The Costs of Entrenched Boards

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Abstract

This paper investigates empirically how the value of publicly traded firms is affected by protecting management from removal. In a majority of US public companies, charter provisions establishing a staggered board protect the board from removal in a hostile takeover or a proxy contest. We find that staggered boards established by company charters are associated with a lower market value. Staggered boards that are established in company bylaws, which can be amended by shareholders and thus do not insulate incumbents from removal by determined shareholders, do not have a statistically significant association with reduced market value. We also find some evidence that charter-based staggered boards bring about, and not merely reflect, a reduced firm value. The reduction in market value associated with charter-based staggered boards is economically significant, with a median reduction of 4%-6%.

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1. Introduction

The desirability of protecting the boards of publicly traded companies from removal by shareholders has long been the subject of much debate. Does the threat of removal align the interests of incumbent management with those of shareholders, thereby discouraging shirking, empire-building, the extraction of private benefits, and the rejection of beneficial acquisition offers? Or does the threat of removal reduce shareholder value by distracting management, encouraging "myopic" focus on short-term results, discouraging long-range planning, and weakening incumbents' power to bargain for higher prices in negotiated sales? These questions are undoubtedly among the most important in corporate governance. The debate in the 1950s about proxy contests, the debates during the 1980s and 1990s about takeover defenses, and the current debate on shareholder access to the corporate ballot have all focused to a large extent on this issue.

The extent to which the boards of US public firms are now insulated from removal critically depends on whether they have, as a majority of them do, a charter provision establishing a staggered board. An effective staggered board can prevent shareholders from replacing a majority of the board of directors without the passage of at least two annual elections. It thus makes gaining control of a company – either in a stand-alone proxy contest or in a hostile takeover -- much more difficult.

Staggered boards have been encountering growing resistance from institutional investors during the past decade (Bebchuk (2003), Klausner (2003)). Since the early 1990s, shareholders of existing public companies have been reluctant to approve charter amendments establishing a staggered board (IRRC (2002)). Furthermore, shareholders have increasingly been voting in

favor of precatory resolutions that recommend dismantling existing staggered boards. Such resolutions now obtain an average of 60% of shareholder votes (Georgeson Shareholder (2002)).

But staggered boards also continue to have many defenders (e.g., Koppes, Ganske, and Haag (1999)). A charter amendment requires initiation by the board, and boards commonly elect not to follow precatory shareholder resolutions against charter provisions establishing a staggered board. Defenders of staggered boards stress that staggered boards provide boards with stability and insulation from short-term pressures that are necessary for them to do their job well.

Over the years, participants in the debate over protecting boards from removal have identified many ways in which such protection can affect firm value. Protection from removal can affect the probability of an acquisition, the expected premium in the event of an acquisition, and, most importantly perhaps, the ex ante behavior of management. The overall desirability of such protection depends on the aggregate impact of these effects on expected shareholder value. To shed light on the desirability of defenses, empirical work could attempt to investigate each of these effects. An alternative strategy, which we pursue in this paper, is to study the effect that protection from removal has on market value.

The expected value of a firm's shares at any given point in time depends on the expected performance of management in the event that the firm remains independent, as well as the probability of an acquisition and the expected premium in the event of an acquisition. The market price of a firm's shares reflects the market's best estimate of the expected value of the firm's shares. Thus, identifying the association between market value and protection from removal can shed light on the overall impact of such protection on shareholder interests. Note that, for market values to be useful, it is not necessary for the market to know how the firm's performance and prospects are influenced by the presence of arrangements protecting the board from removal; it is sufficient for the market to do a good job in directly assessing the performance and prospects of firms.

We study the association between staggered boards and market value during the period 1990-2001. We pay special attention to the period 1995-2001, both because this period might be of most interest to the contemporary reader and because the legal rules that make staggered boards a powerful takeover defense were firmly in place by the mid-1990s. Our data set is based on the companies followed by the Investor Responsibility Research Center, which publishes data about the governance provisions of all the companies in the S&P 500, as well as many other companies of significance.

We find that, controlling for relevant firm characteristics including other governance provisions, charter-based staggered boards are associated with a reduced firm value. The association between charter-based staggered boards and firm value is not only statistically significant but also potentially economically meaningful. We estimate the median reduction in firm value associated with charter-based staggered boards to be about 4%-6% of market value.

In contrast, we do not find evidence that staggered boards that are established in the company bylaws have a statistically significant association with a lower firm value. Because shareholders can generally amend their company's by-laws, bylaws-based staggered boards do not protect the board from removal by determined shareholders. Thus, while bylaw-based staggered boards produce similar election patterns to charter-based staggered boards in the common case in which shareholders do not desire to have incumbents replaced, the former generally cannot provide incumbents the protection from removal by determined shareholders that the latter provide. Our findings concerning bylaws-based staggered boards are hence consistent with the hypothesis that increased protection from removal is associated with reduced market value.

As in many studies about the effects of corporate governance arrangements on firm value, the interpretation of our findings is made complicated by simultaneity issues. One possible interpretation is that charter-based staggered boards lead to reduction in firm value. Second, the

association might have been produced by the selection of charter-based staggered boards by firms that have a low value and seek to protect themselves from a takeover. Third, the association might have been produced by the selection of such arrangements by managements with characteristics that also lead to lower value; for example, self-serving incumbents might both seek protection from removal and produce lower share value. To be sure, the second and third interpretations hardly imply a favorable view of charter-based staggered boards. But to the extent that the association between charter-based staggered boards and firm value is fully accounted for by these twp explanations, the magnitude of this association cannot serve as even a proxy for whatever harm if any might be caused by charter-based staggered boards.

We investigate below the question whether the association between charter-based staggered boards and firm value is at least partly a reflection of a negative effect that such staggered boards have on firm value. In exploring this question, we are assisted by 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 in companies that did not have one already. Thus, whether pre-1990 firms had a charter-based staggered board during the second half of the studied period depended substantially on whether they already had a charter-based staggered board in place in 1990; having such a staggered board in 1990, in turn, could not have been a product of low firm value a the end of the 1990s, but rather could at most have been a product of low firm value (or some factors underlying it) in and prior to 1990.

