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The Power of Takeover Defenses

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Abstract

We investigate the effects of modern takeover defenses. Following the development of the poison pill, U.S. boards' ability to block an offer that shareholders view as attractive depends on whether the board is protected by an "effective" staggered board (ESB), which prevents shareholders from replacing the full board in a single annual meeting. We test the prediction that the presence of an ESB has an effect on bid outcomes and shareholder returns using a new database of all hostile takeover bids for U.S. targets during the ten-year period 1995-2004 (n=161). We find that an ESB substantially increases the odds that a takeover target will remain independent. Other variables commonly thought to influence the outcomes of bids – such as pre-bid poison pills, the presence of a majority of independent directors on the target board, and target CEO characteristics – appear to have a much less significant effect than the presence of an ESB. We also find that targets that remain independent achieve, on average, significantly lower returns than acquired targets, and we find no evidence that ESBs provide countervailing benefits in the form of higher premiums for targets that are acquired. Putting these findings together, we estimate that having an ESB reduces returns to target shareholders by more than 20% in the five years after the bid is launched.

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1. Introduction

What impact do modern takeover defenses have on the outcome of hostile bids? Do incumbents with strong defenses use them to defeat bids and remain independent, or to extract higher takeover prices? Is it the case that, as many believe, the independence of a target is largely doomed once it is put "in play" by a bid and that the target board, under pressure from investors to sell, can at most use defenses to steer the acquisition toward a white knight? And how does the strength of defenses affect returns? Although financial economists and legal scholars have long been interested in hostile takeovers, the large body of empirical work on takeovers does not provide answers to these questions. Prior research has examined the effects of pre-bid poison pills or simply "added up" takeover defenses, not considering the complex and non-linear interactions between poison pills and the charter provisions that determine how quickly a board that maintains a pill can be replaced.

This paper aims to identify the effects of takeover defenses on bid outcomes and shareholder returns. To this end, we have constructed a new database of all hostile takeovers bids for U.S. targets in the ten-year period 1995-2004. We have examined the charter and bylaws of each target to determine its target defenses, as well as other variables that could potentially influence bid outcomes. Our analysis yields three main findings. First, effective staggered boards have a strong effect on the outcome of takeover contests. We find that an ESB decreases the likelihood that a hostile bidder will gain control within 12 months following the bid from 31% to 17%, and it increases the odds of the target's remaining independent during this period from 37% to 62%. An ESB has similarly dramatic effects on the odds that the target will remain independent 30 months and 60 months after the announcement of the bid. In contrast, we find no evidence that bid outcomes are affected by other defenses that have received substantial attention from financial economists, such as pre-bid poison pills, supermajority voting provisions, and fair price provisions. We also do not find evidence that the composition of the target board, and in particular the presence of a majority of independent directors, affects bid outcomes.

Second, we find that bid outcomes have a statistically and economically significant impact on target shareholder returns. Remaining independent, on average, reduces returns for target shareholders relative to accepting the hostile takeover bid or selling to a white knight. Targets that sell to either a white knight or to the initial hostile bidder achieve approximately

30% higher buy-and-hold abnormal returns in the 12 months after the announcement of a hostile takeover bid. This difference remains unchanged even five years after the announcement of the bid – that is, targets that remain independent do not on average achieve the same returns, either through stand-alone improvements or through selling to a higher-value buyer later, than targets that sell to the hostile bidder or a white knight.

Third, we find that ESB targets do not extract higher premiums from either the hostile bidder or the white knight, relative to non-ESB targets that sell. Nor do we find that ESB targets are more likely than non-ESB targets to reject opportunistic bids that undervalue the company.

Putting these three findings together, we find that ESBs reduce target shareholder returns, by approximately 20% in the five years after the hostile bid is launched. Our results indicate that modern takeover defenses provide management with substantial insulation from hostile takeovers. While our results focus on the ex post effects of defenses – i.e., their effects after a hostile bid is made – they also suggest that, by considerably reducing the discipline of a takeover threat, defenses might also produce ex ante agency problems. Our results are thus consistent with evidence of lower shareholder returns and market valuations for companies with more antitakeover provisions (Gompers, Ishii & Metrick (2003), Bebchuk, Cohen & Ferrell (2005)). Our results also have implications for the desirable regulation of takeover defenses and, in particular, incumbents' use of a pill-ESB combination. These policy implications are developed in companion pieces addressed to a legal audience (Bebchuk, Coates & Subramanian 2002a, 2002b), which also provide a detailed account of the development of modern takeover defenses.[1] Our findings also have implications for the recent and ongoing wave of shareholder precatory resolutions demanding repeal of staggered boards.

The remainder of this paper proceeds as follows. Part 2 provides necessary background on takeover defenses and reviews the prior literature. Part 3 describes our database and provides summary statistics. Part 4 presents our findings concerning the effects of defenses on the

[1] These companion articles, which do not present regression analysis of our data, relied on the results of a preliminary version of this paper (Bebchuk, Coates, and Subramanian (2002c). Commentators on our earlier work urged us to examine returns over a longer period (not just 30 months) in calculating the wealth effects of staggered boards. Accordingly, we expanded our sample to include all hostile bids from 1995-2004, added further controls, and updated our data to include five years (60 months) of shareholder returns. While there are some minor changes in findings, our general results remain as in our earlier paper, on which our policy proposals relied.

outcome of bids. Part 5 presents our findings concerning the effects of bid outcomes and defenses on shareholder returns. Part 6 makes concluding remarks.

2. Background, Motivation, and Prior Work

2.1. The Modern Landscape of Takeover Defenses

Before the poison pill was invented in 1983, takeover defense tactics were varied and limited in their ability to prevent a bidder from acquiring control of a company if the bidder's offer was supported by a majority of the shareholders. Propaganda, defensive lawsuits, "bulking up," asset ("crown jewel") lockups, and greenmail were each effective in certain situations but were not a complete barrier to hostile takeover bids (Clark 1986: 572-74; Gilson 1981). Even a staggered board, which we discuss in more detail below, was a weak defense in the pre-pill era because it did not impede the acquisition of a control block that would guarantee the bidder of getting, albeit with some delay, control over the target's board.

The invention of the poison pill in 1983 changed everything. 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 a shareholder (the acquiring person) 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. (Cf. Subramanian 2007) As long as the pill remains in place, no other defensive measures are necessary because the bid is completely blocked.

The pill's "Achilles Heel" arises from the fact that a pill can generally be removed by the target's board. While courts and state statutes have allowed boards to install pills, they have generally permitted the board to only issue pills that are redeemable, i.e., that can be dismantled by the board then in office.[2] The power to redeem the pill allows the target board to permit a

[2] Efforts to cut off this line of attack by making pills non-redeemable ("no hand" provisions), allowing only continuing directors to redeem the pill ("dead hand" provisions), or delaying redemption for a specified period of time after a change in board composition ("slow hand" provisions) were invalidated by a New York court in the 1980s and by the Delaware courts in the late 1990s, although these pills have been legalized in Pennsylvania, Maryland, Virginia, and Georgia.

friendly bidder to proceed. However, it also makes it possible for a hostile bidder to redeem the pill and proceed with its own bid if it can gain control of the target's board. Thus, once legal rules permitted incumbents to adopt and maintain a poison pill, the arrangements governing board elections became the critical determinant of a firm's defensive posture.

All U.S. companies have either a unitary board, in which all directors stand for election each year; or a staggered board (SB), in which directors are grouped into classes (typically, three), with a single class of directors standing for election at each annual meeting of shareholders. In many cases, however, the presence of a staggered board does not prevent shareholders from replacing the board before waiting through two annual elections. Shareholders can do so, notwithstanding the presence of staggered board, in three cases: (1) when the staggered board is establish in the bylaws (which shareholders can typically amend) and not in the charter (which shareholders usually 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."[3]

When a target has an "effective staggered board" (ESB) with three classes, a bidder must wait through two annual elections of directors. This makes a hostile takeover rather difficult for two reasons. First, the bidder cannot gain be assured of gaining control, no matter how attractive its offer is, without waiting for at least a year and possibly as long as two years. Second, 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 & Hart, 2002). Indeed, our data indicates that no hostile bidder since 1996 has ever persisted long enough against determined target resistance to win board control against ESB

[3] If shareholders can remove directors "without cause," they can remove all directors and then petition the court to order a new election of directors. Under the Revised Model Business Corporation Act (RMBCA) § 8.08, which is followed by 36 states, shareholder may remove directors without cause unless the charter provides otherwise. In contrast, under Delaware law, removal without cause is the default arrangement only if the board is not staggered (Coates 2000). Delaware law governs approximately 50% of publicly-traded firms in the U.S. (Subramanian 2002, Bebchuk & Cohen 2003), and approximately the same percentage of firms subject to hostile bids analyzed in Part 3 (see Table 1). Of the rest, over half are governed by states that have adopted RMBCA control-related provisions. In theory, directors can always be removed "for cause," but courts interpret "cause" strictly, and we are aware of no hostile bids in which removal "for cause" was used to evade a classified board.

target. Practitioners we have interviewed could not recall any specific case prior to 1996 in which this had occurred.

In contrast, if a target does not have an ESB, a ballot box victory is feasible. If shareholders can call a special meeting[4] or act by written consent,[5] a bidder whose offer is attractive to shareholders can gain control over the board without having to wait for the next annual meeting. In such an arrangement, which we label a "no minimum term" (NMT) target, a takeover can occur within just a few months, or as short as a few weeks in some instances. Alternatively, when shareholders cannot act by written consent or call a special meeting, a bidder facing a target without an ESB must wait until the next annual meeting (typically between one and thirteen months away). If the bidder's slate is elected at this annual meeting, the new board can redeem the pill and the bidder can proceed with its acquisition offer. We classify targets that are subject to this kind of attack as "effective annual term" (EAT) targets.

In short, we classify targets into three types based on their director election process. From least to most vulnerable to a hostile bid, they are: (1) "effective staggered board" (ESB) targets, whose boards are protected by a non-evadable staggered board and thus cannot be replaced before the passage of two annual meetings; (2) "effective annual term" (EAT) targets, whose boards can be replaced at (but not before) the next annual meeting; and (3) "no minimum term" (NMT) targets, which have boards that can be replaced by shareholders quickly by filing written consents or by calling a special meeting.

2.2. Questions to be Answered

We seek to answer the following questions:

(1) Does the type of defense (ESB, EAT, or NMT) have an effect on the likelihood that the hostile bidder will gain control and on the likelihood that the target will remain independent?

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[4] If shareholders can call a special meeting, a hostile bidder can solicit consents to call a special meeting, which must then be done within 10-60 days of the demand. Under Delaware law, shareholders do not have the power to call a special meeting unless a firm's charter or bylaws provide otherwise. Under the RMBCA, which is followed by 31 states, shareholders may call a special meeting on the call of a minority (typically 10%) of the shares unless the firm's charter or bylaws provides otherwise.

[5] If shareholders can act through written consent, a hostile bidder can seek consents to replace the board and then file the consents with the corporation. Here again Delaware and the RMBCA take opposite approaches: Delaware law, permits action through shareholder written consent unless a firm's charter specifies otherwise, while RMBCA § 7.04 (followed by 42 states) permits shareholder written action only through unanimous written consent, a rule which effectively cuts off action through written consent.

