)	0.016 (0.031)	0.016 (0.031)	−0.017 (0.04)
Insider ownership				0.016** (0.007)
Insider ownership squared				−0.0003*** (0.0001)
Return on assets				0.028 (0.029)
CAPEX/assets				1.00*** (0.325)
R&D/sales				0.01 (0.008)

possibility that staggered boards are correlated with industry-adjusted Tobin's Q. We do not have to address this problem, however, because the coefficient of staggered boards remains negative and statistically significant despite the stacking of the deck against such a finding.

It should also be noted that the introduction of the Other Provisions Index, GIM\*, reduces by about 20–25% the magnitude of the coefficient of staggered boards. However, the coefficient of staggered boards remains large—seven times larger than the coefficient for an average one-point increase in the GIM\*. This result

indicates that staggered boards play a relatively large role compared to the average role of other provisions included in the GIM index. It is worth noting that the distribution of GIM\* is somewhat concentrated, with about 80% of the firms located within a range of seven index points. This pattern is consistent with the possibility that staggered boards play a relatively large role in the correlation between the GIM index and lower firm value.

Column 3 of Table 2 displays the results of a regression in which  $\log(\text{GIM}^*)$  rather than GIM\* is used as a control. As this column indicates, using this different functional form for GIM\* produces similar results. In unreported regressions, instead of GIM\* or  $\log(\text{GIM}^*)$  we use a dummy variable indicating whether the firm's level of GIM\* exceeds the median level (i.e., whether the firm is in the top half of the firms in terms of GIM\*). Staggered boards remain significant at the level of 99% confidence. The coefficient for staggered boards does not significantly change and is substantially *higher* than the coefficient associated with being in the top half of firms in terms of GIM\*. For the association with firm value, having a staggered board appears to be significantly more consequential than being in the top rather than bottom half in terms of GIM\*.<sup>5</sup>

We next run a regression with controls additional to those used by Gompers et al. (2003) in their Q regressions. Specifically, we add controls for the level of insider ownership (allowing, as is standard, for insider ownership to have different effects below 5%, between 5% and 25%, and above 25%), the return on assets in the current and prior years, the ratio of capital expenses to total assets, and the ratio of R&D expenditures to sales. The results are displayed in column 4. They indicate that, with the addition of these controls, the coefficient of staggered boards retains its magnitude and 99% confidence.

It is worth noting that the coefficient of staggered boards is not only statistically significant but also economically significant. During the period 1995 to 2002, and controlling for other governance provisions, having a staggered board is associated with a Tobin's Q that is lower by 17 points.

As to the coefficients of the various controls that we use, one that is worth noting is the coefficient of Delaware incorporation. In all of the regressions whose results are displayed in Table 2, the coefficient of Delaware incorporation is statistically insignificant. The correlation between Delaware incorporation and firm value has already attracted some attention because of its potential implications for the long-standing debate on regulatory competition among states. Daines (2001) finds positive association between firm value and Delaware incorporation during the period 1981 to 1996. Bebchuk and Cohen (2003) find no such correlation in 1999, and Subramanian (2004) finds that such an association did not exist during the 1990s except for small firms during the period of 1991 to 1996. However, none of these three studies control, as we do, for corporate governance provisions.

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<sup>5</sup>In other unreported regressions, we use as controls dummies based on dividing the firms in our data set into smaller groups based on their levels of GIM\*, including dividing these firms into separate groups for each possible level of GIM\*. These specifications again yield similar results in terms of the magnitude and significance of the coefficient of staggered boards.

Table 3  
Staggered boards and firm value—annual regressions

This table reports annual regressions of industry-adjusted Tobin's Q on staggered boards and various controls. The independent variable is industry-adjusted Tobin's Q defined in the same way as in Table 2. The independent variables in the regression displayed in column 2 are the same as in the regression reported in column 4 of Table 2. The table reports only the coefficients of the staggered board dummy and the Index of Other Provisions. Fama–Macbeth coefficients are calculated and reported in the last row. Levels of significance are indicated by \*, \*\*, and \*\*\* for 10%, 5%, and 1%, respectively.