Focusing on firms that went public prior to 1990 (which constitute a majority of the firms in our database), we find a negative correlation between their market values during 1995-2001 and whether they had a charter-based staggered board in 1990. Furthermore, and importantly, such correlation remains (though with weaker magnitude) when we control for firm value in 1990. This finding is consistent with a negative effect of charter-based staggered boards 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 value and a corporate governance index recently identified in an important study by Gompers, Ishii and Metrick (2003). This study constructed and used an index based on twenty-four corporate governance provisions, and it did not identify which ones were especially responsible for the identified correlation. We extend this work by finding, controlling for other governance provisions, that charter-based staggered boards have a strong effect on market value and that this effect is several fold larger than the average effect of other provisions in the constructed index. Thus, charter-based staggered boards are an important source of the identified correlation between market value and the constructed corporate governance index.

Our analysis is organized as follows. Section 2 discusses the institutional background, the questions we seek to examine, and the prior work on the subject. 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

There are two ways in which boards may be removed. One is a stand-alone proxy fight in which a rival team seeks to replace the current incumbents so as to run the company differently. Alternatively, a board may be removed as a result of a hostile takeover in which an outside buyer purchases a controlling block. Either way, how insulated directors are from the risk of removal depends on whether the company has an effective staggered board.

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 a single 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.

In many firms, however, a staggered board does not prevent replacement of the whole board at (or even before) the next annual meeting if shareholders are sufficiently determined to do so. Shareholders can do so, notwithstanding the presence of staggered board, in three cases: (1) when the staggered board is established in the bylaws, which shareholders can typically amend, and not in the charter, which shareholders cannot amend without board initiative; (2) when the charter does not prevent shareholders from "packing" the board by increasing the number of board seats and filling them; and (3) when shareholders have the power to remove directors "without cause."

We shall refer to a staggered board that shareholders cannot overcome in one of these three ways as an effective staggered board (ESB). 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 do not provide an effective protection against removal by determined shareholders. This will enable us to test whether ineffective staggered boards indeed have a different effect than effective ones.

The way in which an effective staggered board affects the prospect of removal via a stand-alone proxy contest is straightforward. It requires a rival team to win two elections to gain control of the board. Challengers considering running a stand-alone proxy contest already face considerable impediments (Bebchuk and Hart (2002)), and having to win two elections one-year apart makes the task all the more difficult. The need to win two such elections requires more resources and patience on the part of the challengers. Furthermore, it could also make shareholders more reluctant to vote for a dissident group the first time around, knowing that election of its slate would lead to a divided board for the next year and that the dissident group

would not be able to gain control for another year, by which time some of the issues raised by the dissidents might be moot.

Effective staggered boards also have a major impact on the prospect of a hostile takeover because of the way in which the law of defensive tactics has developed. Prior to the development and adoption of the poison pill defense, staggered boards were considered a mild takeover defense because they did not impede the acquisition of a control block. The development and acceptance of the poison pill, however, transformed the market for control. As long as a poison pill is in place, it practically prevents a hostile bidder from purchasing a majority of the target's shares.[1]

In the late 1980's and early 1990's, court decisions in Delaware and pill endorsement statutes in other states provided incumbents with substantial freedom to maintain a pill indefinitely and thus block a hostile offer as long as they are in office. In Delaware, the 1990 *Time* decision by the Delaware Supreme Court signaled its willingness to permit incumbents to "just say no," and by 1995 several vivid examples made it clear that Delaware courts would largely let incumbents maintain a pill indefinitely (Subramanian (2004)). In other states, pill endorsement statutes were adopted in the late 1980s and the early 1990s.

Once the latitude to maintain pills indefinitely was firmly in place, a hostile bidder's main hope of acquiring the target over the objection of incumbents lay in the possibility of 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

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[1] Pills consist of stock warrants or rights 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. The terms of poison pill rights make the acquisition of control, and suffering the resulting dilution, a losing proposition for the bidder as a practical matter.

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 critically depends on how long and how difficult it would be to replace the incumbents, and thus on whether an effective staggered board exists.

In particular, by preventing a majority of directors from being replaced before the passage of two annual elections, effective staggered boards impede hostile bidders in two ways. First, the bidder cannot be assured of gaining control, no matter how attractive its offer is, without waiting a period that is at least a year and might exceed two years; waiting so long might be rather costly for bidders that seek the target for synergy reasons or to engage in long-range planning. Furthermore, making an irrevocable offer that would be open for such a long period is quite costly to the bidder, and without making 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 and probably also prior to it, no hostile bidder has ever persisted long enough to win two elections (Bebchuk, Coates, and Subramanian (2003)).

Recent evidence establishes that an effective staggered board is indeed the key factor that determines the outcome of hostile bids (Bebchuk, Coates, and Subramanian (2003)). This evidence indicates that an ESB increases the odds of the target's remaining independent 12 months after a hostile bid from 31% to 64%, and has similarly dramatic effects on the odds of a target's still remaining independent 30 months after receiving a hostile bid. 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.

Having discussed how effective staggered boards insulate incumbents from removal, we should stress the marked difference in this connection between effective and ineffective staggered boards. Consider, for example, a firm with a staggered board that is established in the bylaws, which shareholders can amend, rather than in the charter. As long as the shareholders do

not desire to replace incumbents, the source of the staggered board, which commits the board to a certain pattern of director elections, is largely irrelevant. However, in the rare event that the shareholders do wish to replace incumbents, a bylaw-based staggered board would provide little protection for the incumbents from such removal; it would just require shareholders to vote twice against incumbents – once to repeal the staggered board and once to vote out all the directors – and the two votes can take place at the very same shareholder meeting. Indeed, the evidence about the outcome of hostile bids indicates that, while effective staggered boards significantly increase the likelihood that the target will remain independent, ineffective staggered boards do not (Bebchuk, Coates, and Subramanian (2003)).