The preceding analysis of takeover defenses suggests that at least the most potent defense, the pill-ESB combination, provides management with significant power to resist a bidder for a long time. An EAT gives management somewhat more power than an NMT, but both an EAT and an NMT make it possible for a bidder to gain control of the board by winning a single election. Accordingly, we will test the prediction that having an ESB increases the odds of the target's remaining independent and reduces the likelihood of the hostile bidder's success.

The competing hypothesis is that, even when managers have the legal power to resist takeover bids, they do not use this power to remain independent (rather than, say, to extract a higher offer). In this view, incentive schemes for managers, pressure from large-block shareholders, and pressure from independent directors are more important than takeover defenses in determining the outcome of takeover contests. This view finds some support among academics (e.g., Kahan & Rock 2002). This view also has substantial support among some M&A practitioners we interviewed, who believe that, once a target is put "in play" by a hostile bid, powerful dynamics develop and push toward an acquisition (either by the initial bidder or by a white knight).[6]

(2) *For targets of hostile bids that are ultimately acquired, does the type of defense (ESB, EAT, or NMT) have an effect on whether the target is acquired by the hostile bidder or a friendly bidder?*

While we predict that takeover defenses and in particular ESBs significantly increase the odds of the target's remaining independent and reduce the odds of the hostile bidder's success, we expect defenses to have a weaker effect (or even no effect) on the identity of the buyer that will acquire the target if it does not remain independent. There are two reasons for this prediction. First, under the doctrine articulated in the case of *Revlon v. MacAndrews & Forbes, Inc.*, once a target board agrees to certain types of sales, including cash sales, it must achieve the highest short-term value reasonably obtainable for shareholders (Coates & Subramanian 2000).

[6] Representative quotes from prominent M&A lawyers are illustrative: "Given that the target is put in play, it's likely to go. If a bidder is willing to pay, it will succeed. If it is not willing to pay, someone else will come along." "Once somebody starts, and commits to the deal, the ego of the CEO, etc., generally drive it to completion. . . . Like everything else, it's the price that determines whether or not the deal is successful." This conventional wisdom also seems to hold among some prominent investment bankers ("Bankers will come to you and say, 'Life will now change for you – either you will be bought by [the hostile bidder] or you will be bought by somebody else.") and gets transmitted to takeover target clients ("Our investment bankers and everybody told us that once a hostile bid is made, 80% are successful. So we assumed . . . that we were going to be taken over one way or another.").

The target board must maintain a "level playing field" among competing bidders, and it cannot use takeover defenses to favor a friendly bidder over a hostile bidder that offers a higher offer. Second, even when the target is not subject to *Revlon* duties, shareholder must consent (in the form of votes or tenders) in order to sell the company, and shareholders will be reluctant to vote in favor of a transaction when there is a higher offer from another bidder on the table. We expect, then, that when the target board elects to relinquish independence, contests between a hostile bidder and a friendly bidder will be mainly determined by the quality of the offers and not by the target's defenses.

(3) Do strong defenses and, in particular, ESBs, produce higher acquisition prices?

Supporters of defenses argue that they increase management's bargaining position. As a result, they argue, defenses enable targets of hostile bids to obtain a higher price in the event that the target is acquired (e.g., Gordon 2002). Subramanian (2003) develops a theoretical model of the negotiated acquisition process that incorporates the effects of alternatives away from the table, hostile bid costs, and asymmetric information to show that defenses do not necessarily lead to higher premia, and then presents empirical evidence that is consistent with this prediction. Bebchuk (2002) and Subramanian (2003) further argue that to the extent strong defenses give managers greater bargaining power, they might use this power not to raise premia but rather to extract private benefits.[7]

(4) Do stronger defenses and, in particular ESBs, increase the expected returns obtained by target shareholders?

Supporters of defenses that enable boards to block offers that shareholders find attractive (e.g., Lipton 2002) argue that they enhance the wealth of target shareholders by (a) enabling targets to defeat an offer when their management knows it would be able to obtain a higher value by remaining independent, and (b) enabling targets to extract higher premia in the event that they are acquired. In contrast, opponents of defenses that enable boards to block offers that shareholders find attractive (e.g., Bebchuk 2002) argue that such defenses likely reduce the expected returns to target shareholders because (a) they enable incumbents to defeat offers that

[7] This argument receives some support from Hartzell, Ofek & Yermack (2004) and Wulf (2004), who report that, in friendly transactions, managers negotiate a lower premium for their shareholders if they receive private benefits in the takeover.

would be value-increasing but would not serve incumbents' private interests, and (b) this agency cost is unlikely to be outweighed by whatever beneficial effect that defenses might have (if any) on premia. We seek to contribute to resolving this debate by testing whether strong defenses, and in particular ESBs, increase or decrease returns to target shareholders.

2.3 Prior Literature

Early work on takeover defenses focused exclusively on the poison pill. Some early studies, which focused on the earliest days of the poison pill, when its legality and mechanics were still uncertain, found that pills increased the likelihood that a target would remain independent against a hostile takeover bid (Jarrell & Ryngaert (1986), Ryngaert (1988)). Later studies, which focused on data from the 1990s, find no statistically significant differences in independence rates for targets with pre-bid poison pills and targets without pre-bid pills (Aboumeri (1997), Coates (2000)).

The strength of target defenses, however, is not determined by the existence of a pre-bid pill. Virtually all companies can put in a poison pill after a hostile bid has been launched, without the need for a shareholder vote (Coates 2000). These so-called "morning after pills" have been clearly legal in Delaware and other states at least since the early 1990s, which means that hostile bid targets that do not have a pill at the time of the offer almost always have the option to do so at any point until the offer is closed. Thus, companies that do not have a pill at the time of the offer still enjoy the protection of a "shadow" or "off-the-shelf" pill. In the modern era of takeovers, the defensive posture of U.S. public companies is determined not by the presence of the pill, but rather, as explained above, the presence of an ESB or EAT defense that allows the protection of the pill. By focusing exclusively on the pill these early studies fail to capture the actual defensive posture of U.S. firms in the modern takeover arena.

Other early studies examined the returns to target that remained independent. Using a sample of 36 hostile takeover targets from 1973-1979, Lipton (1979) reports that targets that remained independent delivered greater shareholder returns than targets that were sold. This study was cited by the Delaware Supreme Court in upholding Unocal's defensive measures

against hostile bidder T. Boone Pickens in the seminal case *Unocal v. Mesa Petroleum*,[8] yielding the "intermediate" standard of review that all defensive measures are evaluated under today. Gilson (1981), however, points out several flaws in Lipton's study, including no adjustment for market movements or time value of money. Bradley, Desai & Kim (1983) examine 112 unsuccessful tender offers between 1963 and 1980, and find that cumulative abnormal returns are lower for targets that remain independent than for those that are later sold. This study includes both friendly bids, whose failure is typically due to financing or regulatory difficulties that are outside the control of the parties, and hostile bids, whose failure is commonly due to target board resistance. This study thus does not isolate and focus on the effects of board resistance that defeats bids. More importantly, all of these studies focused on the pre-pill era, which is very different from the modern takeover landscape.

More recently, a large and growing body of empirical literature has focused on multiple defenses, notably Gompers, Ishii & Metrick (2003) which constructs a "Governance Index" ("G") consisting of eighteen separate defenses, and Bebchuk, Cohen & Ferrell (2005) which constructs an "Entrenchment" Index consisting of six defenses. Both of these studies add up defenses (e.g., supermajority voting provision + poison pill + staggered board = 3), acknowledging that this simple approach can only provide a rough proxy for the actual defensive posture of firms. Nevertheless, even with rough proxies, these studies find that shareholder returns during the 1990s are inversely correlated with the "G" and "E" indices. Bebchuk & Cohen (2005) similarly find that Tobin's Q during the 1990s is inversely correlated with charter-based staggered boards. Bates, Becher & Lemmon (2006) report that staggered boards reduce the likelihood of a takeover bid, but conditional on a bid Bates et al. find no statistically significant effect of staggered boards on bid completion or target shareholder wealth.

3. The Data

3.1. Data Sources

We construct a new data set, starting with data from Thomson Financial Securities Data (formerly Securities Data Corporation), and including all hostile bids against U.S. targets that

[8] 493 A.2d 946 (Del. 1985) n.11 (citing Lipton's "rather impressive" study and an update by Kidder Peabody reaching the same conclusion).

were announced and resolved between January 1995 and December 2004 (n=161). Targets with a controlling shareholder (including dual class structures with a controlling shareholder) and real estate investment trusts (REITs) are excluded.[9] We begin our sample window in 1995 because the legal rules providing incumbents with their current discretion to maintain poison pills were firmly in place by the mid-1990s (Subramanian 2004).

Information on target defenses is obtained by an examination of the charter and bylaws of each target, which we obtained from the targets' filings with the SEC.[10] Default state takeover law comes from Investor Responsibility Research Center's *Corporate Takeover Laws* (Gartman 2000) and default state governance statutes come from IRRC's *Corporate Governance State by State* (Gartman & Issacs 1998).

Bid strategy and bid outcome information are derived from newspaper reports and bidders' SEC filings.[11] Statistics on target CEO characteristics, board composition, and stock ownership come from proxy statements and from Spectrum, a database service that compiles SEC filings by institutional shareholders, insiders, and shareholders with greater than 5% holdings. In classifying directors for our board composition analysis, we follow Yermack (1996) to define "inside," "outside," and "gray" directors.[12] Target shareholder returns data comes from the University of Chicago's Center for Research on Securities Prices (CRSP) database.

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[9] We exclude REIT's and targets with a controlling shareholder because these companies are generally takeover-proof; thus the hostile bid is intended simply to put pressure on the target board to negotiate a sale. In prior work we included these targets in our data set but controlled for their unique characteristics using dummy variables in our multivariate regression models. The results were the same between these two approaches.

[10] Specifically, each target's filings were found by searching for the target in the SEC's online EDGAR database, available at http://www.sec.gov. An exhibit list to the latest Form 10-K was reviewed to determine where to find the target's charter and bylaws; and relevant filings were obtained either from the target's online filings or, where they were unavailable, from Compact Disclosure (a private SEC filing service in CD-ROM and paper formats). We thank Stephen Fraidin, a partner at the law firm of Kirkland & Ellis, and the law firm of Fried, Frank, Shriver & Jacobson, for assistance in finding certain charters and bylaws that were not available from these sources.

[11] Specifically, the target's filings were found, as described in the preceding note, and Schedules 14D-1 or T-O were searched to see if the bidder made a tender offer as part of the hostile bid; if so, the "Background" section of the related offer to purchase (filed as an exhibit to the Schedule 14D-1 or T-O) was read to determine if the bid was a bust-up bid, and to confirm bidder identity, premium, deal size and other data, and outcomes were determined by reviewing subsequent amendments to the Schedule 14D-1. If no Schedule 14D-1 or T-O was filed, Schedules 14A were reviewed to see if the bidder conducted a proxy fight or consent solicitation as part of the bid; if so, similar procedures were followed. If not, Forms 8-K and 10-Q, as well as news stories in Lexis/News (available at http://www.lexis.com) were reviewed to confirm SDC data on the bid, its characteristic, and outcomes.