Year	(1)		(2)	
	Staggered board	Other provisions index	Staggered board	Other provisions index
1995	−0.121* (0.074)	−0.014 (0.013)	−0.230** (0.108)	−0.006 (0.020)
1996	−0.192** (0.008)	−0.0007 (0.014)	−0.145* (0.088)	0.008 (0.019)
1997	−0.171** (0.084)	0.015 (0.016)	−0.90 (0.086)	0.005 (0.019)
1998	−0.189* (0.106)	−0.031* (0.017)	−0.222** (0.120)	0.006 (0.026)
1999	−0.325** (0.151)	−0.070** (0.028)	−0.34* (0.176)	−0.06 (0.038)
2000	−0.110 (0.111)	−0.045** (0.021)	−0.065 (0.108)	−0.034 (0.024)
2001	−0.136* (0.079)	−0.017 (0.014)	−0.078 (−0.069)	0.004 (0.015)
2002	−0.045 (0.061)	−0.018 (0.012)	−0.088* (0.053)	−0.015 (0.012)
Fama–Macbeth coefficients	−0.161*** (0.0004)	−0.023*** (0.0000)	−0.157*** (0.0006)	−0.011*** (0.0000)

For a robustness check, we also estimate annual regressions. Because it is not common for firms to change their staggered boards status during the period of our study, either by adopting a staggered board or dropping it, there is little point in running a fixed firm effects regression that focuses on the variation over time within each given firm. Our robustness analysis therefore uses annual regressions, and we run for each year two regressions, both controlling for the Index of Other Provisions, GIM\*. The first regression does not include controls other than those used by Gompers et al. (2003). The second regression uses all the additional controls that we use in the regression reported in column 4 of Table 2. The results of all the annual regressions are displayed in Table 3 below: the first column of Table 3 reports for each year the coefficient of staggered boards and the Index of Other Provisions in regressions of the first type; the second column of Table 3 does the same for the second type of regression.

As Table 3 indicates, the coefficient of staggered boards is negative in each and every year in either type of regression. Furthermore, the coefficient of staggered boards is significant in six out of the eight annual regressions in the first column, and in five out of the eight annual regressions in column 2. When the annual regressions

are put together using the Fama–Macbeth methodology, the coefficients on staggered boards are negative at the 99% confidence level in both regressions.

#### 4.2. Exploring simultaneity

The correlation identified between staggered boards and lower firm value raises the question of simultaneity. How should we interpret the identified correlation? Do staggered boards bring about a lower firm value? Or, is the correlation produced by the selection of staggered boards by firms with lower firm values—either because boards of low-value firms feel more vulnerable to a takeover or because low-quality management tends to both produce low value and seek antitakeover protection?

Such questions of interpretation often arise, and have proven difficult to resolve, in studies of the correlation between Tobin's Q and various corporate structures. We also are unable to establish conclusively the direction of causation. However, we explore this question using the fact that charter-based staggered boards cannot be adopted by incumbents without a vote of shareholder approval, which was generally difficult to obtain during the 1990s.

During this period, shareholders were generally unwilling to approve charter provisions establishing a staggered board. Recognizing the unwillingness of shareholders to approve such provisions, the management of existing companies without such provisions generally did not attempt to get such provisions adopted. During 1991–2002, the incidence of proposals to adopt a charter-based staggered board was quite low (Klausner, 2003).

Thus, if a firm did not have a charter-based staggered board in 1990, the year in which the first IRRC volume was published, its management was generally unable to adopt such a staggered board later. A firm's not having a charter-based board at any given time  $t$  during our period of study thus does not necessarily reflect a time- $t$  decision by management to not have such a protective arrangement; rather, it might simply reflect the fact that the company did not have such an arrangement in the beginning of the 1990s.

