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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. managers' ability to block an offer that shareholders view as attractive depends on whether managers of U.S. firms are 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 a considerable effect on bid outcomes and shareholder returns using a new database of all hostile takeover bids for U.S. targets in the period 1996-2002. We find that an ESB substantially increases the odds that a takeover target will remain independent. Other variables commonly thought to influence the outcome 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 on outcomes 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. Finally, we find that having an ESB reduces the returns to target shareholders, in both the short run (12 months) and the long run (30 months), by more than 20%.

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1. Introduction

The development and acceptance of the poison pill has transformed the market for control of U.S. corporations with dispersed ownership, providing incumbents with a powerful weapon to defend against unwanted offers. With incumbents shielded by a poison pill (or the threat of one), a hostile bidder must gain a majority of seats on the target's board in order to remove the pill and make the acquisition possible. As a result, the strength of defenses depends on how quickly and easily shareholders can replace the board and thus, in turn, on whether the target has an effective staggered board (ESB).

What impact do modern takeover defenses have on the outcome of hostile bids? Do incumbent 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 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 focused on the effects of pre-bid poison pills, not taking into account the critical interaction 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 period 1996-2002. We have examined the charter and bylaws of each target to determine whether it had an ESB. Our database also includes other target defenses, as well as other variables that could potentially influence bid outcomes, enabling a full investigation of the effects of takeover defenses on bid outcomes.

Our analysis yields three main findings. First, effective staggered boards have a strong effect on the outcome of takeover contests. Specifically, we find that an ESB decreases the odds that a hostile bidder will gain control within 12 months following the bid from 32% to 16%, and it increases the odds of the target's remaining independent during this period from 31% to 64%. An ESB has similarly dramatic effects on the odds of a target's still remaining independent 30 months after receiving a hostile 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 45% higher buy-and-hold abnormal returns in the 12 months after the announcement of a hostile takeover bid, and 60% higher returns in the 30 months following the bid announcement, relative to shareholders of targets that remain independent.

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. Because targets that remain independent do not, on average, achieve the same returns for shareholders as targets that sell to either the hostile bidder or to the white knight, and because ESB targets that sell do not extract higher premiums, we find that ESBs reduce target shareholder returns, both in the short run and in the long run, by more than 20%.

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 recent evidence of lower shareholder returns and market valuations for companies with more antitakeover provisions (Gompers, Ishii & Metrick (2003)). 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]

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. Part 4

[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). We have since then expanded our data set by adding more bids and more controls, with some changes in findings, but our general qualitative results remain as in our earlier paper on which our policy proposals relied.

presents our findings concerning the effects of defenses on the 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. The terms of poison pill rights make the acquisition of control, and suffering the resulting dilution, a losing proposition for the bidder as a practical matter. Thus, as long as the pill remains in place, no other defensive measures are necessary because the bid is completely blocked.

The only hope for a hostile bidder 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

[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

to permit a 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 how strong defenses are in any given company.

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), 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 a period that is at least a year and might exceed two years. Furthermore, making an irrevocable offer that would be open for such a long period is quite costly to the bidder, and without making such an offer shareholders would be reluctant to vote for the bidder in the first election (Bebchuk and Hart, 2002). Indeed, our data indicates that no hostile bidder since 1996 has ever persisted long enough against determined target resistance to win board control against

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1980s and by the Delaware courts in the late 1990s, although these pills have been legalized in Pennsylvania, Maryland, Virginia, and Georgia.

[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 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 2002a, Bebchuk & Cohen 2002), 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.

ESB 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 the 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 could redeem the pill and the bidder could 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?

[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 vote. 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 much weaker effect (or even no effect) on the identity of the buyer that will acquire the target if it does not remain independent. Under the famous *Time Warner* case, as a target board has the legal ability to stick to independence and "Just Say No" to a hostile takeover bid. Takeover defenses determine how long a target board would be able to do so against efforts to remove it. However, when a target board seeks not to remain independent

[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.").

but rather to facilitate an acquisition by a friendly bidder, defensive tactics would be less helpful to achieving this objective.

To begin, 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 is subject to duties to achieve the highest short-term value reasonably obtainable for shareholders (Coates & Subramanian 2000). In such a case, 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. In addition, even when the firm is not subject to *Revlon* duties, for other types of sales, targets must receive some form of shareholder consent (in the form of votes or tenders), and shareholders might well be reluctant do so in the presence of a higher offer from another bidder. For these reason, we expect that when the target board elects to relinquish independence, contests between a hostile bidder and a friendly bidder would be mainly determined by how their offers compare, not by what defenses from any acquisition the target has.

(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. In response, the analysis of opponents of defenses have suggested, as a theoretical matter, it is not clear that defenses can be expected to produce higher premia (Bebchuk 2002; Subramanian, 2003b). Even with an EAT or NMT, management has significant bargaining because its opposition can cause some delay and also make shareholders reluctant to vote for the offer unless a high premium is achieved. Furthermore, while stronger defenses might give management more power, it might use this power not to raise premia but rather to extract private benefits for itself.[7]

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

[7] This argument receives some support from Hartzell, Ofek & Yermack (2000) and Wulf (2002), who report that, in friendly transactions, managers negotiate a lower premium for their shareholders if they receive private benefits in the takeover.

Supporters of defenses that enable management to block an offer that shareholders find attractive (e.g., Lipton 2002) argue that they enhance the wealth of target shareholders both 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 management to block an offer 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 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

While financial economists have produced an impressive body of empirical work on takeovers (see Andrade, Mitchell, and Stafford 2001 for a recent review and Brickley, Jarrell, and Netter 1988 for a survey of earlier work), prior work has not identified the effects of modern takeover defenses on the outcome of hostile bids. In examining bid outcomes, the literature has focused on one particular type of defense, 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. To begin, 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. Furthermore, as explained, the power to defend a pill depends on the charter provisions

determining whether the company is ESB, EAT, or NMT, and the pill studies did not take into account the presence of staggered boards and other relevant charter an bylaws arrangements.[8]

There is also little evidence on the effects of bid outcomes and takeover defenses on shareholder returns. Several studies, using different time periods during the 1980s and 1990s, report that targets with poison pills receive higher premia than targets without poison pills (Georgeson (1987), Margotta (1989), J.P. Morgan (1995), and Comment & Schwert (1995)). These studies did not attempt to distinguish between hostile and friendly bids. Furthermore, they are subject to the problem that all takeover transactions occur in the "shadow" of a poison pill, whether or not the target installed one formally, and no study examined the effects of structural defenses such as staggered boards on premia.

Finally, some early studies examined the returns to target that remained independent. Lipton (1979) and Gilson (1981), examining a sample of 36 hostile takeover targets from 1973-79, arrived at opposite conclusions on whether target shareholders benefited from the defeat of hostile bids, but neither adjusted for market or industry movements. 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. However, 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, these studies focused on the pre-pill era, which is very different from the modern takeover landscape.