[12] Inside directors are "board members who are current or former officers of [the] company." Gray directors are board members "who have substantial business relationships with the company, either personally or through their main employers, and also relatives of corporate officers." Outside directors are board members "who have neither inside nor gray status." Yermack (1996)

3.2. Summary statistics

Summary statistics on target defenses, bid strategy, and bid outcomes for this data set are presented in Table 1.

[insert Table 1 about here]

Table 1 shows data for 161 targets overall, divided into ESB targets (40% of the sample) and non-ESB targets (60% of the sample). The median target in our sample has a market capitalization of $330 million. ESB targets have a higher median market capitalization ($561 million versus $280 million for non-ESB targets), but a lower mean market capitalization ($2,275 versus $3,483). These results are consistent with the under-representation of staggered boards among very large firms (Bebchuk, Coates & Subramanian 2002a). Half (53%) of all targets in our sample are incorporated in Delaware, in line with Delaware's 50% share of the corporate charter market overall (Subramanian 2002, Bebchuk & Cohen, 2003).

Examining target takeover defenses, 56% of targets overall have staggered boards. Of the staggered boards, 28% (25 out of 90) are ineffective, leaving 65 ESB targets.[13] ESB targets have higher incidence of fair price provisions (60% for ESB targets versus 40% for non-ESB targets) and supermajority vote provisions (59% versus 24%), consistent with Gompers, Ishii & Metrick (2003), which finds that takeover defenses tend to cluster by company.

Examining board composition, target boards are made up of approximately 70% outside directors, with no significant difference in board composition between ESB targets and non-ESB targets. Overall, hostile bid targets follow approximately the same one-third/two-third divide between inside directors and outside directors as the S&P 1500 companies overall (IRRC 2002). Thus, hostile bid targets do not seem to have boards that are significantly different, as judged by externally observable measures, when compared to a broader set of U.S. public companies.

Bid strategy also demonstrates some sensitivity to the ESB/non-ESB distinction. Tender offers and proxy fights are less likely against ESB targets than against non-ESB targets, perhaps

[13] Among these 25 targets, 11 had staggered boards that were established in the bylaws; 7 permitted "board packing" by not specifying the number of directors in the charter; and 7 more permitted removal of directors without cause. This data highlights why examining simply whether the staggered board appears in the bylaws or charter is inadequate, since more than half (14 out of 25) of the ineffective staggered boards in our sample were established in the charter.

reflecting the bidder's anticipation of the need to negotiate an acquisition of ESB targets. Conversely, and potentially for the same reason, bear hug bids, defined as bids lacking both a tender offer and a proxy contest, are substantially more likely against ESB targets.

Bidders do not seem to make more attractive offers against ESB targets: the incidence of all-cash bids is slightly lower (not higher) against ESB targets, and bid premiums, calculated as the premium of the final bid over four weeks prior to bid announcement,[14] are slightly lower against ESB targets. Although this difference is not statistically significant, the univariate results are inconsistent with the view that ESBs produce higher premia due to the target's greater bargaining power.

Examining bid outcomes 12 months after the announcement of the bid, Table 1 reports that the initial bidder acquired the target in 26% of cases, the target was sold to a white knight in 28% of cases, and the target remained independent in the remaining 47% of cases.[15] Dividing the sample according to whether the target has an ESB reveals a striking difference in success rates: 62% of ESB targets in our sample remained independent 12 months after the announcement of the bid, compared to 37% of non-ESB targets. Conversely, 17% of initial bidders are successful against ESB targets, compared to 31% of bidders against non-ESB targets. These substantial differences in target independence rates and in initial bidder success rates continue to hold 30 months and 60 months after the announcement of the bid. Taken together, these univariate results begin to call into question the view that takeover defenses do not have a significant impact on bid outcomes. The next section tests this prediction in a more rigorous way.

4. The Effect of Defenses on Bid Outcomes

[14] Using other baseline dates yields similar results.

[15] In the initial stages of this project, we used nine months as our definition of the short-run (Bebchuk, Coates, and Subramanian 2002a, 2002c). We now believe that a 12-month window better captures the short-run resolution of the hostile bid because it gives all bidders the opportunity to get to one proxy contest. We thank Eric Robinson for this point. The results are similar when we use either a nine-month or a 12-month window.

4.1. Model Specification

We now use multivariate regression analysis to test the hypothesis that takeover defenses influence bid outcomes. The independent variables of interest are two dummy variables indicating whether the target is an ESB target or an EAT target (thus the baseline case is an NMT target). We also include four dummy variables, each set to 1 if the target has a staggered board (whether effective or ineffective), fair price provision, supermajority voting provision, or a pre-bid poison pill. As described above in Part 2, our theory of takeover defenses predicts that ESBs should have a strong effect on bid outcomes and EATs should have a weaker but still potentially important effect, while fair price provisions, supermajority voting provisions, pre-bid poison pills, and non-effective staggered boards should have no effect on bid outcomes.

We include controls for target characteristics, target CEO characteristics, share ownership, board composition, and bid strategy. On target characteristics, we control for the size of the target (natural log of equity market capitalization), whether the target is incorporated in Delaware, and three financial performance variables measuring the target's pre-bid stock return, pre-bid Tobin's Q, and pre-bid leverage. Stock return is measured as the return (including dividends) to the target company shareholders measured over the 36 months prior to the bid announcement, minus the return to the median company in the industry over the same period, where industry is defined using 2-digit SIC code. Tobin's Q is measured as the Tobin's Q for the company in the fiscal year prior to the bid, minus the median Tobin's Q for the industry for the same year. Leverage is measured as the firm's debt-to-equity ratio (including short-term debt) in the fiscal year prior to the bid, minus the median debt-to-equity ratio for the industry.

On target CEO characteristics, we include "CEO in retirement window," a dummy variable set to 1 if the CEO's age is greater than or equal to 60 at the time of bid announcement; and the percent of total voting shares held by the CEO. The rationales for these controls are that CEOs who are closer to retirement age could be more likely to sell than other CEOs, and that CEO ownership can affect the outcome both by changing CEO incentives and by giving the CEO more power (Stulz 1990; Coates & Kraakman 2003).

On board composition, we include: a scalar variable measuring the number of directors at the time of the hostile bid;[16] a dummy variable indicating whether the CEO is the Chairman of the Board; and a dummy variable indicating whether more than 50% of the board seats are held by outsiders. The hypotheses are that larger boards will be more likely to defer to management interests (and therefore will be more likely to remain independent), due to increased free-rider problems; a CEO who is also Chairman is more likely to dominate his board and thus remain independent; and boards that are more independent of management will be more likely to sell (Brickley, Coles, and Terry 1994).

On share ownership, we include scalar variables indicating the percent of shares held collectively by directors and officers other than the CEO and the percent of shares held by other large (>5%) shareholders. The hypothesis is that greater share ownership by directors other than the CEO or other large shareholders will make the target board more likely to sell to either a white knight or to the hostile bidder.

In addition to the target-side controls described above, we control for three important aspects of the bidder's strategy. First, we control for whether the bidder launched a proxy contest in conjunction with its bid. To qualify as a proxy contest, we require only that the bidder begin the process of soliciting proxies to act at a shareholder meeting, not that the bidder persist through an actual shareholder vote (which is rare in practice). Second, we control for whether the bidder's offer was an all-cash offer, on the view that cash offers are easier to value than stock offers and therefore more difficult for the target board to resist.

Finally, we control for whether the hostile bidder is making a "bust-up" bid – that is, a bid that follows an earlier agreement by the target board for an acquisition by a friendly acquirer. A board that has already agreed to an acquisition, albeit to one by a friendly bidder, is likely to be more open to a sale and, in any event, it would be difficult for it to reverse course and insist on independence.[17] Furthermore, as explained earlier, a board that agreed to a sale might be

[16] Interestingly, we find that many targets in our sample filled vacancies on the board after the hostile bid was launched. This common practice may be more vulnerable to legal attack after the Delaware Supreme Court's opinion in MM Companies, Inc. v. Liquid Audio, Inc., 813 A.2d 1118 (Del. 2003).

[17] An initial bid will typically shift the shareholder profile of the target, as risk arbitrageurs buy and risk-averse individual shareholders sell the target's stock, with the result that if the initial bid falls through, the target's shareholders will be more likely to seek another deal. In addition, if target managers have committed to sell the company to an initial bidder, it will often be difficult for target managers to convince employees or labor unions to

under "*Revlon* duties" to achieve the highest short-term value reasonably obtainable for shareholders (Coates & Subramanian 2000). Bust-up bids are thus qualitatively different from stand-alone hostile bids, and defenses should be less likely to result in a continued independence of the target.

Because of the relatively small number of observations we use a stripped-down baseline model, in which bid outcomes are a function of takeover defenses, target characteristics, CEO characteristics, board composition, and share ownership. In model extensions we include controls for target financial performance and bid strategy, including bid premium.

4.2 Likelihood of remaining independent

Tables 2A, 2B, and 2C report multivariate regression results on the likelihood of remaining independent 12 months, 36 months, and 60 months, respectively, after the announcement of the hostile bid.

[insert Tables 2A, 2B and 2C about here]

These tables indicate that ESBs have a strong impact on independence rates, both in the short-run and in the long-run. The coefficient for EAT targets is also positive in all models and generally statistically significant in the 12-month and 30-month models, and still positive though not statistically significant in the 60-month model. Overall, these results support the theoretical model developed in Part 2, in which ESB's substantially increase the likelihood that the target will remain independent, and EAT's also have an important, but weaker, effect on target independence.

Column (1) of Tables 2A, 2B, and 2C indicate that staggered boards (SB's) have no statistically significant impact on independence rates, either in the short-run or the long-run. This finding is consistent with Bates, Becher & Lemmon (2005), which finds no statistically significant effect of SB's on bid outcomes. The statistical insignificance of the SB coefficient and the strong statistical significance of the ESB coefficient highlight the importance of examining whether a staggered board can be dismantled or packed by a hostile bidder in order to accurately assess the defensive posture of a hostile bid target.

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work in a coalition against a hostile bid, to lobby politicians to enact special legislation, or to convince regulators or courts to intervene against the hostile bid, unless the two bids are dramatically different on relevant dimensions.

Column (2) substitutes the Gompers, Ishii & Metrick (2003) "G" index for the ESB and EAT measures developed here, for the subset of targets for which "G" is available. The coefficient for G is statistically significant in the predicted direction in Tables 2A and 2B, though significance goes away in Table 2C. These results suggest that G is a reasonable proxy for ESB and EAT in predicting short-term and medium-term bid outcomes, though not in the long-term.