2.2 The Question and our Research Strategy

The above discussion indicates that, on both theoretical and empirical grounds, the strength of directors' protection from removal critically depends on whether the firm has an effective staggered board. The question, however, is whether the protection from removal provided by effective staggered boards overall has a positive or a negative impact on firm value.

Simply put, the expected value of a given firm's shares at a given point in time is defined by:

$$EV = \begin{bmatrix} \text{The firm's} \\ \text{cash flow in} \\ \text{the current} \\ \text{period} \end{bmatrix} + \begin{bmatrix} \text{The probability} \\ \text{that the firm will} \\ \text{remain} \\ \text{independent} \\ \text{in the next period} \end{bmatrix} \times \begin{bmatrix} \text{The expected value} \\ \text{of the firm in the} \\ \text{next period in the} \\ \text{event that it} \\ \text{remains independent} \\ \text{in that period} \end{bmatrix} + \begin{bmatrix} \text{The prbability} \\ \text{that the firm will} \\ \text{be acquired in} \\ \text{the next period} \end{bmatrix} \times \begin{bmatrix} \text{The expected} \\ \text{permium in} \\ \text{the event that} \\ \text{the firm will} \\ \text{be acquired in} \\ \text{the next period} \end{bmatrix}$$

The debate on the subject has been going on for the last twenty-five years, with participants identifying many ways in which protection from removal can affect value (see Bebchuk (2002) for a recent survey). Such protection can affect each of the terms on the right hand side of the above formula. Among other things, such protection has the following effects:

(i) Management behavior and incentives: Most importantly perhaps, protection from removal can affect how incumbents run the firm, which in turn affects the current and future profitability of the firm (and thus affecting elements (1) and (3) above). On the one hand, protection might hurt shareholders by weakening the disciplinary threat of removal and thereby increase shirking, empire-building, and extraction of private benefits by incumbents (Manne (1965). On the other hand, protection might benefit shareholders by inducing management to invest in long-term projects (Stein (1988), Bebchuk and Stole (1992)) and to avoid deadweight and 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 to retain management's independence (Easterbrook and Fischel (1981)), and by discouraging potential acquirers from searching for companies and making offers for them (Grossman and Hart (1980)). However, protection from removal also might provide benefits to shareholders by enabling loyal boards to reject an offer that management's private information suggests is inadequate (Lipton (1979)) and by encouraging targets to search for beneficial opportunities to be acquired (Bebchuk (1982)).

(iii) Acquisition premia: Protection from removal might help shareholders by strengthening incumbents' bargaining power and enabling them to extract higher acquisition premia (Stulz (1988). However, management might have significant bargaining power even without protection from removal (Bebchuk (2002), Subramanian (2003))) and, 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, Ofek, and Yermack (2001)).

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 premia in acquisitions, on the incidence of hostile acquisitions and negotiated acquisitions, on operating performance, on empire-building, and so forth and so on -- and then to aggregate them. As will be presently noted, some prior work has focused on some of the pieces needed for putting together the overall impact of protection from removal. The problem with this approach is that it cannot resolve whether the overall impact of protection from removal is positive or negative until we identity and measure each of the different effects that protection has.

An alternative strategy, which is the one that we pursue in this paper, is to focus on the effect that protection from removal has on market values. To the extent that the market correctly estimates the value of firms, the market value of any given firm should equal EV, and thus reflect fully the aggregate effect of defenses on shareholder interests.

Some might argue that, at least during the first part of the 1990's when the market had limited experience with managers' use of their power to block expanded power to maintain pills, it was difficult for the market to form accurate expectations of the consequences that charter-based staggered boards would have on shareholders' interests. However, it seems plausible to assume that, by the middle of the 1990s, the market had considerable experience with the effects of takeover defenses.

In any event, for our strategy to shed light on our question, it is not even necessary to assume that the market is able to measure accurately the effects of staggered-boards. Instead, it might be that the market is able to directly assess various aspects of management's current and expected performance, such as its strategy, the extent to which it has a tendency to engage in empire-building or extraction of private benefits, and so forth. To the extent that the market measures these elements of expected shareholder value correctly in forming the market price, it does not matter for our purposes whether the market accurately understands whether these

elements are negatively or positively affected by the firm's defenses; we would in any event be able to learn about this question from studying the association between market value and defenses.

We shall therefore test below the hypothesis that staggered boards are associated with lower market value. We shall also test whether this effect is smaller or non-existent for staggered boards that are bylaws-based and thus 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, Ishii, and Metrick (2003)), a significant number of event studies was done to investigate the changes in stock prices that accompanied the passage of state antitakeover statutes (see, e.g., Karpoff and Malatesta (1989), and see Gartman (2000) for a survey of this body of work).[2] It is worth noting that most state anti-takeover statutes are not the key determinant of the level of protection from removal that management enjoys in any given company. 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. Recent evidence indeed indicates that a target's state of incorporation is not a key determinant of the outcome of hostile offers (Bebchuk, Coates, and Subramanian (2003)). More telling are two studies about the 1991 passage of Massachusetts' antitakeover statute, which made staggered boards the default arrangement (Daines (2001b), Swartz (1998)). These studies,

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[2] In addition to the above event studies, there is also work that 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)).

with which our findings are consistent, find that this passage was accompanied by negative abnormal returns for Massachusetts firms.

Another set of studies examines how the adoption of a poison pill affected stock prices (see, e.g., Ryngaert (1988)). One problem with such event studies is that, when a firm adopts a poison pill, its stock price might be influenced by inferences that investors make as to management's private information about the likelihood that a bid will be made. Furthermore, and most important for our purposes, having a pill in place cannot be expected to affect substantially the level of protection from removal enjoyed by incumbents (Coates (2000)). Virtually all firms can put a poison pill in place after a hostile bid has been launched – a "morning after pill" – without the need for a shareholder vote; thus, boards that do not have a pill at any given point in time do still enjoy the protection of a "shadow" or "off-the-shelf" pill. Furthermore, 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 Borokohovich, Brunarski, and Parrino (1997) study the effects of antitakeover charter provisions. However, they lump together effective staggered boards, which we predict to have significant effects, with antitakeover arrangements, such as fair price arrangements, that theory predicts should have only mild or insignificant effects. Indeed, 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 willing to accept the offer, and fair price arrangements generally do not apply to takeover bids approved by the board. The considered studies also rely in part on data from the 1980's, i.e., prior to the legal developments that permitted incumbents to maintain pills indefinitely and thus gave effective staggered boards their anti-takeover potency.