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 were announced and resolved between January 1996 and December 2002 (n=112). We begin

[8] The one study that paid attention to the staggered board (without distinguishing between staggered boards that are effective and ineffective) was Pound (1987). While Pound found that staggered boards increased the odds of remaining independence, his findings, which are based on the pre-pill period of 1973-79, are of limited relevance to the post-pill takeover marketplace.

our sample window in 1996; the legal rules providing incumbents with their current discretion to maintain poison pill indefinitely have developed over time and by 1996 were firmly in place (Subramanian 2004). Targets with a controlling shareholder (including dual class structures with a controlling shareholder) and real estate investment trusts (REITs) are excluded.[9]

Information on target defenses was 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] Finally, 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 112 targets overall, divided into ESB targets (45% of the sample) and non-ESB targets (55% of the sample). The median target in our sample has a market capitalization of approximately $500 million. ESB targets have a higher median market capitalization ($664 million versus $330 million for non-ESB targets), but a (slightly) lower mean market capitalization ($2,760 versus $3,187). These results are consistent with the under-representation of staggered boards among very large firms (Bebchuk, Coates & Subramanian 2002a). Almost half (47%) 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, 60% of targets overall have staggered boards. Of the staggered boards, 25% (17 out of 67) turn out be ineffective, leaving us with 50 ESB targets.[13] ESB targets have higher incidence of supermajority vote provisions (66% for ESB targets versus 29% for non-ESB targets), consistent with Gompers, Ishii & Metrick (2003), who find that takeover defenses tend to cluster by company. ESB targets have only slightly greater incidence of fair price provisions or pre-bid poison pills. However, as one of us has argued in prior work, and most practitioners generally accept, supermajority vote provisions and fair price provisions are dominated by the pill (Coates 2000). Thus, this clustering should be largely irrelevant in determining the actual defensive posture of firms, consistent with the regressions results reported below.

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 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.

[13] Among these 17 targets, 6 had staggered boards that were established in the bylaws; 5 permitted "board packing" by not specifying the number of directors in the charter; and 6 permitted removal of directors without cause.

Bidders do not seem to make more attractive offers against ESB targets: the incidence of all-cash bids is 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 lower against ESB targets at 90% confidence. These univariate results are inconsistent with the view that ESBs produce higher premia due to the target's greater bargaining power.

Target boards are made up of 65% 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.

Examining bid outcomes in the short-run (12 months after bid announcement), Table 1 reports that the initial bidder acquired the target in 25% of cases, the target was sold to a white knight in 30% of cases, and the target remained independent in the remaining 45% of cases.[15] Dividing the sample according to whether the target has an ESB reveals a striking difference in success rates: 64% of ESB targets in our sample remained independent 12 months after the announcement of the bid, compared to 31% of non-ESB targets. Conversely, 16% of initial bidders are successful against ESB targets, compared to 32% of bidders against non-ESB targets. These substantial differences in target independence rates and in initial bidder success rates continue to hold in the long run (30 months after bid announcement). 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.

[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, however, 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. The Effect of Defenses on Bid Outcomes

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 30-six 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 (as defined in Gompers, Ishii & Metrick (2003)) in the fiscal year prior to the bid, divided by 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 large (>5%) non-institutional shareholders. The hypothesis is that greater share ownership by directors other than the CEO or 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 under "*Revlon* duties" to achieve the highest short-term value reasonably obtainable for

[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., 2003 WL 58969 (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 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.

shareholders (Coates & Subramanian 2003). 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 characteristics, 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 and 2B report short-run and long-run models estimating the likelihood of remaining independent.

[insert Tables 2A and 2B about here]

Tables 2A and 2B indicate that effective staggered boards have a strong impact on independence rates, both in the short-run and in the long-run, which are statistically significant at 99% confidence. The coefficient for EAT targets is positive in all but one model, generally consistent with the possibility of some antitakeover influence, but it is statistically insignificant in all models. As discussed earlier, ESB create 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 giving the ESB its antitakeover potency.

Column (3) of Tables 2A and 2B indicate that staggered boards (SB's) have no statistically significant impact on independence rates, either in the short-run or the long-run. 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.

Pre-bid poison pills are not correlated with higher likelihood of independence, at 95% confidence, in any regression.[18] In the one model in which the poison pill coefficient is

[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.

statistically significant at 90% confidence (Model (1) of Table 2B), the 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).

In Model (3) of Tables 2A and 2B 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 the short-run at 99% confidence and in the long-run at 90% confidence. 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. Model (3) 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 coefficients on target size suggest that however difficult large bids may be to finance is well understood by bidders.

The coefficient for Delaware incorporation is negative but not statistically significant in any model, consistent with evidence that Delaware firms do not have higher Tobin's Q than non-Delaware firms in the period studied (Subramanian 2004, Bebchuk and Cohen 2003). We thus do not find evidence in supports of the view that Delaware law facilitates takeovers more than the corporate law of other states (Daines 2001).

Among CEO characteristics, a CEO who is closer to retirement is more likely to sell, at 90% confidence in the short run and 95% confidence in the long run, providing some support for the view that the entrenchment motive is weaker for such CEOs. Likelihood of remaining independent in the long run is positively correlated with the CEO's stock ownership, suggesting that the entrenching effect of CEO ownership dominates the sale-incentive in hostile bids.

Board composition and other share ownership variables are generally not significant, in both the short run and the long run. The coefficient of having a majority of independent directors

is negative in all regressions, consistent with the view that independent directors place limits on insiders' tendency to remain independent, but the effect is not statistically significant. In unreported regressions we include the number of large shareholders and the number of institutional investors, to test the hypothesis that it is the number of these potentially powerful investors, and not just the size of the block that they collectively hold, that determines the amount of pressure that is exerted on the target board to sell, but do not find evidence to support this hypothesis.[19]

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

Tables 3A and 3B report results from outcome models using COMPLETION as the dependent variable, set to 1 if the hostile bidder wins the targets by the end of the specified time window.[20]

[insert Tables 3A and 3B about here]

Consistent with the findings from Table 2, Tables 3A and 3B indicates that an ESB is negatively correlated with success for the hostile bidder, at 95% confidence in the short-run and 90% confidence in the long-run. Bid completion for the hostile bidder is also positively correlated with size, consistent with the hypothesis that larger hostile bid targets receive greater

[19] One arbitrageur, who runs the trading desk at a major New York City investment bank, explained to us that he looks at the target's defenses but does not believe that these defenses have very much impact on outcomes. In his view, an ESB will not be effective against a determined hostile bidder because the target's board will cave in after the first proxy contest because the dissident board members will make it "very uncomfortable" for the incumbents. In reality, however, two of the three target boards that have been faced with this situation since 1995 (Circon and Wallace Computer) did not concede and eventually persevered against the hostile bidder, and the third (Younkers) also did not end up in the first bidder's hands. Subramanian (2004); Hall, Rose & Subramanian (2001).

[20] We define bid completion as either the bidder gaining control of the target's board or the bidder gaining approval from the target's board. In the pill era, no bidder was able to buy a majority of the target's shares without satisfying one of these two conditions first. In no case did a bid that gained board approval then fail for other reasons (e.g., lack of shareholder approval, regulatory obstacles). Put differently, every bid that satisfied one of our two conditions for completion was subsequently closed by the bidder.

public scrutiny and institutional pressure which in turn may put more pressure on the target board to sell.