Pre-bid poison pills are not correlated with higher likelihood of independence, at 95% confidence, in any regression.[18] In Column (2) of all three tables, the pill coefficient is opposite to the theoretical prediction of those who view the presence of pills as an important defense (or even a signal of target managers willingness to resist a bid). Fair price and supermajority provisions also have no statistically significant effect. These results concerning the relative insignificance of pre-bid pills, as well as fair price and supermajority provisions, are consistent with the theory presented in Part 2 and Coates (2000). These results also call into question the theoretical validity of giving fair price provisions, supermajority voting provisions, and poison pills the same weight as staggered boards, as some prior work does.

In Columns (4) and (5) of Tables 2A, 2B, and 2C we introduce further controls for the target's financial performance and bid strategy. Among these controls, bust-up bids are highly correlated with lower likelihood of remaining independent, in both the short-run the long-run. These results are consistent with our prediction that, once the board has agreed to an acquisition by a friendly buyer, the odds of continued independence will be reduced. A tender offer is also correlated with lower likelihood of remaining independent, consistent with the view that bidders who are willing to make the commitment of a tender offer put more pressure on the target board to sell.

Column (4) also shows that larger firms are less likely to remain independent in the short-run, though this result becomes weaker in the long run. One possible interpretation is that larger deals will generally receive greater media and institutional shareholder attention, which in turn may put greater pressure on the target board to sell in the short run, but if the target board is able to withstand this initial pressure, then media attention does not have any additional influence on the long-run decision to sell (e.g., Hall, Rose & Subramanian 2001). At the very least, the

[18] In unreported regressions, variables interacting staggered boards and pre-bid pills, and effective staggered boards and pre-bid pills, also have no impact on bid outcomes.

coefficients on target size suggest that however difficult large bids may be to finance is well understood by bidders.

Column (6) of Tables 2A, 2B and 2C reports results for mature targets only, defined as targets that have been public for at least five years at the time of the bid. It might be the case that targets with ESBs are different in some underlying features that lead to the adoption of the ESB in the first place. The models in Column (6) attempt to isolate the causal chain running from ESB to target independence, on the view that an ESB installed five or more years earlier is unlikely to translate into large enough differences between the ESB and non-ESB targets at the time of the bid. Column (6) shows that the ESB coefficient continues to be positive and statistically significant at 95% confidence in the 12-month model, and at 90% confidence in the 60-month model. The lower statistical significance relative to the other columns might be due, at least in part, to the smaller number of observations in Column (6). In any case the results are consistent with the view that the causal chain runs from ESBs to bid outcomes.

Among controls, the coefficient for Delaware incorporation is not statistically significant in the short-run, but becomes statistically significant and negative in the long-run (60-month) model. The finding that Delaware firms are less likely to remain independent in the long run is broadly consistent with Daines (2001)'s finding that Delaware firms have higher Tobin's Q than non-Delaware firm.

Examining other controls, the percent held by non-director large (>5%) shareholders significantly reduces the likelihood of remaining independent, supporting the theory put forward in Part 2 that these shareholders can put significant pressure on the board to sell. Other share ownership variables, CEO characteristics, and board composition, are generally not significant, in either the short run or the long run. Because of the small number of observations, our results should not be interpreted as ruling out the view that independent directors and institutional reduce the likelihood that the target will remain independent. However, the results presented in Table 2 do suggest that ESBs are more powerful than these other factors in determining hostile bid outcomes, and that ESBs are not a proxy for these other factors.

4.3 Likelihood of being sold to the hostile bidder

We now turn to the bidder's perspective. Tables 3A, 3B, and 3C report results from outcome models using COMPLETION as the dependent variable, set to 1 if the hostile bidder completes its offer for the target by the end of the specified time window.

[insert Tables 3A, 3B, and 3C about here]

Consistent with the findings from Table 2, Tables 3A, 3B and 3C indicate that an ESB is negatively correlated with success for the hostile bidder, at 95% confidence in the 12-month window, 90% confidence in the 30-month window, and 95% confidence again in the 60-month window. The EAT coefficient is negative in most models, though it is generally not statistically significant, again consistent with the view that an EAT is a less important defense than an ESB. As discussed earlier, an ESB creates both a "delay" problem and a "two-election" problem for a hostile bidder. The findings reported here on the EAT coefficient are consistent with the view that the "two election" problem is more important than the "delay" problem in thwarting a hostile bidder.

Among controls, bid completion for the hostile bidder is positively correlated with size, consistent with the hypothesis that larger hostile bid targets receive greater public scrutiny and institutional pressure which in turn may put more pressure on the target board to sell. The presence of large non-director shareholders is also correlated with a higher likelihood of bid completion. There is also some mild evidence that "hard" offers (i.e., bids that include a tender offer, and, to a lesser extent, all-cash bids) are more likely to succeed, though, curiously, higher premiums do not seem to be correlated with higher likelihood of bid completion. No other controls are statistically significant in any of the models, including other target defenses, CEO characteristics, board composition, and insider share ownership.

4.4 Likelihood of being sold to other bidder, conditional on sale

We now turn to the effect of takeover defenses, in particular ESBs, on whether, conditional on the eventual sale of the target, the target will be acquired by the hostile bidder or a friendly bidder (either one that made an offer prior to the hostile bid or a white knight arriving after this bid). We test the hypothesis that defenses allow targets to choose a friendly bidder over the hostile bidder. We use a dummy variable set to 1 if the target is acquired by the friendly

bidder, and 0 if the target is acquired by the hostile bidder. We run the model only on the targets that have been acquired, 12 months after bid announcement (n=86), 30 months after bid announcement (n=101), and 60 months after bid announcement (n=120). Regression results are reported in Tables 4A, 4B, and 4C.

[insert Tables 4A, 4B, and 4C about here]

These tables show that no takeover defenses, including the ESB defense, are correlated with bid outcome conditional on a sale. The only variable that is statistically significant, at 95% confidence, in predicting the bid outcome between a friendly and a hostile bidder is LNSIZE. Consistent with the findings from Tables 2 and 3, larger targets are more likely to be sold to the initial bidder than to a friendly bidder. These findings are consistent with our prediction that defensive tactics play a key role when the target seek to remain independent but not once it has agreed or is prepared to sell. These findings may explain the beliefs of some practitioners that takeover defenses matter little to bid outcomes: in fact, a hostile bidder is no more or less likely to acquire a target that has already agreed or is prepared to sell.

One important caveat that runs throughout the analysis in this Part is that we have provided here only a partial analysis of the effects of takeover defenses by limiting ourselves to the effects that defenses have given that a bid has been made for the company. We have not examined here the full range of relevant effects, which include the effects of defenses on negotiated acquisitions and on ex ante management behavior. In individual work (e.g., Coates 2000; Bebchuk 2002; Subramanian 2003, 2005) we examine certain aspects of these broader effects.

5. The Effect of Bid Outcomes and Target Defenses on Target Shareholder Returns

We now turn to an analysis of the wealth effects of bid outcomes and target defenses. We construct hypothetical portfolios that divide the sample across two dimensions: the target's defenses (ESB or non-ESB), and the outcome of the bid 12 months after the bid is announced (target remains independent, target is sold to the hostile bidder, and the target is sold to a white knight). For each of these six portfolios (2 types of target defenses x 3 types of bid outcomes),

we calculate abnormal returns from sixty days prior to the bid announcement to 1,250 days (= approximately five years) after the bid announcement. Abnormal returns are calculated as daily target shareholder returns minus the CRSP equal-weighted index. For targets that are sold, we assume that the proceeds are re-invested into the CRSP equal-weighted index. Table 5 reports the results of this analysis.

[insert Table 5 about here]

The first set of portfolios examines all targets, regardless of defenses. It shows that targets that remain independent 12 months after the bid announcement achieve significantly lower returns than targets that are sold to the initial bidder or to a white knight. While the gap closes somewhat in the 30-month portfolio (23% CAR's from remaining independent compared to 33-34% CAR's from selling) the gap expands again in the 60-month window. At the end of five years, remaining independent yields approximately 20% lower CAR's than selling to either the initial bidder or a white knight. Because we use 12-month outcomes to divide the sample for all three portfolios, the benefits of selling to a higher-value bidder down the road, as takeover defense proponents argue, accrue to the "remaining independent" portfolio. The results nevertheless show that remaining independent, on average, is not desirable for target shareholders.

In prior work we present case studies of Circon (Hall, Rose & Subramanian 2001) and Pennzoil (Bebchuk, Coates & Subramanian 2003), which provide vivid illustrations of this empirical finding. These results are in tension with the findings from Lipton (1981), suggesting either that the Lipton sample was too small, the methodological deficiencies were significant (as Gilson 1981 suggests), that the implications of remaining independent have fundamentally changed since the earlier takeover era, or perhaps some combination of these factors.

The next two sets of rows separates the aggregate portfolios according to whether the target has an ESB or not. According to the conventional wisdom among defense proponents, ESB's and other potent defenses may reduce the likelihood of sale, but increase returns for target shareholders conditional on sale. The evidence presented in Table 5 rejects this claim. On average, ESB targets that sell to either the hostile bidder or a third party bidder achieve slightly lower returns than non-ESB targets that sell. This evidence is consistent with the univariate

statistics presented in Table 1, indicating that premiums are slightly lower for ESB targets than non-ESB targets. Subramanian (2003) presents a theoretical model that might explain these findings.

In addition, it might be argued that loyal boards with ESB defenses will be more able to to reject opportunistic bids that undervalue the long-term value of the company. If this hypothesis is correct, then ESB targets that remain independent should outperform non-ESB targets that remain independent. While the short-run (12-month) returns are consistent with this prediction (11.1% CAR's for ESB targets, compared to -1.5% CAR's for non-ESB targets), in the longer-term the non-ESB portfolio outperforms the ESB portfolio. After sixty months, ESB targets that remained independent achieve -5.3% CAR's, compared to 11.7% CAR's for non-ESB targets that remain independent.

Taken together, the results from Tables 2-5 support the following propositions: (1) ESB's substantially increase the likelihood that targets will remain independent; (2) remaining independent, on average, reduces long-run returns for target shareholders, relative to what they would have achieved from selling to the hostile bidder or a white knight; and (3) ESB's do not seem to provide countervailing benefits in the form of higher premiums or ability to resist low-ball offers. The final set of rows from Table 5 puts these factors together. As shown, ESB's across all outcomes, reduce shareholder returns by more than 20% in the five years after a hostile bid is brought.

6. Concluding Remarks

Prior econometric studies of takeover defenses focus on the poison pill, or treat all defenses equally, thereby missing the particular configuration of defenses – which we term an "effective staggered board" – that is far more important in the modern takeover defense landscape. We report strong evidence that ESB targets remain independent more often than non-ESB targets: on average, an ESB increases a target's odds of remaining independent, from 37% to 62%, decreases the odds of a bidder completing its bid from 31% to 17%, and reduces the odds that the target will be forced into selling to a white knight from 32% to 22%, in the 12 months after a hostile bid is announced. These differences persist in the long–run, over the 30 months and 60 months after a hostile bid is announced. When defined appropriately, takeover

defenses, in a word, work. While our finding that ESB targets remain independent more often than non-ESB targets might not surprise many academics or practitioners, the magnitude of the effect appears to be substantially larger than has been perceived.[19] No other target characteristics that we test, including pre-bid poison pills, other takeover defenses, target CEO or board characteristics, or target ownership structure, seem to have as strong an effect on bid outcomes.