Bebchuk, Coates, and Subramanian (2002a, 2002b, 2003) do study the effects of effective staggered boards using data from recent years. But these studies focus only on one part of the overall effect 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, Coates, and Subramanian (2002a, 2003)) and do not have a statistically significant effect on premia in negotiated acquisitions (Bebchuk, Coates, and Subramanian (2002b)). We supplement this work, whose findings are consistent with others, by investigating the overall impact that effective staggered boards have on shareholders.

Finally, in a recent study that our results complement, Gompers, Ishii, and Metrick (2003) identify substantial correlation between firm value during the 1990s and a broad-based index (G) of twenty four corporate governance provisions. This study, however, does not isolate the effects of any given provision, and it thus does not identify which arrangements are especially responsible for the association between the G index and lower firm value.

There are theoretical reasons to expect some of the provisions in the G index to matter much more than others, and indeed to expect some of the provisions to be, 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 G index -- are inapplicable once a bidder succeeds in replacing the board, which bidders must in any event do when incumbents are armed with a poison pill. In terms of endogeneity, some of the arrangements forming the G index can be unilaterally installed by incumbent directors without shareholder approval; this is the case, for example, with respect to change-in-control provisions in compensation contracts, golden parachutes, pension parachutes, and severance arrangements – four elements of the G index. 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 will provide a glimpse inside the box of the governance index. Our hypothesis is that staggered boards make a significant contribution to the negative correlation between the G index and low firm value that the Gompers-Ishii-Metrick study identified.

3. The Data

3.1 Sources

Our data set includes all the companies for which there was information in one of the volumes published by the Investor Responsibility Research Center (IRRC). The IRRC volumes were published in 1990, 1993, 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.

Each of the IRRC volumes included all the firms in the S&P 500 at the time of the volume's publication, plus additional firms that the IRRC viewed as important. In any given year of publication, the firms in the IRRC volume accounted for the lion's share of the U.S. stock market capitalization.

The IRRC volumes provide data, now largely available at WRDS, about various corporate governance provisions for each included company, as well as the company's state of incorporation. The IRRC data that is available at WRDS indicates whether each company has a staggered board but does not distinguish (following Gompers-Ishii-Metrick (2003)) between charter-based and bylaws-based staggered boards. However, the information whether a staggered board is established in the charter or in the bylaws is provided in the IRRC volumes themselves, and we had it hand-coded.

Because IRRC did not publish volumes in each year, we filled 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 1991 and 1996, for which there was no IRRC

volume in the subsequent year, we assumed that the governance provisions were the same as reported in the IRRC volumes published 1990 and 1995 respectively. We verified that using different "filling" methods does not change the results.

Data about firm financials was taken from Compustat. Data about the age of firms was taken from the dataset of Gompers-Ishii-Metric, who in turn estimated it based on the date in which pricing information about a firm first appeared in CRSP.

We excluded firms with a dual class structure, where the holding of superior voting rights might be the key for entrenching incumbents. We also excluded real estate investment trusts (REITs), which have their own special governance structure and entrenching devices. Our dataset includes both financial and nonfinancial firms, but running our regressions on a subset including only nonfinancial firms (as done by Daines (2001a)) yields similar results throughout.

We focus on the association between staggered boards and firm values during the period 1990-2001, with 1990 being the year of publication of the first IRRC volume and 2001 being the last year for which Compustat had financial data about the lion's share of the firms in our dataset. We pay special attention to the sub-period 1995-2001 because the legal rules that made effective staggered boards so powerful were firmly in place by the mid-1990s (Subramanian (2004)), and because firm values in this later period provide us with a way to explore the issue of simultaneity.

We should note that the period for which we have the relevant data is largely a period of a "bull" market. To the extent that one believes that defenses might be more valuable in bear markets than in bull markets, one should not assume that the patterns we identify in our period of study would be equally present in a bear market. With the bull market ending in 2000, we checked whether our results hold if one looks at 2001 observations alone, and they do. Still, we cannot rule out the possibility that the patterns we identify would not exist far into a long bear market.

3.2. Summary Statistics

Table 1 provides summary statistics for the percentage of firms with charter-based and bylaws-based staggered boards in our data. Throughout the period 1990-2001, the percentage of firms in our dataset that have a staggered board is about 60%. Among the staggered boards, 9%-12% are bylaws-based -- and thus do not protect the board from removal by determined shareholders.

Table 1: Incidence of Staggered Board

Year	No Staggered Board	Charter-based Staggered Board	Bylaws-based Staggered Board
1990	41.9%	52.3%	5.8%
1993	40.2%	52.6%	7.2%
1995	38.6%	54.0%	7.4%
1998	41.0%	53.5%	5.5%
2000	39.6%	54.5%	5.8%
2002	38.4%	54.9%	6.7%

Let us now provide some summary statistics about the incidence of staggered boards in different subsets of our data, focusing on firms in 2001 (the picture is similar for earlier years). Figure 1 and Figure 2 depict the presence of staggered boards in different subsets of the data defined by market capitalization and firm age. As these two figures indicate, when we divide firms into different segments by market capitalization or age, staggered boards have a substantial presence in each segment. When we divided firms into groups based on industry sectors, we found that staggered boards similarly have a large presence in each industry sector.[3]

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[3] Gillan, Hartzell, and Starks (2003) find that the incidence of many governance provisions varies greatly among industries, but this does not appear to be the case for staggered boards.