Whereas shareholders were generally unwilling to permit existing firms to adopt charter-based staggered boards during the 1990s, shareholders did not have the power to dismantle charter-based staggered boards in firms that already had them when the decade started. While the shareholders of many firms with a charter-based staggered board passed and continue to pass shareholder resolutions in favor of destaggering the board, such resolutions are precatory, and management commonly ignored them. As a result, during the period of our study, there were not only few firms adding charter-based staggered boards, but also few firms dropping them.

Thus, for firms that went public prior to 1990, whether they had a charter-based staggered board at the end of our period of study largely depends on the firms' "initial condition," i.e., on whether they had a charter-based staggered board in 1990. We therefore run regressions similar to those in Table 2, limiting ourselves to firms that went public prior to 1990 and for which we have information about their 1990 governance provisions. We run four regressions using different controls, and display the results in Table 4 below. The first regression (column 1) controls

Table 4

1990 Staggered boards and firm value, 1996–2002

This table reports pooled OLS regressions of industry-adjusted Tobin's Q during the period 1995 to 2002 on whether the firm had a staggered board in 1990 plus various controls. The independent variable is industry-adjusted Tobin's Q as defined in the regressions of Table 2. The dummy Staggered Board 90 is equal to one if the firm had a staggered board provision in 1990 and zero otherwise. The Index of Other Provisions is equal to the GIM Index in 1990 minus one if the company had a staggered board in 1990 and equal to the GIM index in 1990 otherwise. Tobin's Q 90 is the industry-adjusted Tobin's Q in 1990. All other independent variables are defined in the same way as in the regressions of Table 2. As before, the coefficients on the constant, the year dummies, and the dummy indicating when R&D data is missing are omitted. Estimates are White (1980) robust. Standard errors appear in parentheses, and levels of significance are indicated by \*, \*\*, and \*\*\* for 10%, 5%, and 1%, respectively.

Variable	(1)	(2)	(3)	(4)
Staggered board 90	-0.069** (0.034)	-0.060* (0.034)	-0.067** (0.033)	-0.06* (0.033)
Other provisions index	-0.012* (0.008)		-0.008 (0.007)	
Other provisions index 90		-0.015** (0.007)		-0.011 (0.007)
Tobin's Q 90			0.398*** (0.043)	0.397*** (0.043)
Log (assets)	0.079*** (0.011)	0.080*** (0.011)	0.076*** (0.01)	0.077*** (0.01)
Log (company age)	-0.099*** (0.036)	-0.091*** (0.036)	-0.050 (0.035)	-0.044 (0.035)
Delaware incorporation	-0.034 (0.031)	-0.029 (0.031)	-0.024 (0.03)	-0.020 (0.03)
Insider ownership	0.0067 (0.006)	0.006 (0.006)	0.006 (0.006)	0.005 (0.006)
Insider ownership squared	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0001 (0.0001)
Return on assets	8.01*** (0.35)	8.01*** (0.351)	6.62*** (0.347)	6.62*** (0.347)
CAPEX/assets	-0.107 (0.32)	-0.103 (0.32)	0.556* (0.286)	0.549* (0.286)
R&D/sales	5.34*** (0.749)	5.35*** (0.753)	4.15*** (0.741)	4.16*** (0.744)

for other governance provisions during the year of observation; the second regression (column 2) controls for other governance provisions that were in place in 1990. In both regressions we control for the full set of firm characteristics that we used earlier. In both regressions, the coefficient of staggered boards is negative, large, and statistically significant at the 99% confidence level. As before, the coefficient of staggered boards is seven times larger than the coefficient of the other provisions index.

It might be argued that, although the existence of a staggered board in 1990 could not have resulted from a low value in the late 1990s, both the 1990 staggered board and the low value later on might be a product of some other early parameter of the

company. According to this view, having a feature X in the 1980s—say, a self-serving management—could have led both to a firm's having a charter-based staggered board in 1990 and also to the firm's having a low firm value in 1990 and subsequently also throughout the following decade. In assessing the plausibility of this explanation, note that public companies and their management change a fair amount over time. The managerial team that ran a company in the 1980s is commonly no longer in charge by the late 1990s. In any event, to explore this possibility, we run two additional regressions in which we also control for industry-adjusted Q in 1990. The results of these regressions, one using the index of other provisions at the time at which the industry-adjusted Tobin's Q is measured and the other using the index of other provisions in 1990, are displayed in columns 3 and 4 of Table 4.