The influence of ESBs on bid outcomes has important wealth effects. Targets that remain independent achieve, on average, significantly lower buy-and-hold cumulative abnormal returns for shareholders compared to targets that sell to a white knight or to the initial hostile bidder. ESBs do not seem to provide countervailing benefits in the form of higher premiums for targets that are acquired. Putting these findings together, we estimate that ESBs result in lower abnormal returns of more than 20%, on average, in the five years after the hostile bid is launched, for shareholders of hostile bid targets in the period 1995-2004.

Our findings suggest that incumbents are substantially insulated from a hostile bid in the large subset of firms with ESBs, which should be a concern to anyone who views the "disciplinary" effect of the market for corporate control as beneficial. Our findings also suggest that ESBs impose significant losses on the shareholders of targets with such defenses. These results support the proposal that we have put forward in our companion law review articles that, in the absence of explicit charter provision to the contrary, courts should not generally permit incumbents to use an ESB-pill combination to block offers that clearly enjoy majority support among shareholders (Bebchuk, Coates & Subramanian 2002a, 2002b). In particular, in the absence of explicit authorization in the corporate charter, an ESB target should not, in general, be allowed to further block a hostile bid by maintaining a poison pill after it loses a proxy contest conducted over the offer. This proposal would not affect the consequences that staggered boards have for board composition outside the takeover context. Once a hostile bid is made, however, the proposal would remove the negative effects of ESB that our analysis has identified.

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[19] Before presenting the results of this project to academic and practitioner audiences, we asked participants to answer two questions: (1) what is the overall likelihood of a target remaining independent once a hostile bid has been made; and (2) what is the likelihood of a target remaining independent once a hostile bid has been made if the target has an effective (non-evadable) staggered board? Each respondent individually wrote his or her response on a note card, without discussion. Respondents only identified whether they were an academic or a practitioner. Among M&A lawyers, the mean estimate for likelihood of remaining independent increased by only 5% when the target had an ESB. Among corporate law academics, the mean estimate for the likelihood of remaining independent increased by 9%. The actual increase, as we report in Part 3.2 of this paper, is 25%.

References

Aboumeri, Jamil, 1997. Poison pills and shareholder value, 1992-96 (Georgeson & Company, New York).

Bates, Thomas W., David A. Becher & Michael L. Lemmon, 2006. Board classification and managerial entrenchment: evidence from the market for corporate control. Working paper.

Bebchuk, Lucian A., 2002. The case against board veto in corporate takeovers, University of Chicago Law Review, 69, 973-1034.

Bebchuk, Lucian A., 2005. The case for increasing shareholder power, Harvard Law Review, 118, 833-917.

Bebchuk, Lucian A. & Alma Cohen, 2003. Firms' decisions where to incorporate, Journal of Law and Economics, 46, 383-425.

Bebchuk, Lucian A. & Alma Cohen, 2005. The costs of entrenched boards. Journal of Financial Economics 78, 409-433.

Bebchuk, Lucian A., Alma Cohen & Allen Ferrell, 2005. What matters in corporate governance? Harvard Olin Discussion Paper No. 491.

Bebchuk, Lucian A., John C. Coates IV & Guhan Subramanian, 2002a. The powerful antitakeover force of staggered boards: theory, evidence, and policy, Stanford Law Review, 54, 887-951.

Bebchuk, Lucian A., John C. Coates IV & Guhan Subramanian, 2002b. The powerful antitakeover force of staggered boards: further evidence and a reply to symposium commentators, Stanford law Review, 55, 885-918.

Bebchuk, Lucian A., John C. Coates IV & Guhan Subramanian, 2002c. The effects of Takeover defenses, mimeo, Harvard Law School.

Bebchuk, Lucian A. & Oliver Hart, 2002. Takeover bids vs. proxy fights in contests for corporate control, NBER Working Paper.

Bradley, Michael, Anand Desai & E. Han Kim, 1983. The rationale behind interfirm tender offers: Information or synergy? Journal of Financial Economics 11, 183-206.

Brickley, James, Jeffrey Coles & Roy L. Terry, 1994. Outside directors and the adoption of poison pills, Journal of Financial Economics, 35.

Brickley, James, Gregg Jarrell & Jeff Netter, 1988. The market for corporate control, Journal of Economic Perspectives.

Clark, Robert Charles, 1986, Corporate Law.

Coates IV, John C., 1999. An index of the contestability of corporate control: studying variation in takeover vulnerability. Harvard Law School working paper.

Coates IV, John C., 2000. Takeover defenses in the shadow of the pill: a critique of the scientific evidence, Texas Law Review, 79, 271-382.

Coates IV, John C., 2001. Explaining takeover defenses at the IPO stage: failure in the corporate law market, California Law Review.

Coates IV, John C. & Guhan Subramanian, 2000. A buy-side model of M&A lockups: theory and evidence, Stanford Law Review, 53, 307-397.

Coates IV, John C. & Reinier Kraakman, 2003. Stock options versus real options: CEO incentives and M&A activity in the 1990s. Harvard Law School working paper.

Comment, Robert & G. William Schwert, 1995. Poison or placebo? Evidence on the deterrence and wealth effects of modern antitakeover statutes, Journal of Financial Economics, 39, 3-43.

Cotter, James F. & Randall S. Thomas, 2005. Shareholder proposals post-Enron: what's changed, what's the same?, Vanderbilt Law School working paper.

Daines, Robert, 2001. Does Delaware law improve firm value?, Journal of Financial Economics.

Ganor, Mira., 2006. Why do managers dismantle staggered boards? Working paper.

Gartman, Grant A., 2000. State Takeover Laws (Investor Responsibility Research Center, Washington, D.C.).

Gartman, Grant A., & Jack D. Isaacs, 1998 ed. Corporate governance state by state: a guide to selected statutes (Investor Responsibility Research Center, Washington, D.C.).

Gilson, Ronald J., 1981. A structural approach to corporations: the case against defensive tactics in tender offers, 33, 819-891.

Gompers, Paul A., Joy L. Ishii & Andrew Metrick, 2003. Corporate governance and equity prices, Quarterly Journal of Economics 107-155.

Gordon, Mark, 2002. Takeover defenses work. Is that such a bad thing? Stanford Law Review 55, 819-837.

Hall, Brian J., Christopher J. Rose & Guhan Subramanian, 2001. Circon (A), Harvard Business School case study #9-801-403.

Hartzell, Jay, Eli Ofek & David Yermack, 2004. What's in it for me? Personal benefits obtained by CEO's whose firms are acquired, Review of Financial Studies 17, 37-61.

Jarrell, Gregg, & Michael Ryngaert, 1986. Office of the chief economist of the Securities and Exchange Commission, The effects of poison pills on the wealth of target shareholders, manuscript.

J. P. Morgan & Co., 1995. Poison pills and acquisition premiums, manuscript.

Kahan, Marcel & Edward Rock, 2002. How I learned to stop worrying and love the pill: adaptive responses to takeover law, University of Chicago Law Review, 69, 871-915.

Lipton, Martin, 1979. Takeover bids in the target's boardroom, Business Lawyer, 35, 101-134.

Margotta, Donald G., 1989. Takeover premiums: with and without shareholder rights plans, manuscript.

Pound, John, 1987. The effects of antitakeover amendments on takeover activity: some direct evidence, Journal of Law & Economics, 30, 353-367.

Rosenbaum, Virginia K., 1998. Corporate takeover defenses 1998 (Investor Responsibility Research Center, Washington, D.C.).

Ryngaert, Michael, 1988. The effect of poison pill securities on shareholder wealth, Journal of Financial Economics, 20, 377.

Strine, Leo, 2002. The professorial bear hug: the ESB proposal as a conscious effort to make the Delaware courts confront the basic "just say no" question, Stanford Law Review 55, 863.

Stulz, Rene, 1990. Managerial discretion and optimal financing policies, Journal of Financial Economics 26, 3.

Subramanian, Guhan, 2002. The influence of antitakeover statutes on incorporation choice: evidence on the "race" debate and antitakeover overreaching, University of Pennsylvania Law Review, 151.

Subramanian, Guhan, 2003. Bargaining in the shadow of takeover defenses, Yale Law Journal 113, 621-686.

Subramanian, Guhan, 2004. The disappearing Delaware effect, Journal of Law, Economics & Organization.

Subramanian, Guhan, 2005. Takeover defenses and bargaining power, Journal of Applied Corporate Finance, 17, 85-96.

Subramanian, Guhan, 2007. Bargaining in the shadow of PeopleSoft's (defective) poison pill, Harvard Negotiation Law Review (forthcoming).

Wulf, Julie, 2004. Do CEOs in mergers trade power for premium? Evidence from mergers of equals, Journal of Law, Economics & Organization 20, 60-101.

Yermack, David, 1996. Higher market valuation of companies with a smaller board of directors, Journal of Financial Economics, 40, 185.

Table 1: Summary Statistics on Target Characteristics

Summary statistics for targets of all hostile takeover bids announced between January 1, 1995 and December 31, 2004, excluding bids against REIT's and targets with controlling shareholders. Target defenses are derived from the target's charter and bylaws, as well as SEC filings. CEO characteristics and board composition data come from the last proxy statement before the announcement of the hostile bid. Board composition definitions follows categories defined in Yermack (1996). Share ownership data comes from SEC filings and the Spectrum share ownership database. Standard errors are given in parentheses; * = significant at 90% confidence, ** = significant at 95% confidence, *** = significant at 99% confidence.