Model (3) of Tables 3A and 3B show that bid premiums are statistically significant and positively correlated with bid completion, even though Table 2 shows that bid premiums are not statistically significant in predicting independence. One intuitive way to reconcile these findings is that a higher premium hostile bid shifts the mix of completed deals more toward the hostile bidder (away from potential white knights), but has no influence on the target board's overall ability to resist any type of sale. This conclusion is consistent with the evidence presented in Tables 4A and 4B, discussed below. No other variables, including the defense variables, are statistically significant at 90% confidence in predicting the success of the hostile bidder, in either the short run or the long run.

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 targets that are acquired in the short-run (n=61) and in the long-run (n=71). In the short run, 28 targets are acquired by the hostile bidder, and 33 by the friendly bidder; in the long run, 30 targets are acquired by the hostile bidder, and 41 by the friendly bidder. Regression results are reported in Tables 4A and 4B.

[insert Tables 4A and 4B about here]

Tables 4A and 4B both show that no takeover defenses, including the ESB defense, are correlated with bid outcome conditional on a sale. The only variables that are statistically significant, at 95% confidence, in predicting the bid outcome between a friendly and a hostile bidder are ALLCASH and PREMIUM. Consistent with the findings from Table 3, the more attractive the hostile bid (in the form of higher premium or all-cash structure) the more likely the hostile bidder will win.

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; the resolution of bidding contests between hostile bidders and friendly ones depends not on takeover defenses but on how the two bids compare. 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.

5. The Effect of Defenses on Target Shareholder Returns

We now turn to an analysis of the wealth effects of defenses. We use an industry-adjusted model and the Fama-French three-factor model (Fama & French 1992) to predict abnormal returns. The expected return in the industry-adjusted model is R_{it}, where R_{it} is the monthly return inclusive of dividends for industry *i* (using the Fama-French 48-industry classification system) in month *t*.

The expected return in the Fama-French three-factor model is:

$$E(R_{ft}) = R_{ft} + \beta_{k1} [R_{mt} - R_{ft}] + \beta_{k2} [HmL_t] + \beta_{k3} [SmB_t]$$

where R_{ft} is the one-month T-bill return, used as a proxy for the risk-free rate; R_{mt} is the equal-weighted market return, including dividends, for month *t*; $\beta_{k1,}$ $\beta_{k2,}$ and β_{k3} are estimated for each firm *k* using monthly observations from the window [-30, -3] relative to announcement of the hostile takeover bid; HmL_t is the high-minus-low book-to-market portfolio return in month *t*; and SmB_t is the small-minus-big size portfolio in month *t*.

Using both of these models, we cumulate monthly returns over the period [-1, 12] and [-1, 30] for each target in our sample. Because cumulative abnormal returns (CAR) models introduce large errors for event windows as long as ours (Barber & Lyons 1997), we calculate buy-and-hold abnormal returns (BHAR). The return on the BHAR portfolio for a given firm *k* between month 0 and month *t* is calculated as:

$$BHAR_{kt} = \prod_{t=1}^{t} [1 + R_{kt}] - \prod_{t=1}^{t} [1 + E(R_{kt})]$$

where R_{kt} is the actual return to firm *k* in month *t*, including dividends, and $E(R_{kt})$ is the expected return as estimated using each of the two models above. Out of our initial sample of 112 targets,

seven do not have stock price information in the CRSP database and are therefore omitted from the results reported in this Part.

5.1. Effect of outcomes

We begin with the influence of outcomes on target shareholder returns. To test the hypothesis that bid outcomes influence shareholder returns, we include two dummy variables to represent selling to a white knight and selling to an initial bidder (baseline case is remaining independent). In the baseline model, we use the same controls as in Model (2) of Tables 2-4. In an extension to the baseline model, we expand the set of controls to include the variables in Model (3) of Tables 2-4. In particular, the model extensions include the premium offered by the hostile bidder as an independent variable, to control for the finding from Table 3 that high premium offers are more likely to succeed. In the extreme, if all high premium offers were successful and all low premium offers were rejected, then targets that remained independent might suffer relative to targets that sold for reasons that were entirely outside the control of the target managers. Including bid premium as an independent variable, therefore, controls for the "hand" that the bidder deals to the target board.

Because of the high variance in returns, all regressions are run as robust regressions. Returns are calculated relative to one month prior to bid announcement. The results are reported in Tables 5A and 5B.

[insert Tables 5A and 5B about here]

Column (1) of Table 5 reports the results using industry-adjusted returns as the dependent variable, in which the target's industry is defined according to the Fama-French 48-industry classification of 4-digit SIC codes. Column (2) reports results using Fama-French buy-and-hold returns as the dependent variable, with reinvestment in the same Fama-French portfolio. Columns (3) and (4) report results from the industry-adjusted model and the Fama-French model, respectively, including interaction effects between ESBs and bid outcomes. Columns (5) and (6) report results from the industry-adjusted model and the Fama-French model using the full set of controls.

All models show a large and highly significant positive effect on target shareholder returns from selling to a white knight or selling to an initial bidder, increasing slightly with the

length of the time window. Taking the average across all six models, selling to a white knight generates 49% higher BHAR's than remaining independent, and selling to an initial bidder generates 45% higher abnormal returns in the 12 months after the announcement of the hostile bid. When the time window is extends to 30 months, average abnormal returns are 65% and 57%, respectively. These findings are directionally consistent with the view that white knights generally make higher bids than the hostile bidder. More importantly, these findings are inconsistent with the hypothesis that remaining independent yields the same returns as selling to an initial bidder or selling to a white knight.

Columns (3) and (4) introduce interactions between the ESB dummy variable and bid outcomes, to test the hypothesis that the relationship between bid outcomes and shareholder returns is different between ESB targets and non-ESB targets. Specifically, ESB targets might generate higher returns in the case of sale because of their potentially greater bargaining power against the hostile bidder. However, Columns (3) and (4) show no statistically significant difference between ESB targets and non-ESB targets for any of the three bid outcome categories, in either of the time windows reported. Thus, the evidence does not support the hypothesis that defenses enables targets to extract higher premia.

Examining control variables, larger firms have lower abnormal returns in the long run, but no other controls are statistically significant at 95% confidence. In particular, the coefficient for PREMIUM is positive, consistent with the theory that companies that are "dealt a better hand" through a higher bid premium should achieve higher returns, but it is not statistically significant in any of the models reported in Tables 5A and 5B.