Figure 1: Staggered Board Incidence and Market Capitalization
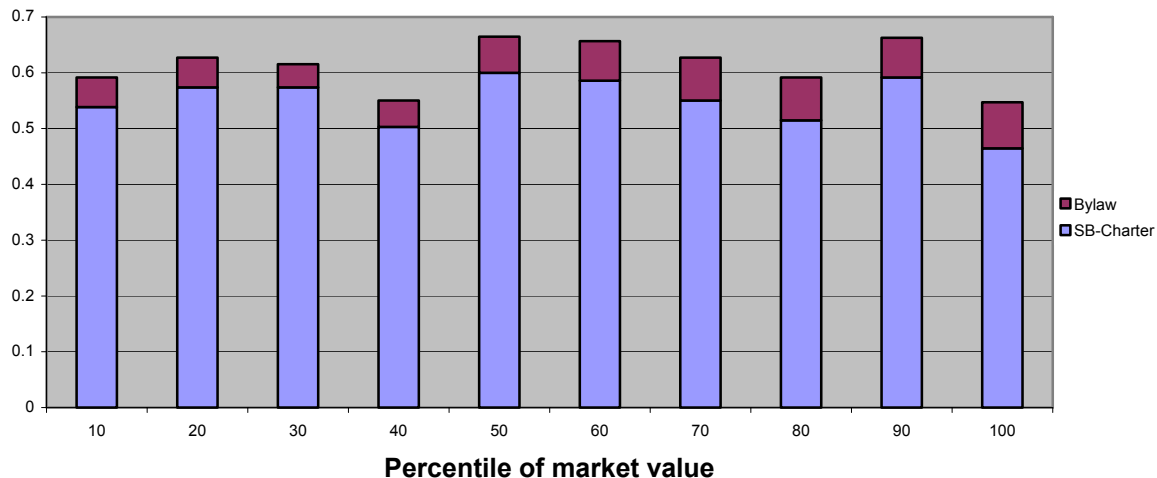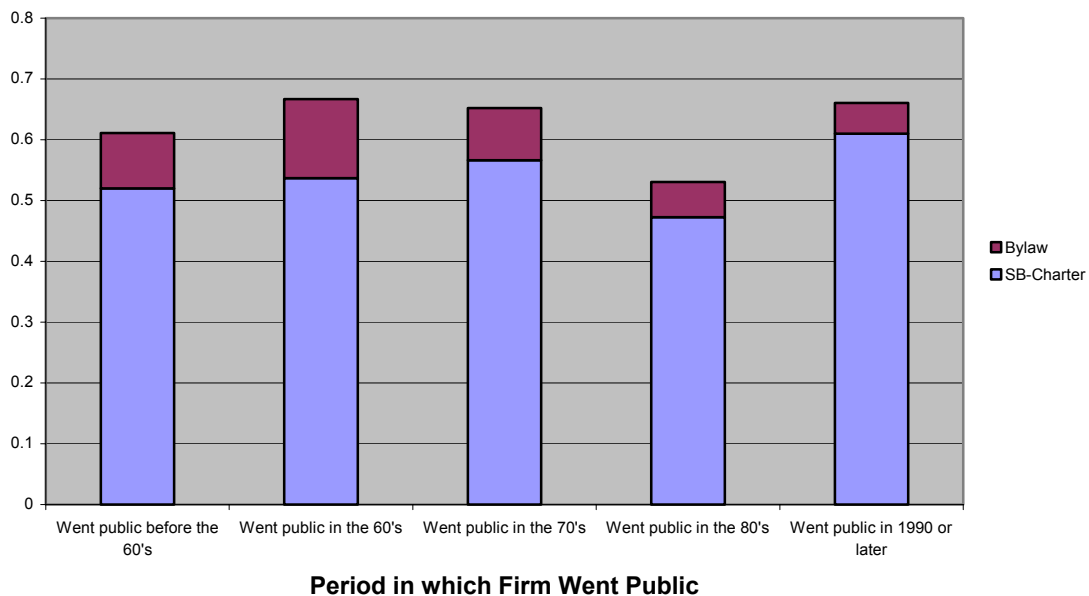

Figure 2: Staggered Board Incidence among Different Cohorts


Figures 1 and 2 also indicate that staggered boards that are bylaws-based 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 dataset are incorporated in Delaware. As Figure 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.

**Figure 3: Staggered Board Incidence among Delaware
and Non-Delaware Companies**
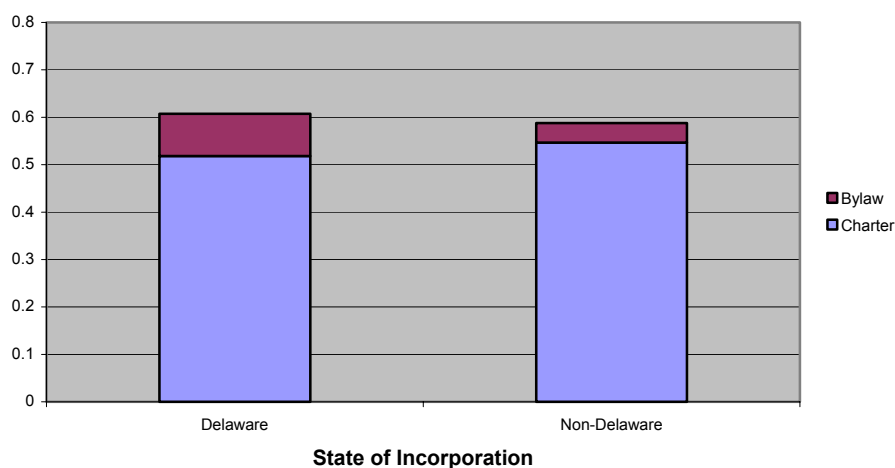
4. Results

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 (Demsetz and Lehn (1985), Morck, Shleifer and Vishny (1988), Lang and Stulz (1994), Yermack (1996), Daines (2001a), and LaPorta et al. (2001)). We

use the definition of Q that was used by Kaplan and Zingales (1997) and subsequently also by Gompers, Ishii, and Metrick (2003) and Subramanian (2004).[4]

Our dependent variable (following Gompers-Ishii-Metrick (2003)) is "relative Q," which is a firm's Q divided by the median Q in the firm's industry in the observation year, expressed in logs. We defined a firm's industry by the firm's 2-digit primary SIC code. Alternative specification of our regressions, with log Q as the dependent variable and SIC codes as industry fixed effects, yield similar results throughout. Also, using the Fama-French classification of industry groups, rather than SIC two-digit codes, yields similar results throughout.