% of sample or median (mean)	Total (n=161)	ESB (n=65)	No ESB (n=96)
	(1)	(2)	(3)
Defenses			
Staggered board	55.9%	100%***	26.0%***
Effective staggered board	40.4%	--	--
Fair price provision	47.8%	60.0%**	39.6%**
Supermajority vote provision	37.9%	58.5%***	24.0%***
Pre-bid poison pill	55.6%	54.7%	56.3%
Target Characteristics			
Market Capitalization ($ millions)	$330 ($2,992)	$561 ($2,275)	$280 ($3,483)
Firm age at time of bid (years)	10.1 (8.7)	9.1 (8.3)	10.2 (9.1)
Delaware corporation	52.8%	63.1%**	45.8%**
Tobin's Q (year prior to bid) minus industry median	-0.15	-0.10	-0.20
Stock return (over three years prior to bid) minus industry median	-5.14%	-5.72%	-4.86%
Leverage ratio (debt-to-equity, year prior to bid) minus industry median	0.05	0.05	0.02
CEO Characteristics			
CEO age at bid announcement	54.6 (54.6)	55.3 (55.3)	54.2 (54.2)
CEO is Chairman of the Board	60.6%	61.5%	60.0%
Board Composition			
Number of directors	8.0 (8.6)	9.0 (9.2)	7.0 (8.2)
Inside directors	26.4%	25.3%	27.4%
Outside directors	70.9%	72.2%	70.0%
Grey directors	2.7%	2.5%	2.6%
Percent with majority-outside board	83.1%	87.7%	80.0%
Share Ownership			
Percent held by CEO	1.2% (3.9%)	0.9% (3.9%)	1.2% (3.8%)
Percent held by other directors and officers	6.0% (10.8%)	6.9% (11.2%)	4.7% (10.5%)
Percent held by institutions	45.1% (51.4%)	42.7% (51.9%)	48.5% (51.1%)
Bid Strategy			
Bust-up bid	19.3%	23.1%	16.7%
Proxy fight	40.4%	33.8%	44.8%
All-cash offer	64.6%	60.0%	67.7 %
Tender offer	48.4%	40.0%*	54.2%*
Bear hug bid	41.0%	53.8%***	32.3%***
Final Bid Premium	43.4% (47.9%)	39.0% (46.1%)	45.7% (49.1%)
Bid Outcome 12 Months after Bid Announcement			
Target Remains Independent	46.6%	61.5%***	36.5%***
Target Sold to Other Bidder	28.0%	21.5%	32.3%
Bidder Acquires Target	25.5%	16.9%**	31.3%**
Bid Outcome 30 Months after Bid Announcement			
Target Remains Independent	37.3%	47.7%**	30.2%**
Target Sold to Other Bidder	35.4%	33.8%	36.5%
Hostile Bidder Acquires Target	27.3%	18.5%**	33.3%**
Bid Outcome 60 Months after Bid Announcement			
Target Remains Independent	25.5%	33.3%*	21.4%*
Target Sold to Other Bidder	44.9%	47.6%	42.9%
Hostile Bidder Acquires Target	28.6%	19.0%**	35.7%**

Table 2A: Effect of Defenses on 12-Month Likelihood of Remaining Independent

Regression estimates of the relationship between takeover defenses and hostile bid outcomes 12 months after bid announcement. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence. Dependent variable is INDEPENDENT, set to 1 if the target remains independent at the end of 12 months, and 0 if the target is acquired by the initial bidder or by a third party during this period. All models are run as logit regressions. Mature targets are defined as targets that have been public for at least five years at the time of the bid.

Model # =>	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6) Mature targets only**
Defenses						
Staggered board	0.35 (0.38)					
Governance Index		0.31 (0.12)**				
Effective staggered board			1.42 (0.43)***	1.53 (0.46)***	1.64 (0.58)***	1.28 (0.52)**
Effective annual term	0.60 (0.48)	1.02 (0.69)	1.12 (0.52)**	1.46 (0.57)**	1.80 (0.69)**	0.76 (0.62)
Fair price provision	0.07 (0.42)	-1.04 (0.69)	-0.08 (0.43)	-0.07 (0.46)	-0.29 (0.61)	-0.15 (0.50)
Supermajority vote provision	0.40 (0.42)	0.76 (0.61)	0.09 (0.43)	0.14 (0.46)	0.44 (0.62)	-0.26 (0.52)
Pre-bid poison pill	-0.45 (0.35)	-1.36 (0.53)***	-0.45 (0.36)	-0.35 (0.38)	0.06 (0.49)	-0.48 (0.45)
Target Characteristics						
Log (Size)	-0.13 (0.08)*	0.02 (0.17)	-0.18 (0.09)**	-0.28 (0.13)**	-0.27 (0.16) *	-0.12 (0.10)
Delaware incorporation (0/1)	0.30 (0.36)	-0.30 (0.58)	0.03 (0.38)	0.03 (0.41)	0.22 (0.48)	0.05 (0.43)
Stock return					0.01 (0.01)	
Tobin's Q					-0.18 (0.31)	
Leverage					-0.07 (0.27)	
Bid Strategy						
Bust-up bid					-2.01 (0.63)***	
Tender offer					-1.10 (0.49)**	
All-cash offer					-0.09 (0.50)	
Bid premium					-0.01 (0.01)	
CEO Characteristics						
CEO age >=60 (0/1)				-0.11 (0.43)	0.25 (0.53)	
Percent held by CEO				0.01 (0.04)	0.05 (0.04)	
Board Composition						
Size				0.07 (0.08)	0.10 (0.11)	
CEO is Chairman of the Board (0/1)				0.51 (0.44)	-0.07 (0.55)	
Majority-outside board? (0/1)				-0.56 (0.52)	-0.19 (0.63)	
Share Ownership						
Percent held by other D&O				0.00 (0.02)	-0.01 (0.03)	
Percent held by other >5% holders				-0.03 (0.01)**	-0.05 (0.02)***	
Pseudo R-sq	**4.6%**	**14.3%**	**9.7%**	**14.7%**	**26.6%**	**6.5%**
Number of observations	**158**	**87**	**158**	**156**	**135**	**106**

Table 2B: Effect of Defenses on 30-Month Likelihood of Remaining Independent

Regression estimates of the relationship between takeover defenses and hostile bid outcomes 30 months after bid announcement. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence. Dependent variable is INDEPENDENT, set to 1 if the target remains independent at the end of 30 months, and 0 if the target is acquired by the initial bidder or by a third party during this period. All models are run as logit regressions. Mature targets are defined as targets that have been public for at least five years at the time of the bid.

Model # =>	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6) Mature targets only**
Defenses						
Staggered board	0.21 (0.39)					
Governance Index		0.36 (0.13)***				
Effective staggered board			1.12 (0.43)***	1.24 (0.47)***	1.32 (0.58)**	0.75 (0.50)
Effective annual term	0.56 (0.48)	0.92 (0.68)	0.99 (0.51)*	1.33 (0.58)**	1.57 (0.70)**	0.41 (0.63)
Fair price provision	0.27 (0.43)	0.56 (0.69)	0.15 (0.43)	0.17 (0.47)	-0.07 (0.61)	0.04 (0.50)
Supermajority vote provision	0.19 (0.42)	0.04 (0.61)	-0.08 (0.43)	-0.02 (0.47)	0.17 (0.63)	-0.08 (0.53)
Pre-bid poison pill	-0.43 (0.36)	-1.38 (0.54)**	-0.43 (0.36)	-0.28 (0.38)	0.15 (0.48)	-0.71 (0.45)
Target Characteristics						
Log (Size)	-0.1 (0.08)	0.00 (0.17)	-0.13 (0.09)	-0.21 (0.12)*	-0.08 (0.16)	-0.03 (0.10)
Delaware incorporation (0/1)	0.02 (0.37)	-0.38 (0.60)	-0.23 (0.38)	-0.29 (0.41)	-0.21 (0.49)	-0.27 (0.44)
Stock return					0.00 (0.01)	
Tobin's Q					-0.54 (0.37)	
Leverage					-0.39 (0.26)	
Bid Strategy						
Bust-up bid					-1.78 (0.68)***	
Tender offer					-1.11 (0.50)**	
All-cash offer					0.01 (0.51)	
Bid premium					-0.00 (0.01)	
CEO Characteristics						
CEO age >=60 (0/1)				-0.49 (0.44)	-0.42 (0.53)	
Percent held by CEO				0.03 (0.03)	0.05 (0.04)	
Board Composition						
Size				0.07 (0.08)	0.07 (0.11)	
CEO is Chairman of the Board (0/1)				0.47 (0.44)	0.12 (0.55)	
Majority-outside board? (0/1)				-0.72 (0.52)	-0.69 (0.61)	
Share Ownership						
Percent held by other D&O				-0.00 (0.02)	-0.01 (0.03)	
Percent held by other >5% holders				-0.03 (0.01)**	-0.05 (0.02)**	
Pseudo R-sq	**3.1%**	**14.7%**	**6.4%**	**12.2%**	**21.8%**	**4.2%**
Number of observations	**158**	**87**	**158**	**156**	**135**	**106**

Table 2C: Effect of Defenses on 60-Month Likelihood of Remaining Independent

Regression estimates of the relationship between takeover defenses and hostile bid outcomes 60 months after bid announcement. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence. Dependent variable is INDEPENDENT, set to 1 if the target remains independent at the end of 60 months, and 0 if the target is acquired by the initial bidder or by a third party during this period. All models are run as logit regressions. Mature targets are defined as targets that have been public for at least five years at the time of the bid.

Model # =>	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6) Mature targets only**
Defenses						
Staggered board	0.30 (0.45)					
Governance Index		0.23 (0.14)				
Effective staggered board			1.10 (0.49)**	1.41 (0.56)**	1.65 (0.73)**	0.96 (0.57)*
Effective annual term	0.34 (0.58)	0.74 (0.78)	0.78 (0.63)	1.16 (0.73)	1.21 (1.01)	0.61 (0.76)
Fair price provision	-0.05 (0.49)	-0.45 (0.80)	-0.15 (0.50)	-0.13 (0.55)	-0.33 (0.73)	-0.21 (0.59)
Supermajority vote provision	0.47 (0.47)	0.15 (0.62)	0.25 (0.48)	0.23 (0.53)	0.48 (0.74)	0.01 (0.58)
Pre-bid poison pill	-0.28 (0.41)	-0.88 (0.57)	-0.27 (0.42)	-0.06 (0.45)	0.62 (0.60)	-0.30 (0.52)
Target Characteristics						
Log (Size)	-0.08 (0.10)	0.06 (0.19)	-0.11 (0.10)	-0.18 (0.15)	-0.09 (0.21)	-0.03 (0.12)
Delaware incorporation (0/1)	-0.99 (0.43) **	-0.95 (0.67)	-1.27 (0.44)***	-1.47 (0.51)***	-1.18 (0.63)*	-1.11 (0.53)**
Stock return					0.00 (0.01)	
Tobin's Q					-0.02 (0.44)	
Leverage					-0.16 (0.29)	
Bid Strategy						
Bust-up bid					-2.73 (1.15)**	
Tender offer					-1.15 (0.66)*	
All-cash offer					-0.57 (0.64)	
Bid premium					0.01 (0.01)	
CEO Characteristics						
CEO age >=60 (0/1)				-0.46 (0.51)	-0.21 (0.68)	
Percent held by CEO				0.05 (0.04)	0.06 (0.05)	
Board Composition						
Size				0.01 (0.10)	-0.02 (0.14)	
CEO is Chairman of the Board (0/1)				0.29 (0.53)	-0.21 (0.73)	
Majority-outside board? (0/1)				-0.97 (0.61)	-0.82 (0.73)	
Share Ownership						
Percent held by other D&O				-0.02 (0.02)	-0.01 (0.03)	
Percent held by other >5% holders				-0.05 (0.02)***	-0.07 (0.03)***	
Pseudo R-sq	**6.0%**	**9.1%**	**8.9%**	**17.6%**	**27.4%**	**6.7%**
Number of observations	**144**	**81**	**144**	**142**	**121**	**95**

Table 3A: Effect of Defenses on 12-Month Likelihood of Being Sold to Hostile Bidder

Regression estimates of the relationship between takeover defenses and hostile bid outcomes 12 months after bid announcement. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence. Dependent variable is COMPLETE, set to 1 if the hostile bidder wins the target by the end of 12 months, and 0 if the target either remains independent or is acquired by a third party bidder during this period. All models are run as logit regressions. Mature targets are defined as targets that have been public for at least five years at the time of the bid.