5.2. Effect of defenses

To summarize the findings thus far, we show that ESBs increase the likelihood of remaining independent, that targets that remain independent have lower abnormal returns than targets that sell to either a white knight or to the initial bidder, and that ESBs do not seem to increase shareholder returns for targets that are acquired. These results suggest that ESBs decrease returns to target shareholders. In this subsection we now directly estimate the effect of takeover defenses on target shareholder returns. The results are reported in Tables 6A and 6B:

[insert Table 6A and 6B about here]

Column (1) of Table 6 reports results using industry-adjusted buy-and-hold returns as the dependent variable, and Column (2) reports results using Fama-French buy-and-hold abnormal returns. As foreshadowed by the results presented in Tables 2 and 5, the ESB coefficient is negative in all models, is relatively stable in magnitude, and is statistically significant when certain controls are introduced. In the short-run (Table 6A), the ESB coefficient ranges from –0.24 to –0.20, and is statistically significant in three out of four models (at 95% confidence in one and at 90% confidence in two). In the long run (Table 6B), the ESB coefficient ranges from –0.24 to –0.31, and is statistically significant in two out of four models. Using a simple average across models, ESBs reduce returns to target shareholders by 23% in the 12 months after the announcement of a hostile takeover bid, and by 28% in the 30 months after bid announcement.[21]

These findings suggest that most of the value loss attributable to an ESB occurs within the first year after the initial hostile bid is announced, by which time the outcome (either sale or no sale) becomes evident in most bids. From Columns (3) and (4) of Tables 5A and 5B, it is clear that this negative wealth effect is attributable primarily to the target's greater likelihood of remaining independent when it has an ESB, and not to differential returns to ESB and non-ESB targets given a particular outcome.

No other defense variables are statistically significant in predicting target shareholder returns in either the short-run or the long-run. Among controls, the only variable that is consistently significant is past stock returns: targets that under-performed their industry in the past continue to under-perform in the 12 months and 30 months following a hostile takeover bid. While this result may seem intuitive, it could also be seen as in tension with efficient capital market theory, which predicts that the poor past performance should be fully impounded into pre-bid stock prices, and thus all hostile bid targets should be equally situated at the point when the hostile bid is announced. However, to make arbitrage profits based on our model and past stock return data, one would need a separate model that did a reasonably good job of predicting hostile bids. That is because poor past performance might predict two things: (1) future target performance outside the bid context, a prediction that would be impounded in stock prices, and (2) target manager behavior and thus bid outcomes in the bid context (e.g., poorly performing target managers will be more likely to try to remain independent even at the risk of harming

[21] Our results are directionally the same but bigger in magnitude than the results we obtained in an earlier version of this work and which we noted in our companion law review pieces. These earlier results were obtained without the benefit of many of the controls we use above.

shareholders), a prediction that would not be impounded in stock prices at the time of an actual bid unless the market is able to anticipate hostile bid incidence. And published models of bid incidence are weak (Palepu 1985).

6. Concluding Remarks

Prior econometric studies of takeover defenses have focused on the poison pill, and thus have missed 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 31% to 64%, decreases the odds of a bidder completing its bid from 32% to 16%, and reduces the odds that the target will be forced into selling to a white knight from 37% to 20%, in the 12 months after a hostile bid is announced. These differences persist in the long –run, over the 30 months after a hostile bid is announced. 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.[22] 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 returns for shareholders as 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 resulted in lower abnormal returns of approximately 25%, on average, for the shareholders of hostile bid targets in the period 1996-2002.

[22] 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 3.4.1 of this paper, is more than 30%.

Our findings suggest that incumbents are substantially insulated from a hostile bid in the large subset of firms with ESBs, which should be a significant 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 lend support the proposal that we 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-poison-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.

It is important to stress that we have provided only a partial analysis of the effects of takeover defenses. We have limited ourselves to the effects that defenses have given that a bid was made for the company. We have not examined the full range of relevant effects, which include the effect of defenses on negotiated transactions and on ex ante management behavior (Coates 2000, Bebchuk 2002). Our conclusion that ESBs are the key to strong takeover defense suggests that it is important to examine their effects on the above dimensions. In current work, Subramanian (2003) studies the effects of ESBs on negotiated acquisitions and finds no evidence that ESBs significantly increase premia in such transactions. We hope that, in combination with our results, such work will provide a full picture of the effects of modern takeover defenses.

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Table 1: Summary Statistics on Hostile Bid & Target Characteristics

Summary statistics for all hostile takeover bids against U.S. public targets announced and resolved between January 1, 1996 and December 31, 2002, excluding bids against REIT's and targets with controlling shareholders. Bid information and deal attitude come from Thompson Financial Corporation's mergers & acquisitions database. Premium data comes from the University of Chicago's Center for Research in Securities Price (CRSP) database. Target defenses are derived from the target's charter and bylaws, as well as SEC filings. Bid strategy and bid outcomes are derived from bidder SEC filings and news reports. 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**	**ESB**	**No ESB**
	(1)	(2)	(3)
Defenses			
Staggered board	59.8%	100%***	27.4%***
Effective staggered board	44.6%	--	--
Fair price provision	61.6%	66.0%	58.1%
Supermajority vote provision	45.5%	66.0%***	29.0%***
Pre-bid poison pill	54.5%	56.0%	53.2%
Target Characteristics			
Market Capitalization ($ million)	$481 ($2,996)	$664 ($2,760)	$330 ($3,187)
Delaware corporation	47.3%	60.0%**	37.1%**
Tobin's Q (year prior to bid) divided by industry median	0.95	0.96	0.93
Stock return (over three years prior to bid) minus industry median	-17.1%	-17.8%	-13.4%
Leverage ratio (debt-to-equity, year prior to bid) minus industry median	0.17	0.09	0.18
Bid Strategy			
Bust-up bid	19.6%	28.0%*	12.9%*
Proxy fight	44.6%	36.0%*	51.6%*
All-cash offer	68.8%	60.0%*	75.8%*
Tender offer	53.6%	42.0%**	62.9%**
Tender offer & proxy fight	34.8%	32.0%	37.1%
Bear hug bid	36.6%	54.0%***	22.6%***
Bid premium	40.8% (47.9%)	36.7% (43.8%)*	43.6% (51.4%)*
CEO Characteristics			
Age at bid announcement	56.0 (55.2)	57.0 (55.7)	54.0 (54.8)
CEO is Chairman of the Board of Directors	65.5%	66.0%	65.0%
Percent held by CEO	1.2% (3.9%)	0.9% (3.2%)	1.2% (4.4%)
Board Composition			
Size	8.0 (9.2)	9.0 (9.5)	7.0 (8.7)
Inside directors	30.9%	30.2%	31.4%
Outside directors	65.0%	64.7%	65.2%
Grey directors	4.2%	5.1%	3.4%
Percent with majority-outside board	81.3%	86.0%	77.4%
Share Ownership			
Percent held by other directors and officers	6.0% (10.1%)	6.9% (9.3%)	4.7% (10.8%)
Percent held by institutions	45.1% (41.5%)	42.7% (40.4%)	48.5% (42.4%)
Percent held by other 5% holders	20.3% (22.2%)	18.2% (20.7%)	20.8% (23.4%)
Short-Run Outcome (12 Months after Bid Announcement)			
Target Remains Independent	45.5%	64.0%***	30.6%***
Target Sold to Other Bidder	29.5%	20.0%**	37.1%**
Bidder Acquires Target	25.0%	16.0%**	32.3%**
Long-Run Outcome (30 Months after Bid Announcement)			
Target Remains Independent	36.6%	48.0%**	27.4%**
Target Sold to Other Bidder	36.6%	34.0%	38.7%
Hostile Bidder Acquires Target	26.8%	18.0%*	33.9%*
Observations	112	50	62

Table 2A: Effect of Defenses on Short-Run 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 the specified time window, 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.