We use a number of standard controls: the assets of the firm (in logs), the age of the firm (in logs) (see Shin and Stulz (2000)), dummies for 2-digit SIC codes, and year fixed effects. Initially, we use only one governance-related control – namely, whether the firm is incorporated in Delaware and thus subject to Delaware corporate law.

We ran two regressions, one for the period 1990-2001 and one for 1995-2001. We used, as we did in all subsequent regressions, White (1980) robust standard errors to account for potential heteroskedasticity. For the robustness check, we also ran the regressions, both here and subsequently, as fixed-effect regressions; using both the random and the between specifications, all the results obtained for the coefficient of charter-based staggered boards are similar to the ones reported above.[5]

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[4] According to this specification, Q is equal to the market value of assets divided by the book value of assets (Compustat item 6), where the market value of assets is computed as the book value of assets (Compustat item 6) plus the market value of common stock (Compustat item 24 * Compustat item 25) less the sum of book value of common stock (Compustat item 60) and balance sheet deferred taxes (Compustat item 74).

[5] Because firms do not vary much in their corporate governance characteristics during the studied period, there is little point in using within regressions which focus on the variation over time within each given firm (in such regressions, G, G*, staggered board, and S&P membership naturally all drop out).

The results of our two regressions are displayed in Table 2, columns 1 and 5 respectively. As Columns 1 and 5 of Table 2 indicate, charter-based 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.[6]

Table 2: Staggered Boards and Firm Value

OLS regression. Dependent variable: log(relative Q)

Variables	1990-2001				1995-2001			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Staggered Board – Charter	-0.05***	-0.037***	-0.038***	-0.046***	-0.058***	-0.043***	-0.044***	-0.051***
	0.008	0.009	0.009	0.008	0.01	0.012	0.012	0.012
Staggered Board – Bylaw	0.0053	0.018	0.017	0.008	0.009	0.024	0.023	0.015
	0.014	0.015	0.015	0.015	0.02	0.02	0.02	0.02
G^*		-0.007***				-0.009***		
		0.002				0.002		
$Log(G^*)$			-0.059***				-0.072***	
			0.0145				0.020	
G^* Top Half				-0.015**				-0.026***
				0.008				0.011
Log(assets)	0.004	0.005*	0.005***	0.0045	0.013***	0.015***	0.015***	0.014***
	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.004
Log(company age)	-0.0567***	-0.050***	-0.051***	-0.055***	-0.054***	-0.047***	-0.048***	-0.051***
	0.005	0.005	0.005	0.005	0.007	0.007	0.007	0.007
Delaware incorporation	-0.012	-0.013	-0.013	-0.012	-0.010	-0.013	-0.013	-0.011
	0.008	0.008	0.008	0.008	0.011	0.011	0.011	0.011
SIC-2 fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	14438	14438	14438	14438	8970	8970	8970	8970
Adj-R²	0.2882	0.2892	0.2891	0.2884	0.3575	0.3584	0.3587	0.3579

*, **, *** Significant at 10%, 5%, and 1% confidence level, respectively.

Consistent with our theoretical predictions, bylaws-based staggered boards do not have the same association with firm value as do charter-based staggered boards. In the regression in

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[6] We also ran annual regressions to check whether the coefficient of charter-based staggered boards fluctuated during the period of study. We found that the level of the coefficient was stable throughout the period 1992-2001. It was lower in 1990 and 1991, the two years in the beginning of the period in which the "just say no" power had not yet firmed up, which is why the level of the coefficient of charter-based staggered boards is slightly lower for 1990-2001 than for 1995-2001.

Column 1, bylaw-based staggered boards do not have a statistically significant association with firm value. We also did an F test, which enabled us to reject (at 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 enables us to identify only some of the staggered boards that are ineffective against removal by determined shareholders – namely, those staggered boards that are established in the bylaws rather than in the charter. Thus, there are likely some charter-based staggered boards that are ineffective because shareholders can pack the board or remove the board without cause. The coefficient of charter-based staggered boards therefore likely provides an under-estimate of the correlation between effective staggered boards and firm value.

A finding that is by itself interesting concerns incorporation in Delaware. In both regressions, the coefficient of Delaware incorporation is negative but not statistically significant. Whether Delaware incorporations are associated with higher firm value is a question that has already attracted some attention because of its potential implications for the long-standing debate on regulatory competition among states. Daines (2001a) finds positive association between firm value and Delaware incorporation during the period 1981-1996. However, Bebchuk and Cohen (2003) find no such correlation in 1999, and Subramanian (2004) finds that such association did not exist during the 1990s except for small firms during the period of 1991-1996. But none of these three studies controlled, as we do, for two parameters that are significantly correlated with firm value – charter-based staggered boards and firm age.

4.2. Controlling for Other Governance Provisions

We next turn to the issue of controlling for corporate governance provisions other than staggered boards. The presence of staggered boards is correlated with a higher G index, an index that is correlated with reduced firm value. Thus, the question arises whether our findings that

charter-based staggered boards are correlated with lower firm value are simply driven by other management-favoring provisions that companies with charter-based staggered boards might have.

To control for other governance provisions, we used the corporate governance index G that was constructed by Gompers, Ishii, and Metrick (2003). We divided this index into two components – the staggered boards element and the rest of the index. G 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 staggered board (whether charter-based or bylaws-based) adds one point to the index. We therefore defined for each firm a parameter G*, which is equal to the firm's governance index G minus the contribution of the firm's staggered board if any – i.e., equal to G minus 1 if the firm has a staggered board and to G otherwise.