Model # =>	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6) Mature targets only**
Defenses						
Staggered board	-0.35 (0.42)					
Governance Index		-0.17 (0.12)				
Effective staggered board			-0.97 (0.47)**	-0.99 (0.48)**	-0.77 (0.57)	-1.19 (0.59)**
Effective annual term	-0.32 (0.56)	-0.15 (0.70)	-0.59 (0.57)	-0.88 (0.60)	-0.68 (0.67)	-0.58 (0.66)
Fair price provision	-0.38 (0.50)	0.09 (0.68)	-0.31 (0.50)	-0.24 (0.53)	-0.47 (0.64)	0.06 (0.57)
Supermajority vote provision	-0.26 (0.49)	-0.39 (0.63)	-0.09 (0.50)	-0.27 (0.52)	-0.10 (0.62)	-0.00 (0.58)
Pre-bid poison pill	0.54 (0.42)	0.75 (0.55)	0.54 (0.42)	0.38 (0.44)	0.01 (0.50)	0.47 (0.52)
Target Characteristics						
Log (Size)	0.22 (0.09)**	0.13 (0.17)	0.24 (0.10)**	0.24 (0.14)*	0.12 (0.18)	0.14 (0.11)
Delaware incorporation (0/1)	-0.31 (0.43)	0.57 (0.58)	-0.17 (0.44)	-0.27 (0.47)	-0.43 (0.53)	-0.18 (0.5)
Stock return					0.00 (0.01)	
Tobin's Q					0.32 (0.25)	
Leverage					-0.28 (0.32)	
Bid Strategy						
Bust-up bid					0.54 (0.58)	
Tender offer					1.36 (0.54)**	
All-cash offer					0.76 (0.56)	
Bid premium					0.01 (0.01)	
CEO Characteristics						
CEO age >=60 (0/1)				-0.35 (0.49)	-0.62 (0.57)	
Percent held by CEO				-0.01 (0.04)	-0.12 (0.08)	
Board Composition						
Size				0.01 (0.09)	0.13 (0.11)	
CEO is Chairman of the Board (0/1)				-0.26 (0.47)	0.68 (0.58)	
Majority-outside board? (0/1)				-0.1 (0.57)	-0.60 (0.66)	
Share Ownership						
Percent held by other D&O				-0.01 (0.03)	-0.01 (0.04)	
Percent held by other >5% holders				0.03 (0.01)**	0.03 (0.02)*	
Pseudo R-sq	**7.2%**	**7.6%**	**9.3%**	**13.0%**	**22.9%**	**6.5%**
Number of observations	**158**	**87**	**158**	**156**	**135**	**106**

Table 3B: Effect of Defenses on 30-Month Likelihood of Being Sold to Hostile Bidder

Regression estimates of the relationship between takeover defenses and hostile bid outcomes 30 months after bid announcement. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence. Dependent variable is COMPLETE, set to 1 if the hostile bidder wins the target by the end of 30 months, and 0 if the target either remains independent or is acquired by a third party bidder during this period. All models are run as logit regressions. Mature targets are defined as targets that have been public for at least five years at the time of the bid.

Model # =>	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6) Mature targets only**
Defenses						
Staggered board	-0.25 (0.41)					
Governance Index		-0.16 (0.12)				
Effective staggered board			-0.87 (0.46)*	-0.88 (0.48)*	-0.62 (0.57)	-1.14 (0.58)**
Effective annual term	0.07 (0.52)	0.19 (0.67)	-0.2 (0.54)	-0.50 (0.57)	-0.27 (0.65)	-0.05 (0.62)
Fair price provision	-0.28 (0.49)	-0.03 (0.66)	-0.21 (0.49)	-0.07 (0.52)	-0.29 (0.64)	0.15 (0.56)
Supermajority vote provision	-0.34 (0.48)	-0.2 (0.61)	-0.17 (0.49)	-0.38 (0.51)	-0.28 (0.62)	-0.21 (0.57)
Pre-bid poison pill	0.64 (0.41)	0.84 (0.54)	0.65 (0.42)	0.47 (0.44)	0.15 (0.50)	0.57 (0.51)
Target Characteristics						
Log (Size)	0.24 (0.09)**	0.22 (0.17)	0.25 (0.1)***	0.33 (0.14)**	0.23 (0.19)	0.13 (0.11)
Delaware incorporation (0/1)	-0.32 (0.42)	0.55 (0.57)	-0.19 (0.43)	-0.30 (0.46)	-0.44 (0.52)	-0.08 (0.49)
Stock return					0.01 (0.01)	
Tobin's Q					0.34 (0.26)	
Leverage					-0.36 (0.34)	
Bid Strategy						
Bust-up bid					0.42 (0.59)	
Tender offer					1.35 (0.54)**	
All-cash offer					0.89 (0.56)	
Bid premium					0.01 (0.01)	
CEO Characteristics						
CEO age >=60 (0/1)				-0.38 (0.50)	-0.67 (0.58)	
Percent held by CEO				-0.01 (0.04)	-0.11 (0.08)	
Board Composition						
Size				-0.05 (0.09)	0.08 (0.11)	
CEO is Chairman of the Board (0/1)				-0.50 (0.47)	0.45 (0.58)	
Majority-outside board? (0/1)				0.01 (0.57)	-0.47 (0.68)	
Share Ownership						
Percent held by other D&O				-0.01 (0.03)	-0.00 (0.04)	
Percent held by other >5% holders				0.03 (0.01)**	0.04 (0.02)**	
Pseudo R-sq	**8.2%**	**8.2%**	**10.0%**	**15.2%**	**25.7%**	**7.6%**
Number of observations	**158**	**87**	**158**	**156**	**135**	**106**

Table 3C: Effect of Defenses on 60-Month Likelihood of Being Sold to Hostile Bidder

Regression estimates of the relationship between takeover defenses and hostile bid outcomes 60 months after bid announcement. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence. Dependent variable is COMPLETE, set to 1 if the hostile bidder wins the target by the end of 60 months, and 0 if the target either remains independent or is acquired by a third party bidder during this period. All models are run as logit regressions. Mature targets are defined as targets that have been public for at least five years at the time of the bid.

Model # =>	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6) Mature targets only**
Defenses						
Staggered board	-0.47 (0.43)					
Governance Index		-0.12 (0.12)				
Effective staggered board			-0.98 (0.47)**	-0.95 (0.49)*	-0.57 (0.58)	-1.36 (0.60)**
Effective annual term	0.14 (0.59)***	0.21 (0.75)	-0.15 (0.61)	-0.38 (0.65)	0.00 (0.76)	-0.25 (0.71)
Fair price provision	-0.25 (0.51)	-0.28 (0.72)	-0.17 (0.52)	-0.02 (0.55)	-0.08 (0.69)	0.26 (0.61)
Supermajority vote provision	-0.37 (0.48)	-0.17 (0.59)	-0.22 (0.49)	-0.39 (0.51)	-0.37 (0.64)	-0.21 (0.58)
Pre-bid poison pill	0.43 (0.42)	0.50 (0.53)	0.41 (0.42)	0.26 (0.45)	-0.02 (0.50)	0.21 (0.53)
Target Characteristics						
Log (Size)	0.25 (0.10)**	0.21 (0.18)	0.28 (0.10)***	0.34 (0.15)**	0.25 (0.20)	0.15 (0.12)
Delaware incorporation (0/1)	-0.23 (0.45)	0.39 (0.61)	-0.05 (0.47)	-0.17 (0.50)	-0.30 (0.57)	0.07 (0.53)
Stock return					0.01 (0.01)	
Tobin's Q					0.31 (0.27)	
Leverage					-0.29 (0.34)	
Bid Strategy						
Bust-up bid					0.33 (0.62)	
Tender offer					1.16 (0.54)**	
All-cash offer					0.94 (0.57)	
Bid premium					0.01 (0.01)	
CEO Characteristics						
CEO age >=60 (0/1)				-0.31 (0.51)	-0.53 (0.59)	
Percent held by CEO				0.01 (0.04)	-0.09 (0.08)	
Board Composition						
Size				-0.06 (0.09)	0.06 (0.12)	
CEO is Chairman of the Board (0/1)				-0.52 (0.49)	0.40 (0.59)	
Majority-outside board? (0/1)				-0.20 (0.57)	-0.76 (0.69)	
Share Ownership						
Percent held by other D&O				-0.02 (0.03)	-0.02 (0.04)	
Percent held by other >5% holders				0.02 (0.01)*	0.03 (0.02)*	
Pseudo R-sq	**8.0%**	**6.1%**	**9.9%**	**14.4%**	**23.9%**	**8.0%**
Number of observations	**144**	**81**	**144**	**142**	**121**	**95**

Table 4A: Effect of Defenses on Short-Run Likelihood of Being Sold to Other Bidder, for Targets that Are Sold

Regression estimates of the relationship between takeover defenses and hostile bid outcomes 12 months after bid announcement. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence. Dependent variable is STOB (sold to other bidder), set to 1 if the target is sold to the initial bidder, white knight, or third-party bidder; and 0 if the target is sold to the hostile bidder. All models are run as logit regressions. Mature targets are defined as targets that have been public for at least five years at the time of the bid.

Model # =>	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6) Mature targets only**
Defenses						
Staggered board	0.17 (0.49)					
Governance Index		-0.09 (0.19)				
Effective staggered board			0.27 (0.56)	0.44 (0.60)	-0.26 (0.74)	0.67 (0.68)
Effective annual term	-0.63 (0.71)	-1.08 (1.07)	-0.56 (0.73)	-0.27 (0.79)	-1.12 (1.02)	-0.18 (0.82)
Fair price provision	0.38 (0.61)	1.29 (1.05)	0.38 (0.61)	0.06 (0.67)	0.70 (0.87)	-0.11 (0.69)
Supermajority vote provision	0.25 (0.61)	-0.07 (0.79)	0.23 (0.62)	0.43 (0.65)	-0.04 (0.81)	0.43 (0.70)
Pre-bid poison pill	-0.27 (0.52)	0.20 (0.77)	-0.26 (0.52)	-0.04 (0.57)	0.43 (0.68)	-0.34 (0.65)
Target Characteristics						
Log (Size)	-0.28 (0.14)**	-0.23 (0.24)	-0.29 (0.14)**	-0.21 (0.19)	-0.24 (0.26)	-0.15 (0.16)
Delaware incorporation (0/1)	0.29 (0.52)	-0.28 (0.79)	0.26 (0.52)	0.36 (0.55)	0.45 (0.70)	0.23 (0.58)
Stock return					-0.01 (0.02)	
Tobin's Q					-0.20 (0.28)	
Leverage					0.71 (0.45)	
Bid Strategy						
Bust-up bid					0.54 (0.70)	
Tender offer					-1.30 (0.73)*	
All-cash offer					-0.67 (0.71)	
Bid premium					-0.00 (0.01)	
CEO Characteristics						
CEO age >=60 (0/1)				0.77 (0.62)	1.11 (0.80)	
Percent held by CEO				0.00 (0.05)	0.16 (0.11)	
Board Composition						
Size				-0.15 (0.13)	-0.32 (0.18)*	
CEO is Chairman of the Board (0/1)				-0.23 (0.59)	-1.23 (0.76)	
Majority-outside board? (0/1)				0.78 (0.76)	1.47 (1.00)	
Share Ownership						
Percent held by other D&O				0.01 (0.03)	0.00 (0.04)	
Percent held by other >5% holders				-0.02 (0.02)	-0.03 (0.02)	
Pseudo R-sq	**6.5%**	**9.4%**	**6.6%**	**9.7%**	**23.0%**	**3.9%**
Number of observations	**83**	**48**	**83**	**81**	**73**	**56**

Table 4B: Effect of Defenses on 30-Month Likelihood of Being Sold to Other Bidder, for Targets that Are Sold

Regression estimates of the relationship between takeover defenses and hostile bid outcomes 30 months after bid announcement. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence. Dependent variable is STOB (sold to other bidder), set to 1 if the target is sold to the initial bidder, white knight, or third-party bidder; and 0 if the target is sold to the hostile bidder. All models are run as logit regressions. Mature targets are defined as targets that have been public for at least five years at the time of the bid.