Model # =>	**(1)**	**(2)**	**(3)**
Defenses			
Staggered board			-2.19 (1.35)
Effective staggered board	2.02 (0.55)***	2.34 (0.61)***	5.07 (1.45)***
Effective annual term	0.87 (0.71)	0.63 (0.84)	0.43 (1.18)
Fair price provision	0.06 (0.56)	-0.05 (0.62)	0.58 (0.89)
Supermajority vote provision	-0.10 (0.52)	-0.03 (0.60)	-0.41 (0.94)
Pre-bid poison pill	-0.73 (0.45)	-0.75 (0.50)	-0.93 (0.70)
Target Characteristics			
Log (Size)	-0.20 (0.11)*	-0.27 (0.17)	-0.59 (0.28)**
Delaware incorporation (0/1)	-0.53 (0.50)	-0.59 (0.55)	-1.01 (0.88)
Stock return			0.82 (0.54)
Tobin's Q			-0.63 (0.95)
Leverage			-0.85 (0.65)
Bid Strategy			
Bust-up bid			-2.66 (1.02)***
Proxy fight			0.08 (0.70)
All-cash offer			0.65 (0.75)
Bid premium			-1.58 (1.16)
CEO Characteristics			
CEO age >=60 (0/1)		-0.06 (0.56)	-1.18 (0.76)*
Percent held by CEO		0.01 (0.04)	0.09 (0.06)
Board Composition			
Size		0.04 (0.12)	0.30 (0.18)*
CEO is Chairman of the Board (0/1)		0.35 (0.59)	0.47 (0.84)
Majority-outside board? (0/1)		-0.55 (0.66)	-0.17 (0.85)
Share Ownership			
Percent held by other D&O		-0.01 (0.03)	-0.07 (0.04)
Percent held by other 5% holders		-0.01 (0.02)	-0.03 (0.03)
Pseudo R-sq	**15.4%**	**20.3%**	**37.7%**
Number of observations	**112**	**103**	**91**

Table 2B: Effect of Defenses on Long-Run 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 the specified time window, 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.

Model # =>	**(1)**	**(2)**	**(3)**
Defenses			
Staggered board			-1.59 (1.28)
Effective staggered board	1.61 (0.56)***	1.94 (0.63)***	3.61 (1.27)***
Effective annual term	0.63 (0.71)	0.25 (0.87)	-0.39 (1.22)
Fair price provision	0.26 (0.56)	0.22 (0.63)	1.02 (0.93)
Supermajority vote provision	-0.42 (0.53)	-0.49 (0.62)	-1.04 (1.02)
Pre-bid poison pill	-0.86 (0.45)*	-0.64 (0.49)	-0.68 (0.67)
Target Characteristics			
Log (Size)	-0.15 (0.11)	-0.22 (0.17)	-0.50 (0.29)*
Delaware incorporation (0/1)	-0.82 (0.50)	-0.85 (0.55)	-1.62 (0.93)
Stock return			1.07 (0.59)*
Tobin's Q			-1.58 (1.32)
Leverage			-0.09 (0.59)
Bid Strategy			
Bust-up bid			-1.52 (0.90)*
Proxy fight			-0.86 (0.67)
All-cash offer			0.47 (0.75)
Bid premium			-1.80 (1.19)
CEO Characteristics			
CEO age >=60 (0/1)		-0.38 (0.56)	-1.69 (0.80)**
Percent held by CEO		0.02 (0.04)	0.13 (0.06)**
Board Composition			
Size		-0.01 (0.12)	0.08 (0.18)
CEO is Chairman of the Board (0/1)		0.20 (0.57)	0.03 (0.85)
Majority-outside board? (0/1)		-1.09 (0.66)	-1.10 (0.84)
Share Ownership			
Percent held by other D&O		-0.02 (0.03)	-0.10 (0.05)**
Percent held by other 5% holders		-0.01 (0.02)	-0.04 (0.03)
Pseudo R-sq	**11.7%**	**15.8%**	**32.4%**
Number of observations	**112**	**103**	**91**

Table 3A: Effect of Defenses on Short-Run 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 the specified time window, 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.

Model # =>	**(1)**	**(2)**	**(3)**
Defenses			
Staggered board			1.30 (0.90)
Effective staggered board	-1.08 (0.56)**	-1.20 (0.58)**	-2.32 (0.94)**
Effective annual term	0.07 (0.73)	0.50 (0.84)	0.68 (0.97)
Fair price provision	-0.41 (0.65)	-0.45 (0.72)	-0.16 (0.90)
Supermajority vote provision	0.10 (0.56)	0.18 (0.65)	0.18 (0.85)
Pre-bid poison pill	0.12 (0.49)	0.18 (0.54)	0.43 (0.68)
Target Characteristics			
Log (Size)	0.23 (0.12)*	0.37 (0.20)*	0.45 (0.28)
Delaware incorporation (0/1)	-0.06 (0.59)	-0.25 (0.65)	0.65 (0.84)
Stock return			0.11 (0.47)
Tobin's Q			0.00 (0.54)
Leverage			0.13 (0.53)
Bid Strategy			
Bust-up bid			0.27 (0.82)
Proxy fight			-0.85 (0.65)
All-cash offer			0.79 (0.78)
Bid premium			2.83 (1.14)**
CEO Characteristics			
CEO age >=60 (0/1)		-0.01 (0.62)	-0.12 (0.75)
Percent held by CEO		-0.00 (0.04)	-0.14 (0.09)
Board Composition			
Size		-0.10 (0.14)	-0.14 (0.18)
CEO is Chairman of the Board (0/1)		-0.08 (0.63)	0.67 (0.83)
Majority-outside board? (0/1)		0.98 (0.76)	0.43 (0.94)
Share Ownership			
Percent held by other D&O		0.01 (0.03)	0.04 (0.04)
Percent held by other 5% holders		0.02 (0.02)	-0.01 (0.02)
Pseudo R-sq	**7.6%**	**12.4%**	**23.9%**
Number of observations	**112**	**103**	**91**

Table 3B: Effect of Defenses on Long-Run 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 the specified time window, 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.