The results indicate that (industry-adjusted) Q during 1995 to 2002 is indeed positively correlated (at the 99% confidence level) with (industry-adjusted) Q in 1990. However, even after controlling for 1990 Q, having a staggered board in 1990 remains correlated with the firm's value during the period 1995–2002 with a coefficient that remains large and significant at the 99% confidence level.

The above results cast doubt on the possibility that the association between the staggered boards of pre-1990 firms and low firm value during 1995–2002 is fully driven by the initial selection of staggered boards by firms that already had low values in 1990. The results are consistent, of course, with the association under consideration being at least partly produced by the staggered board that companies adopted during the 1980s or earlier, whatever the reason. Of course, resolving questions of simultaneity is a notoriously difficult task, and it would be worth studying this question further, and, in particular, investigating what caused some firms but not others to have staggered boards in 1990.

According to the results reported in Table 4, having a staggered board is associated with a Tobin's Q that is lower by 0.06 to 0.066. For the pre-1990 companies for which the regressions of Table 4 are run, average Q was 1.56 in 2002 and 1.88 during the period 1995 to 2002. Thus, to the extent that these results reflect staggered boards reducing Tobin's Q, the reduction amounts to 3% to 4% of the average Tobin's Q.

#### 4.3. Charter-based vs. bylaw-based staggered boards

Lastly, we examine whether charter-based staggered boards and bylaws-based staggered boards have different effects. Toward this end, we rerun all three regressions displayed in Table 2 that controlled for the other provisions index, replacing the dummy variable for a staggered board with separate dummy variables for a charter-based staggered board and a bylaws-based staggered board. The results are displayed in Table 5.

As Table 5 indicates, in all the regressions the coefficient of charter-based staggered boards is negative and significant at the 99% level of confidence. As to bylaws-based staggered boards, their coefficient is negative but not statistically significant in all the regressions. We perform an *F* test that enables us to reject (at the

Table 5

Charter-based staggered boards vs. bylaws-based staggered boards

This table reports pooled OLS regressions of industry-adjusted Tobin's Q on charter-based staggered boards and bylaws-based staggered boards, plus various controls. The regressions are the same as those reported in columns 2, 3, and 4 of Table 2 except that the independent variable staggered board is replaced by two independent variables: (i) charter-based staggered board, which is equal to one if the firm has a staggered board provision in its charter, and zero otherwise, and (ii) bylaws-based staggered board, which is equal to one if the firm has a staggered board provision in its bylaws (but not in its charter), and zero otherwise. As before, the coefficients on the constant, the year dummies, and the dummy indicating when R&D data is missing are omitted. Estimates are White (1980) robust. Standard errors appear in parentheses, and levels of significance are indicated by \*, \*\*, and \*\*\* for 10%, 5%, and 1%, respectively.

Variable	(1)	(2)	(3)
Charter-based staggered board	-0.170*** (0.036)	-0.172*** (0.036)	-0.184*** (0.044)
Bylaws-based staggered board	-0.086 (0.054)	-0.087 (0.054)	-0.071 (0.074)
Other provisions index	-0.025*** (0.006)		-0.013 (0.010)
Log (other provisions index)		-0.183*** (0.057)	
Log (assets)	0.003 (0.009)	0.003 (0.009)	-0.042 (0.013)
Log (company age)	-0.148*** (0.023)	-0.149*** (0.023)	-0.234*** (0.031)
Delaware incorporation	0.019 (0.032)	0.019 (0.032)	-0.014 (0.041)
Insider ownership			0.016** (0.007)
Insider ownership squared			-0.0003** (0.0001)
Return on assets			0.028 (0.029)
CAPEX/assets			0.967*** (0.326)
R&D/sales			0.011 (0.008)

99% confidence level) the hypothesis that the estimated coefficients of charter-based staggered boards and bylaw-based staggered boards are the same.