Columns 2 and 6 display the results of the regressions, for 1990-2001 and for 1996-2001 respectively, when G* is added as an independent variable. In both regressions, G* is significant at a 99% confidence level, consistent with the possibility that charter-based staggered boards do not fully drive the correlation between higher G and lower firm value. Notwithstanding the inclusion of G*, the coefficient of charter-based staggered boards remains statistically significant at a 99% confidence level in both regressions. The coefficient of bylaws-based staggered boards remains statistically insignificant (as it is in all the regressions in Table 2).[7]

We should note that charter-based staggered boards are correlated not only with G but also with G*. Charter-based staggered boards and G* have a stable positive correlation of 0.31-0.34 during the period 1990-2001. Because the correlation between charter-based staggered boards and G* introduces a problem of co-linearity to our regressions, it biases our results against finding significance for either one of these parameters. Thus, even if the introduction of

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[7] As before, an F test enabled us (as it did for all the regressions in Table 2) to reject the hypothesis that the estimated coefficients of charter-based staggered boards and bylaw-based staggered boards are the same.

G* had made the coefficients of charter-based staggered boards no longer significant, it would not have eliminated the possibility that staggered boards are in fact significant. We do not have to address this problem, however, because the coefficient of charter-based staggered boards remains negative and statistically significant despite the stacking of the deck against such a finding. Note that the significance of charter-based staggered boards when G* is included indicates that, to the extent that the association between charter-based staggered boards and lower market value is due to the former causing the latter, charter-based staggered boards affect firm value at least partly through channels other than through affecting elements of G*.

It should also be noted that the introduction of G* reduces by about 25% the magnitude of the coefficient of charter-based staggered boards. However, in both of the regressions, the coefficient of charter-based staggered boards remains large and, in particular, is five times larger than the coefficient for an average one-point increase in G*. This result indicates that charter-based staggered boards play a relatively large role compared with the average role of other provisions included in the G index.

Columns 3 and 7 display the results of regressions (for 1990-2001 and 1995-2001 respectively) in which *log*(G*) rather than G* is used as a control. As these two columns indicate, using this different functional form produces similar results.

Finally, Columns 4 and 8 of Table 2 display the results of regressions (for 1990-2001 and 1995-2001 respectively) in which, instead of G* or *log*(G*), we use as a control a dummy variable indicating whether the firm's level of G* exceeds the median level (i.e., whether the firm is in the top half of the firms in terms of G*). As the two columns indicate, charter-based staggered boards remain significant at 99% confidence. Interestingly, the coefficient of charter-based staggered boards is substantially *higher* than the coefficient associated with being in the top half of firms in terms of G*. For the association with firm value, having a charter-based staggered board appears to be significantly more consequential than being in the top rather than

the bottom half in terms of G*. This result is, again, an indication that charter-based staggered boards play a more important role in driving the correlation between higher G and lower firm value.[8]

4.4. Exploring Simultaneity

Finding a correlation between charter-based staggered boards and lower firm value confronts us with a question of simultaneity. What explains the identified correlation? Do charter-based staggered boards bring about a lower firm value? Or is the correlation produced by the selection of charter-based staggered boards by firms with lower firm value, either because a low value makes management feel more vulnerable to a takeover or because low-quality management tends both to produce low value and to seek antitakeover protection.

Our exploring this question is helped by the fact that, unlike many other corporate governance provisions included in the G index, charter provisions establishing a staggered board cannot be adopted by incumbents without shareholder approval. For example, a board has the power to install a poison pill or to adopt a compensation arrangement that includes, say, change-of-control provisions or golden parachutes. Thus, a firm's not having one of these provisions at time T must reflect an (implicit or explicit) time-T decision by the board not to have them in place.

In contrast, amending a firm's charter requires a vote of shareholder approval. Furthermore, during the 1990's, shareholders were generally unwilling to approve charter provisions establishing a staggered board. Recognizing shareholders' unwillingness to approve such provisions, management of existing companies without such provisions generally did not

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[8] In unreported regressions, we used as controls dummies based on dividing the firms in our dataset into smaller groups based on their levels of G*, including dividing these firms into separate groups for each possible level of G*. None of these specifications had a substantial effect on the magnitude and significance of the coefficient of charter-based staggered boards.

even attempt to get such provisions adopted ((Klausner (2003)). During 1991-2001, the annual percentage of firms in which management brought a proposal to adopt a charter-based staggered board was less than 0.5%; in 2000, among the 4000 firms whose voting is followed by the IRRC, only ten had a vote on a proposal to stagger the board. In six of these firms, management had over 35% of the shares, and of the remaining four attempts, only one was successful.

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

Note that, whereas shareholders were generally unwilling to permit existing firms to adopt charter-based staggered boards during the 1990's, shareholders did not have the power to cause the dismantling of charter-based staggered boards in firms that 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 de-staggering the board, such resolutions are precatory, and management commonly ignores 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 was not primarily a product of decisions made at the end of this period in light of circumstances prevailing at the time. Rather, it primarily reflected the firms' "initial condition," i.e., whether they had a charter-based staggered board in 1990.

We therefore re-ran our earlier regressions limiting ourselves to firms that went public prior to 1990 and to their values during the period 1995-2001. Column 1 of Table 3 displays the results in the case in which we use G* as control. (The results are similar if we use the other G*-based controls we used in Table 2.)

Table 3: Pre-1990 Charter Decisions and Firm Value

OLS regression. Dependent variable: log(relative Q)

Variables:	(1)	(2)	(3)
Staggered Board – Charter	-0.046*** 0.012		
Staggered Board – Bylaw	0.023 0.02		
Staggered Board – Charter90		-0.034** 0.013	-0.027** 0.013
Staggered Board – Bylaw90		-0.031 0.028	-0.036 0.027
G*	-0.004 0.002	-0.008** 0.003	0.0001 0.003
Log relative Q90			0.52*** 0.015
Log(assets)	0.032*** 0.004	0.05*** 0.005	0.046*** 0.0044
Log(company age)	-0.094*** 0.01	-0.093*** 0.012	-0.037*** 0.010
Delaware incorporation	-0.023** 0.01	-0.027** 0.013	-0.019 0.012
SIC-2 Fixed Effect	Yes	Yes	Yes
Year Fixed Effect	Yes	Yes	Yes
Number of observations	6940	4990	4686
Adj-R^2	0.4245	0.4727	0.2545

*, **, *** Significant at 10%, 5%, and 1% confidence level, respectively.