Model # =>	**(1)**	**(2)**	**(3)**
Defenses			
Staggered board			1.02 (0.91)
Effective staggered board	-0.91 (0.54)*	-1.01 (0.57)*	-1.76 (0.91)*
Effective annual term	0.34 (0.70)	0.78 (0.83)	1.07 (0.97)
Fair price provision	-0.37 (0.64)	-0.37 (0.72)	0.08 (0.91)
Supermajority vote provision	0.04 (0.55)	0.10 (0.65)	0.13 (0.85)
Pre-bid poison pill	0.30 (0.47)	0.33 (0.54)	0.55 (0.68)
Target Characteristics			
Log (Size)	0.21 (0.11)*	0.42 (0.20)**	0.51 (0.28)*
Delaware incorporation (0/1)	-0.23 (0.57)	-0.47 (0.64)	0.56 (0.83)
Stock return			0.10 (0.47)
Tobin's Q			0.19 (0.54)
Leverage			0.07 (0.53)
Bid Strategy			
Bust-up bid			0.00 (0.82)
Proxy fight			-0.44 (0.64)
All-cash offer			1.10 (0.78)
Bid premium			3.38 (1.21)***
CEO Characteristics			
CEO age >=60 (0/1)		-0.08 (0.63)	-0.41 (0.77)
Percent held by CEO		-0.01 (0.04)	-0.16 (0.09)
Board Composition			
Size		-0.17 (0.14)	-0.19 (0.19)
CEO is Chairman of the Board (0/1)		-0.27 (0.63)	0.45 (0.80)
Majority-outside board? (0/1)		1.15 (0.77)	0.62 (0.96)
Share Ownership			
Percent held by other D&O		0.01 (0.04)	0.03 (0.04)
Percent held by other 5% holders		0.03 (0.02)	0.00 (0.02)
Pseudo R-sq	**7.4%**	**15.2%**	**26.2%**
Number of observations	**112**	**103**	**91**

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 or white knight; and 0 if the target is sold to the hostile bidder. All models are run as logit regressions.

Model # =>	**(1)**	**(2)**	**(3)**
Defenses			
Staggered board			0.27 (1.34)
Effective staggered board	0.02 (0.64)	0.19 (0.69)	-1.70 (1.71)
Effective annual term	-0.85 (0.88)	-0.77 (0.97)	0.07 (1.50)
Fair price provision	0.54 (0.88)	0.59 (1.03)	-1.10 (1.72)
Supermajority vote provision	-0.05 (0.69)	-0.17 (0.80)	-0.90 (1.48)
Pre-bid poison pill	0.42 (0.60)	0.23 (0.70)	1.16 (1.11)
Target Characteristics			
Log (Size)	-0.22 (0.15)	-0.26 (0.21)	-0.41 (0.49)
Delaware incorporation (0/1)	0.63 (0.75)	0.82 (0.82)	-0.55 (1.18)
Stock return			-0.48 (0.60)
Tobin's Q			-0.38 (0.79)
Leverage			0.13 (0.82)
Bid Strategy			
Bust-up bid			1.38 (1.29)
Proxy fight			1.99 (1.03)*
All-cash offer			-2.74 (1.36)**
Bid premium			-6.25 (2.46)***
CEO Characteristics			
CEO age >=60 (0/1)		0.21 (0.74)	1.14 (1.13)
Percent held by CEO		-0.00 (0.05)	0.08 (0.13)
Board Composition			
Size		0.06 (0.16)	-0.22 (0.31)
CEO is Chairman of the Board (0/1)		-0.09 (0.70)	-0.93 (1.04)
Majority-outside board? (0/1)		-0.80 (0.85)	-0.17 (1.36)
Share Ownership			
Percent held by other D&O		-0.01 (0.04)	0.01 (0.07)
Percent held by other 5% holders		-0.02 (0.02)	0.02 (0.04)
Pseudo R-sq	**4.5%**	**6.4%**	**33.3%**
Number of observations	**61**	**58**	**54**

Table 4B: Effect of Defenses on Long-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 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 or white knight; and 0 if the target is sold to the hostile bidder. All models are run as logit regressions.

Model # =>	**(1)**	**(2)**	**(3)**
Defenses			
Staggered board			0.25 (1.18)
Effective staggered board	0.29 (0.61)	0.48 (0.66)	-0.35 (1.27)
Effective annual term	-1.16 (0.87)	-0.93 (0.97)	-0.72 (1.34)
Fair price provision	0.34 (0.85)	0.29 (0.97)	-0.72 (1.35)
Supermajority vote provision	0.29 (0.66)	0.16 (0.74)	0.05 (1.12)
Pre-bid poison pill	0.13 (0.55)	-0.15 (0.65)	-0.24 (0.83)
Target Characteristics			
Log (Size)	-0.24 (0.14)	-0.31 (0.21)	-0.39 (0.36)
Delaware incorporation (0/1)	0.87 (0.74)	1.04 (0.81)	0.25 (0.99)
Stock return			-0.31 (0.56)
Tobin's Q			-0.17 (0.69)
Leverage			-0.21 (0.72)
Bid Strategy			
Bust-up bid			0.54 (1.05)
Proxy fight			1.49 (0.87)*
All-cash offer			-2.05 (1.03)**
Bid premium			-5.02 (1.86)***
CEO Characteristics			
CEO age >=60 (0/1)		0.61 (0.71)	1.21 (0.99)
Percent held by CEO		-0.01 (0.05)	0.05 (0.13)
Board Composition			
Size		0.12 (0.14)	0.02 (0.22)
CEO is Chairman of the Board (0/1)		-0.02 (0.71)	-0.54 (0.95)
Majority-outside board? (0/1)		-0.86 (0.85)	-0.62 (1.17)
Share Ownership			
Percent held by other D&O		-0.00 (0.04)	0.02 (0.07)
Percent held by other 5% holders		-0.01 (0.02)	0.01 (0.03)
Pseudo R-sq	**8.0%**	**12.2%**	**32.7%**
Number of observations	**71**	**67**	**63**

Table 5A: Effect of Bid Outcomes on Short-Run Shareholder Returns

Regression estimates of the relationship between hostile bid outcomes and shareholder returns 12 months after bid announcement. The dependent variable is shareholder returns nine months, 12 months, and 30 months after the announcement of the hostile bid, using a baseline of two months prior to bid announcement. Return data comes from the University of Chicago's Center for Research in Securities Price (CRSP) database. Industry-adjusted returns are calculated using the Fama-French 48-industy classification of 4-digit SIC codes. Fama-French returns are calculated using the Fama-French (1992) three-factor model, as described in the text. All models are run as robust regressions. Dependent variable in all models is buy-and-hold abnormal return over the relevant window. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence.