It should be noted that our data does not enable us to identify all the staggered boards that are relatively ineffective against removal by determined shareholders. Our data enables us to identify those staggered boards whose effectiveness is reduced by their being established in the bylaws rather than in the charter, but does not enable us to identify those charter-based staggered boards whose effectiveness is reduced because shareholders pack the board or remove the board without cause. Thus, the coefficients of charter-based staggered boards that we obtain in the above regressions might under-estimate the correlation between fully effective staggered

boards and lower firm value. In future work, it would be interesting to separate charter-based staggered boards that are fully effective from those whose effectiveness is undermined by shareholders' power to pack the board or remove it without cause.

## 5. Concluding remarks

This paper investigates empirically whether substantial protection from removal—such as the protection now provided by staggered boards in a majority of U.S. public companies—enhances or reduces the value of firms. This question has been much debated, and both defenders and opponents of management insulation have identified many ways, some positive and some negative, in which such insulation could affect value. Putting this long-standing question to an empirical test, we find that staggered boards are associated with lower firm value. The reduction in firm value associated with staggered boards is economically meaningful.

The paper also explores the question of simultaneity presented by the identified correlation. We find that, even after controlling for 1990 firm value, having a staggered board in 1990 is associated with a significantly lower value during the period 1995–2002.

We also find evidence that bylaws-based staggered boards do not exhibit the same negative correlation with firm value as charter-based staggered boards. In the ordinary course of events, when shareholders do not desire to replace the board, bylaws-based staggered boards provide the same commitment to continuity and stability in board composition that supporters of staggered boards applaud. However, bylaws-based staggered boards do not provide the same insulation from removal by determined shareholders as do charter-based staggered boards, and such insulation might be associated with lower firm value.

Our analysis helps explain what drives the negative correlation, identified in prior work, between firm value and a broad index based on the 24 IRRC provisions. Our evidence indicates that staggered boards significantly contribute to this negative correlation. In a subsequent study with Allen Ferrell (Bebchuk et al., 2004), we investigate whether there are any provisions other than staggered boards that play an important role in generating this negative correlation. Consistent with the conclusions of this paper, the study finds that the correlation between firm value and the IRRC provisions in the aggregate seems to be driven fully by a small number of provisions.

Another index of corporate governance that has recently received attention is that put together by the Institutional Shareholder Services (ISS). In a recent study commissioned by the ISS, Brown and Caylor (2004) report positive correlation between this index and several measures of firm value and performance. The study also reports that the subpart of the ISS index that seems to be most important is the one based on board composition and not the one based on takeover defenses. Interestingly, however, the ISS incorporates the presence of staggered boards into

the board composition part of its index. Our findings suggest that it would be worth testing whether staggered boards play an important role in the formation of whatever correlation exists between the ISS index and firm value.

By way of limitation, our analysis does not identify the effects of levels of protection from removal more moderate than those arising from staggered boards. Of the firms that do not have effective staggered boards, some have (1) arrangements under which shareholders can remove the board immediately, and others have (2) arrangements under which shareholders can remove the board only at the next annual meeting. We do not identify which of these two groups (1) and (2) has higher market value; rather, we focus only on the consequences of having a considerable level of protection provided by effective staggered boards. Comparing groups (1) and (2) in terms of market value is a worthwhile topic for further research.

Our analysis also leaves future work for some questions about staggered boards. Among other things, it would be desirable to investigate how staggered boards affect various corporate decisions, as well as why firms going public often include staggered boards in their IPO charters (Bebchuk, 2003; Klausner, 2003). It would also be desirable to investigate the correlation between various corporate decisions that affect corporate value—such as decisions concerning acquisitions, executive compensation, distributions, and so forth—and staggered boards. Such additional work is called for by our findings that staggered boards are a key feature of current corporate governance.

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