As before, we find that the coefficient of charter-based staggered boards is significant at 99% significance and has roughly the same magnitude as in the corresponding regression of Table 2 (see column (6)). The coefficient of bylaws-based staggered boards remains insignificant, although its magnitude is larger than before. [9]

Interestingly, the coefficient of Delaware incorporation is now not only negative as before but also significant (at 95% confidence). Also, in this regression, the coefficient on G* is not statistically significant. Because of the co-linearity between G* and charter-based staggered

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[9] Doing an F test enabled us to reject for this regression, but not for the other twp regressions in Table 3, the hypothesis that the estimated coefficients of charter-based staggered boards and bylaw-based staggered boards are the same.

boards, we are reluctant to infer that the provisions in G* have no effect on firm value in firms that went public prior to 1990; we simply flag this finding as one that warrants further investigation.

We next ran a regression in which, instead of dummies indicating whether a firm had a charter-based staggered board or bylaws-based staggered board in the year in which value is observed, we included dummies indicating whether the firm had such provisions in 1990 (the earliest point in time for which there is data about corporate governance provisions in the IRRC volumes). The results, which are displayed in Column 2 of Table 3, indicate that having a charter-based staggered board in 1990 is correlated (at 95% confidence) with having a lower value in 1995-2001, and that having a bylaws-based staggered board in 1990 does not have a statistically significant association with firm values during 1995-2001.

It might be argued that, although having a charter-based staggered board in 1990 could not have been a product of a firm's having a low value in the late 1990s, they might both be a product of some other early parameter of the company. On this story, having a feature X in the 1980's -- 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 both in 1990 and continuing into the late 1990's. In assessing the plausibility of this story, note that public companies and their management change a fair amount over time. Whatever managerial team ran a company in the 1980's is commonly no longer in charge in the late 1990's.

In any event, to explore this possibility, we ran another regression in which we used log(relative Q) in 1990 as an additional control. The results of this regression are displayed in Column 3 of Table 3. The results indicate that log(relative Q) in 1990 is indeed positively correlated (with 95% confidence) with log(relative Q) in 1995-2001. However, even when controlling for log(relative Q) in 1990, having a charter-based staggered board in 1990 remains statistically significant at 95% confidence.

The above regression indicates that the association between the long-standing charter-based staggered boards of pre-1990 firms and low firm value cannot be fully accounted for by the initial selection of such staggered boards by firms that had low value at the time. Rather, the results can be explain by, and are consistent with, the association being at least partly produced by the adoption way back (for whatever reason) of charter-based staggered board. Of course, dealing with simultaneity is a notoriously difficult task, and it would be worth continuing to investigate what caused some firms but not others to adopt charter-based staggered boards during the 1980s and earlier. It is fair to say, however, that the evidence we have thus far found is consistent with charter-based staggered boards bringing about a lower firm value and not merely reflecting it.

4.5. Economic Significance

How economically significant is the association between staggered boards and reductions in market value? Using the results of the regressions in Column 2-4 of Table 2, we calculated for each firm that had a charter-based staggered board at the end of our period of study (2001) its predicted relative Q, and in turn its market value, assuming it did not have a staggered board. Our estimates indicate that the median percentage reduction in market value at the end of our study period was about 6. When these reductions are aggregated over all the firms that had a charter-based staggered board in 2001 when the period of our study ends, they total about $350 billion.

We also did the same calculations using the regression in Column (3) of Table 3, which controls for log(relative Q) in 1990 and produces a lower magnitude for the coefficient of charter-based staggered boards. In this case, our estimates of the reduction in market value associated with charter-based staggered boards provide a median figure of 4% and an aggregate

figure of about $250 million. The range of estimates we obtain indicates that the identified association is not only statistically significant but also economically meaningful.

5. Concluding remarks

This paper has investigated empirically whether substantial protection from removal – such as the protection now provided by charter-based staggered boards in a majority of US public companies – enhances or reduces the value of firms. This question has been long debated, and defenders and opponents of management insulation have identified many ways in which management insulation could affect value, some positive and some negative. Putting this long-standing question to an empirical test, we find that charter-based staggered boards are associated with a lower market value. The reduction in market value associated with charter-based staggered boards is economically meaningful, with a median reduction of about 4-6%.

The paper has also explored the question of simultaneity presented by the identified correlation. Using the fact that shareholders were generally unwilling to approve adoption of charter-based staggered boards during the 1990s, we examine the correlation between firms value during 1995-2001 and having a charter-based staggered board in 1990. We find that, even after controlling for firm value in 1990, a 1990 charter-based staggered board is associated with a significantly lower value at the end of the decade. This finding is consistent with charter-based staggered boards brining about a lower firm value and not merely being selected by low-value firms. Our evidence is thus consistent with institutional investors' policy not to vote in favor of charter amendments establishing a staggered board and to vote in favor of precatory resolutions to dismantle staggered boards.

We do not find statistically significant association between bylaws-based staggered and lower firm value. In the common cases in which shareholders do not desire to replace the board,

bylaws-based staggered boards provide the same board commitment to continuity and stability in composition that supporters of staggered boards applaud. However, bylaws-based staggered boards cannot insulate the board from removal by determined shareholders, and such insulation might be associated with lower firm value.

Our analysis also helps to understand what drives the negative correlation between firm value and a governance index based on twenty-four provisions that prior work has identified. Our evidence indicates that charter-based staggered boards significantly contribute to this negative correlation.

By way of limitation, our analysis does not identify the effects of levels of protection from removal more moderate than those arising from effective 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 some 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, focusing only on the consequences of having the 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 for future work various questions about charter-based staggered boards. For example, it would be desirable to identify how they affect various corporate decisions, and also why firms going public often include them in their IPO charters.[10] Such work is called for by our findings that charter-based staggered boards are a key feature of current corporate governance; such staggered boards deserve much attention from future work.

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[10] Bebchuk (2003) and Klausner (2003) attempt to put forward explanations for the inclusion of staggered boards in the charters of IPO firms.

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