Model # =>	**(1) Industry-adjusted returns**	**(2) Fama-French abnormal returns**	**(3) Industry-adjusted returns**	**(4) Fama-French abnormal returns**	**(5) Industry-adjusted returns**	**(6) Fama-French abnormal returns**
Bid Outcome						
Sold to white knight	0.47 (0.12)***	0.48 (0.12)***	0.59 (0.18)***	0.56 (0.18)***	0.45 (0.13)***	0.41 (0.14)***
Sold to initial bidder	0.38 (0.13)***	0.48 (0.13)***	0.45 (0.19)***	0.61 (0.18)***	0.32 (0.17)**	0.45 (0.14)***
Defenses						
Effective staggered board	-0.05 (0.12)	-0.00 (0.12)	0.04 (0.19)	0.12 (0.19)	-0.06 (0.12)	-0.01 (0.13)
Effective annual term	-0.18 (0.17)	-0.23 (0.17)	-0.19 (0.18)	-0.20 (0.18)	-0.18 (0.17)	-0.18 (0.18)
Fair price provision	-0.06 (0.13)	0.04 (0.13)	-0.03 (0.13)	0.07 (0.13)	-0.02 (0.14)	-0.05 (0.15)
Supermajority vote provision	0.02 (0.12)	-0.11 (0.12)	-0.03 (0.12)	-0.13 (0.12)	-0.03 (0.14)	-0.04 (0.15)
Pre-bid poison pill	-0.16 (0.10)	-0.10 (0.10)	-0.15 (0.10)	-0.09 (0.10)	-0.17 (0.10)	-0.06 (0.11)
ESB*Sold to white knight			-0.18 (0.27)	-0.11 (0.26)		
ESB*Sold to initial bidder			-0.04 (0.28)	-0.22 (0.28)		
Target Characteristics						
Log (Size)	-0.00 (0.03)	-0.03 (0.03)	-0.02 (0.03)	-0.02 (0.03)	0.04 (0.04)	0.00 (0.04)
Delaware incorporation (0/1)	-0.16 (0.11)	-0.21 (0.11)*	-0.18 (0.11)	-0.21 (0.11)	0.04 (0.13)	0.02 (0.14)
Stock return					-0.09 (0.08)	-0.12 (0.09)
Tobin's Q					-0.17 (0.10)	-0.07 (0.11)
Leverage					0.07 (0.08)	0.02 (0.09)
Bid Strategy						
Bust-up bid					-0.06 (0.13)	-0.06 (0.15)
Proxy fight					-0.02 (0.10)	0.11 (0.11)
All-cash offer					0.07 (0.11)	-0.01 (0.12)
Bid premium					0.24 (0.18)	0.15 (0.19)
CEO Characteristics						
CEO age >=60 (0/1)	0.00 (0.11)	-0.11 (0.11)	-0.01 (0.12)	-0.12 (0.11)	0.06 (0.11)	-0.01 (0.12)
Percent held by CEO	-0.01 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Board Composition						
Size	-0.03 (0.02)	-0.02 (0.02)	-0.02 (0.03)	-0.02 (0.03)	-0.03 (0.03)	-0.00 (0.03)
CEO is Chairman of the Board (0/1)	0.02 (0.12)	-0.01 (0.11)	0.01 (0.12)	0.00 (0.12)	-0.07 (0.12)	-0.09 (0.13)
Majority-outside board? (0/1)	-0.05 (0.13)	-0.02 (0.13)	-0.03 (0.13)	0.00 (0.13)	0.01 (0.13)	0.06 (0.14)
Share ownership						
Percent held by other D&O	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.00 (0.01)
Percent held by other 5% holders	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Number of observations	**100**	**100**	**100**	**100**	**91**	**91**

Table 5B: Effect of Bid Outcomes on Long-Run Shareholder Returns

Regression estimates of the relationship between hostile bid outcomes and shareholder returns 30 months after bid announcement. The dependent variable is shareholder returns nine months, 12 months, and 30 months after the announcement of the hostile bid, using a baseline of two months prior to bid announcement. Return data comes from the University of Chicago's Center for Research in Securities Price (CRSP) database. Industry-adjusted returns are calculated using the Fama-French 48-industy classification of 4-digit SIC codes. Fama-French returns are calculated using the Fama-French (1992) three-factor model, as described in the text. All models are run as robust regressions. Dependent variable in all models is buy-and-hold abnormal return over the relevant window. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence.

Model # =>	**(1) Industry-adjusted returns**	**(2) Fama-French abnormal returns**	**(3) Industry-adjusted returns**	**(4) Fama-French abnormal returns**	**(5) Industry-adjusted returns**	**(6) Fama-French abnormal returns**
Bid Outcome						
Sold to white knight	0.63 (0.15)***	0.73 (0.15)***	0.88 (0.24)***	0.58 (0.24)**	0.59 (0.16)***	0.48 (0.17)***
Sold to initial bidder	0.55 (0.17)***	0.71 (0.17)***	0.69 (0.25)***	0.50 (0.24)**	0.47 (0.17)***	0.51 (0.19)***
Defenses						
Effective staggered board	-0.07 (0.15)	-0.19 (0.15)	0.20 (0.26)	-0.46 (0.25)*	-0.13 (0.15)	-0.19 (0.17)
Effective annual term	-0.17 (0.23)	-0.29 (0.22)	-0.12 (0.23)	-0.30 (0.23)	-0.18 (0.22)	-0.34 (0.24)
Fair price provision	-0.13 (0.17)	0.06 (0.17)	-0.11 (0.17)	0.02 (0.17)	-0.02 (0.18)	0.10 (0.20)
Supermajority vote provision	0.02 (0.16)	-0.13 (0.16)	-0.03 (0.16)	-0.11 (0.16)	-0.05 (0.18)	-0.21 (0.20)
Pre-bid poison pill	-0.06 (0.13)	0.05 (0.13)	-0.06 (0.13)	0.04 (0.13)	-0.17 (0.13)	-0.03 (0.14)
ESB*Sold to white knight			-0.41 (0.32)	0.26 (0.31)		
ESB*Sold to initial bidder			-0.20 (0.36)	0.44 (0.36)		
Target Characteristics						
Log (Size)	-0.09 (0.04)**	-0.11 (0.04)**	-0.10 (0.05)**	-0.12 (0.04)***	-0.02 (0.05)	-0.09 (0.06)
Delaware incorporation (0/1)	-0.20 (0.15)	-0.20 (0.15)	-0.22 (0.15)	-0.21 (0.15)	0.05 (0.17)	0.04 (0.18)
Stock return					-0.07 (0.10)	-0.15 (0.11)
Tobin's Q					-0.13 (0.13)	-0.01 (0.14)
Leverage					0.07 (0.11)	-0.06 (0.11)
Bid Strategy						
Bust-up bid					-0.01 (0.17)	-0.03 (0.19)
Proxy fight					0.02 (0.13)	0.16 (0.14)
All-cash offer					-0.04 (0.15)	-0.06 (0.16)
Bid premium					0.31 (0.24)	0.26 (0.25)
CEO Characteristics						
CEO age >=60 (0/1)	-0.01 (0.15)	-0.30 (0.15)**	-0.03 (0.15)	-0.26 (0.15)*	0.02 (0.15)	-0.24 (0.16)
Percent held by CEO	-0.01 (0.01)	0.00 (0.01)	-0.01 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Board Composition						
Size	0.03 (0.03)	0.05 (0.03)	0.04 (0.03)	0.05 (0.03)	0.02 (0.03)	0.08 (0.04)**
CEO is Chairman of the Board (0/1)	0.12 (0.15)	0.03 (0.15)	0.13 (0.15)	0.02 (0.15)	0.03 (0.16)	-0.03 (0.17)
Majority-outside board? (0/1)	-0.08 (0.17)	-0.15 (0.17)	-0.04 (0.18)	-0.13 (0.17)	-0.06 (0.17)	-0.07 (0.19)
Share ownership						
Percent held by other D&O	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)
Percent held by other 5% holders	0.00 (0.00)	-0.00 (0.00)	0.00 (0.00)	-0.00 (0.00)	0.01 (0.01)	0.01 (0.01)
Number of observations	**100**	**100**	**100**	**100**	**91**	**91**

Table 6A: Effect of Defenses on Short-Run Shareholder Returns

Regression estimates of the relationship between hostile bid outcomes and shareholder returns 12 months after bid announcement. The dependent variable is shareholder returns nine months, 12 months, and 30 months after the announcement of the hostile bid, using a baseline of two months prior to bid announcement. Return data comes from the University of Chicago's Center for Research in Securities Price (CRSP) database. Industry-adjusted returns are calculated using the Fama-French 48-industy classification of 4-digit SIC codes. Industry-adjusted returns are calculated using the Fama-French 48-industy classification of 4-digit SIC codes. Fama-French returns are calculated using the Fama-French (1992) three-factor model, as described in the text. All models are run as robust regressions. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence.