Model # =>	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6) Mature targets only**
Defenses						
Staggered board	0.26 (0.48)					
Governance Index		0.01 (0.17)				
Effective staggered board			0.48 (0.54)	0.55 (0.57)	-0.07 (0.70)	0.97 (0.65)
Effective annual term	-1.12 (0.68)*	-1.44 (1.01)	-0.98 (0.70)	-0.58 (0.76)	-1.40 (1.02)	-0.60 (0.78)
Fair price provision	0.10 (0.59)	0.61 (0.89)	0.08 (0.59)	-0.26 (0.64)	0.42 (0.82)	-0.37 (0.67)
Supermajority vote provision	0.58 (0.58)	0.39 (0.70)	0.52 (0.58)	0.64 (0.61)	0.36 (0.75)	0.62 (0.66)
Pre-bid poison pill	-0.43 (0.48)	-0.22 (0.66)	-0.43 (0.48)	-0.28 (0.52)	0.05 (0.61)	-0.35 (0.60)
Target Characteristics						
Log (Size)	-0.33 (0.13)**	-0.38 (0.24)	-0.35 (0.13)***	-0.35 (0.17)**	-0.30 (0.23)	-0.22 (0.15)
Delaware incorporation (0/1)	0.46 (0.50)	-0.15 (0.71)	0.40 (0.51)	0.41 (0.53)	0.53 (0.65)	0.33 (0.56)
Stock return					-0.02 (0.02)	
Tobin's Q					-0.21 (0.28)	
Leverage					0.70 (0.42)*	
Bid Strategy						
Bust-up bid					0.46 (0.67)	
Tender offer					-1.32 (0.72)*	
All-cash offer					-0.75 (0.68)	
Bid premium					-0.01 (0.01)	
CEO Characteristics						
CEO age >=60 (0/1)				0.91 (0.59)	1.35 (0.74)*	
Percent held by CEO				-0.00 (0.05)	0.16 (0.11)	
Board Composition						
Size				-0.06 (0.11)	-0.24 (0.15)	
CEO is Chairman of the Board (0/1)				0.06 (0.56)	-1.15 (0.74)	
Majority-outside board? (0/1)				0.62 (0.73)	1.52 (1.01)	
Share Ownership						
Percent held by other D&O				0.01 (0.03)	0.01 (0.05)	
Percent held by other >5% holders				-0.02 (0.02)	-0.03 (0.02)	
Pseudo R-sq	**11.3%**	**10.2%**	**11.6%**	**15.7**	**29.8%**	**9.5%**
Number of observations	**98**	**56**	**98**	**96**	**87**	**66**

Table 4C: Effect of Defenses on 60-Month Likelihood of Being Sold to Other Bidder, for Targets that Are Sold

Regression estimates of the relationship between takeover defenses and hostile bid outcomes 60 months after bid announcement. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence. Dependent variable is STOB (sold to other bidder), set to 1 if the target is sold to the initial bidder, white knight, or third-party bidder; and 0 if the target is sold to the hostile bidder. All models are run as logit regressions. Mature targets are defined as targets that have been public for at least five years at the time of the bid.

Model # =>	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6) Mature targets only**
Defenses						
Staggered board	0.34 (0.47)					
Governance Index		0.06 (0.14)				
Effective staggered board			0.67 (0.53)	0.76 (0.56)	0.17 (0.67)	1.15 (0.66)*
Effective annual term	-0.69 (0.67)	-0.78 (0.89)	-0.48 (0.70)	-0.10 (0.74)	-0.33 (0.88)	-0.20 (0.83)
Fair price provision	0.11 (0.59)	0.40 (0.86)	0.03 (0.59)	-0.23 (0.63)	-0.12 (0.79)	-0.48 (0.69)
Supermajority vote provision	0.48 (0.57)	0.29 (0.66)	0.39 (0.57)	0.55 (0.59)	0.58 (0.72)	0.47 (0.66)
Pre-bid poison pill	-0.24 (0.47)	-0.06 (0.62)	-0.22 (0.47)	-0.11 (0.50)	0.11 (0.56)	-0.16 (0.58)
Target Characteristics						
Log (Size)	-0.33 (0.13)***	-0.31 (0.21)	-0.35 (0.13)***	-0.35 (0.17)**	-0.31 (0.23)	-0.20 (0.15)
Delaware incorporation (0/1)	0.68 (0.49)*	0.08 (0.71)	0.54 (0.51)	0.68 (0.55)	0.70 (0.63)	0.38 (0.57)
Stock return					-0.01 (0.01)	
Tobin's Q					-0.27 (0.28)	
Leverage					0.34 (0.36)	
Bid Strategy						
Bust-up bid					0.15 (0.65)	
Tender offer					-0.88 (0.61)	
All-cash offer					-0.61 (0.65)	
Bid premium					-0.01 (0.01)	
CEO Characteristics						
CEO age >=60 (0/1)				0.82 (0.58)	0.87 (0.66)	
Percent held by CEO				-0.02 (0.05)	0.09 (0.10)	
Board Composition						
Size				-0.01 (0.11)	-0.10 (0.14)	
CEO is Chairman of the Board (0/1)				0.17 (0.55)	-0.68 (0.65)	
Majority-outside board? (0/1)				0.49 (0.64)	1.17 (0.82)	
Share Ownership						
Percent held by other D&O				0.02 (0.03)	0.02 (0.04)	
Percent held by other >5% holders				-0.01 (0.01)	-0.02 (0.02)	
Pseudo R-sq	**10.5%**	**5.7%**	**11.3%**	**15.3%**	**24.0%**	**9.6%**
Number of observations	**105**	**59**	**105**	**103**	**91**	**68**

Table 5: Effect of Bid Outcomes and Defenses on Target Shareholder Returns

This chart constructs portfolios of targets according to the short-run outcome of the bid (12 months after bid announcement) and whether the target has an ESB defense. Abnormal returns are calculated as daily target shareholder returns minus the CRSP equal-weighted index. Daily abnormal returns are then cumulated over the period [-60, +1250 days] to form buy-and-hold portfolios. Returns from targets that are sold are assumed to be re-invested in the CRSP equal-weighted index.

		Cumulative abnormal returns from 60 days prior to bid announcement		
	Bid Outcome 12 months after bid announcement:	**12 months**	**30 months**	**60 months**
All Targets	Remained independent	5.6%	23.1%	3.6%
	Sold to hostile bidder	33.9	32.9	34.5
	Sold to white knight	35.1	33.6	33.2
	ALL	**20.6**	**29.0**	**19.6**
ESB Targets	Remained independent	11.1	9.3	-5.3
	Sold to hostile bidder	24.0	25.6	25.6
	Sold to white knight	33.5	27.8	26.6
	ALL	**18.2**	**16.4**	**6.5**
Non-ESB Targets	Remained independent	-1.5	38.5	11.7
	Sold to hostile bidder	37.2	35.0	37.2
	Sold to white knight	35.4	36.1	36.1
	ALL	**22.0**	**38.2**	**29.1**
Δ (= ESB targets – non-ESB targets)	Remained independent	12.6	-29.2	-17.0
	Sold to hostile bidder	-13.2	-10.5	-11.6
	Sold to white knight	-1.9	-8.3	-9.5
	ALL	**-3.8**	**-21.8**	**-22.6**

Board Silly

By Guhan Subramanian

CAMBRIDGE, Mass.

SLOWLY but surely, corporate America is giving up the staggered board.

Some businesses are responding to corporate governance rating agencies, which penalize companies that do not elect all of the directors each year. Some are responding to shareholder resolutions or to behind-the-scenes pressure from large shareholders. Georgeson Shareholder Services reports there were more than 90 resolutions among S.&P. 1500 companies in 2006 to abolish staggered boards, half proposed by the companies and half by shareholders. More are expected in the 2007 proxy season, and some corporate governance experts are urging companies not to fight the issue.

This would be a mistake. What shareholders object to is not staggered boards themselves, but how staggered boards block takeovers.

Let me explain. Most corporations have adopted or can easily adopt a "poison pill," a takeover defense that forbids a hostile bidder from directly purchasing a controlling interest in a target company. If the target has a staggered board, a bidder must win two proxy contests, conducted more than a year apart, to gain control of the board and jettison the poison pill. No bidder in the modern era of takeovers has had the patience and persistence to do this, so the staggered board combined with the pill presents a potent roadblock to shareholders who want to accept a hostile offer.

But there is a way to give shareholders exactly what they want without eliminating the staggered board: shift the staggered board from the charter to the bylaws. That would allow a hostile bidder to dismantle the staggered board through a bylaw amendment and put its offer to shareholders in a single proxy contest. For the 99.5 percent of United States public companies that are not subject to a hostile takeover bid in a given year, directors would continue to be elected to staggered, three-year terms.

Staggered boards offer many benefits over unitary boards: greater stability, improved independence of outside directors and a longer-term perspective — things shareholders should want, too. A bylaws-based staggered board would provide directors with three-year terms but allow shareholders to "recall" them in the event of a hostile takeover bid that a majority of shareholders want to accept. This is the norm in many European countries, where directors can be elected to six-year terms but shareholders retain the right to remove them from office at any time.

> Blocking takeovers at shareholders' expense.

Skeptics might contend that unitary boards are pretty stable too, because the vast majority of board elections are uncontested. But because companies are increasingly requiring that board candidates win a majority of votes cast, directors would value the right to face election only every three years rather than every year.

The stakes are high. If directors surrender on the question of staggered boards, we risk further short-termism in boardrooms and no internal counterweight to managers focused on quarterly earnings. But if they hold firm, approximately half of the nation's public companies will remain heavily insulated from the socially desirable "disciplinary" effect provided by the threat of a hostile takeover. Rather than forcing an all-or-nothing showdown, boards should respond to shareholder demands to end staggering with the counter-offer of a bylaws-based staggered board.

Shareholders rightly decided that they did not like the anti-takeover effect of staggered boards, but their campaign unnecessarily casts the baby out with the bathwater. A bylaws-based staggered board meets the interests of all sides. □

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