Model # =>	**(1) Industry-adjusted returns**	**(2) Fama-French abnormal returns**	**(3) Industry-adjusted returns**	**(4) Fama-French abnormal returns**
Defenses				
Effective staggered board	-0.24 (0.12)*	-0.24 (0.13)*	-0.23 (0.12)**	-0.20 (0.13)
Effective annual term	-0.13 (0.19)	-0.22 (0.20)	-0.20 (0.18)	-0.18 (0.20)
Fair price provision	-0.16 (0.15)	-0.09 (0.15)	-0.18 (0.15)	-0.20 (0.16)
Supermajority vote provision	0.08 (0.13)	0.01 (0.14)	0.02 (0.15)	0.04 (0.16)
Pre-bid poison pill	-0.12 (0.11)	-0.04 (0.11)	-0.15 (0.11)	-0.01 (0.12)
Target Characteristics				
Log (Size)	0.03 (0.04)	-0.01 (0.04)	0.08 (0.04)*	0.05 (0.05)
Delaware incorporation (0/1)	-0.07 (0.12)	-0.12 (0.13)	0.09 (0.13)	0.08 (0.15)
Stock return			-0.19 (0.08)**	-0.21 (0.09)**
Tobin's Q			-0.17 (0.10)	-0.05 (0.12)
Leverage			0.10 (0.09)	0.04 (0.10)
Bid Strategy				
Bust-up bid			0.14 (0.14)	0.12 (0.15)
Proxy fight			-0.02 (0.10)	0.09 (0.12)
All-cash offer			-0.02 (0.12)	-0.06 (0.13)
Bid premium			0.19 (0.18)	0.24 (0.20)
CEO Characteristics				
CEO age >=60 (0/1)	0.04 (0.12)	-0.08 (0.13)	0.13 (0.12)	0.06 (0.13)
Percent held by CEO	-0.01 (0.01)	-0.01 (0.01)	-0.02 (0.01)*	-0.02 (0.01)*
Board Composition				
Size	-0.04 (0.03)	-0.01 (0.03)	-0.04 (0.03)	-0.01 (0.03)
CEO is Chairman of the Board (0/1)	-0.02 (0.13)	-0.09 (0.13)	-0.10 (0.13)	-0.11 (0.14)
Majority-outside board? (0/1)	-0.01 (0.14)	-0.02 (0.15)	-0.08 (0.14)	-0.00 (0.15)
Share Ownership				
Percent held by other D&O	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)	0.01 (0.01)
Percent held by other 5% holders	-0.00 (0.00)	-0.00 (0.00)	0.01 (0.00)	0.00 (0.00)
Number of observations	**100**	**100**	**91**	**91**

Table 6B: Effect of Defenses on Long-Run Shareholder Returns

Regression estimates of the relationship between hostile bid outcomes and shareholder returns 30 months after bid announcement. The dependent variable is shareholder returns nine months, 12 months, and 30 months after the announcement of the hostile bid, using a baseline of two months prior to bid announcement. Return data comes from the University of Chicago's Center for Research in Securities Price (CRSP) database. Industry-adjusted returns are calculated using the Fama-French 48-industy classification of 4-digit SIC codes. Industry-adjusted returns are calculated using the Fama-French 48-industy classification of 4-digit SIC codes. Fama-French returns are calculated using the Fama-French (1992) three-factor model, as described in the text. All models are run as robust regressions. Standard errors are given in parentheses; * = significant at 90% confidence; ** = significant at 95% confidence; *** = significant at 99% confidence.

Model # =>	**(1) Industry-adjusted returns**	**(2) Fama-French abnormal returns**	**(3) Industry-adjusted returns**	**(4) Fama-French abnormal returns**
Defenses				
Effective staggered board	-0.24 (0.16)	-0.27 (0.18)	-0.30 (0.15)**	-0.31 (0.17)*
Effective annual term	-0.16 (0.25)	-0.34 (0.28)	-0.18 (0.22)	-0.36 (0.26)
Fair price provision	-0.20 (0.19)	-0.02 (0.21)	-0.15 (0.18)	-0.05 (0.21)
Supermajority vote provision	0.06 (0.18)	-0.23 (0.19)	-0.03 (0.18)	-0.20 (0.21)
Pre-bid poison pill	-0.04 (0.15)	0.02 (0.16)	-0.12 (0.13)	0.05 (0.15)
Target Characteristics				
Log (Size)	-0.08 (0.05)	-0.15 (0.05)***	0.01 (0.05)	-0.10 (0.06)*
Delaware incorporation (0/1)	-0.14 (0.16)	-0.19 (0.18)	0.12 (0.17)	0.03 (0.19)
Stock return			-0.18 (0.10)*	-0.20 (0.12)*
Tobin's Q			-0.10 (0.13)	0.03 (0.15)
Leverage			0.06 (0.11)	-0.07 (0.12)
Bid Strategy				
Bust-up bid			0.06 (0.17)	0.14 (0.20)
Proxy fight			0.11 (0.13)	0.13 (0.15)
All-cash offer			-0.13 (0.15)	-0.09 (0.17)
Bid premium			0.15 (0.23)	0.38 (0.27)
CEO Characteristics				
CEO age >=60 (0/1)	0.02 (0.16)	-0.26 (0.18)	0.06 (0.15)	-0.12 (0.17)
Percent held by CEO	-0.02 (0.01)	-0.00 (0.01)	-0.01 (0.01)	-0.02 (0.01)
Board Composition				
Size	0.03 (0.04)	0.06 (0.04)	0.01 (0.03)	0.08 (0.04)
CEO is Chairman of the Board (0/1)	0.10 (0.17)	-0.07 (0.19)	-0.07 (0.16)	-0.08 (0.19)
Majority-outside board? (0/1)	0.12 (0.19)	0.02 (0.21)	0.12 (0.17)	0.06 (0.20)
Share Ownership				
Percent held by other D&O	-0.01 (0.01)	-0.01 (0.01)	-0.00 (0.01)	0.00 (0.01)
Percent held by other 5% holders	0.00 (0.00)	-0.00 (0.01)	0.01 (0.01)	0.01 (0.01)
Observations	**100**	**100**	**91**	**91**