

WHY DO MANAGERS DISMANTLE STAGGERED BOARDS?

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Staggered boards offer incumbent management considerable protection from hostile takeovers and proxy fights. However, in the last few years, managers of an increasing number of firms have voluntarily destaggered their boards, exposing themselves to the risk of being removed from office. This article investigates why managers decide to destagger their boards. I find statistically significant evidence that the likelihood of destaggering increases with shareholder pressure (in the form of precatory shareholder resolutions seeking destaggered boards) and with the amount of the chief executive officer's (CEO's) unvested (including out-of-the-money) options. I do not find evidence of a strong connection between the decision to destagger and firm performance, or other CEO characteristics, including other forms of compensation such as unrestricted equity. The study provides insight into the shareholders' informal power and influence over the board, and the role of equity and monetary compensation in aligning management's interests with those of the shareholders.

I. INTRODUCTION

Staggered boards, also known as classified boards, are boards in which only part of the directors are elected at each annual shareholder meeting. Directors of staggered boards are divided into classes, usually three, and in each annual meeting only one class of directors is elected, usually for a three-year term.¹ Replacing the majority of the board thus

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I am indebted to Jesse Fried for invaluable discussions and comments. I would also like to thank Amir Barnea, Lucian Bebchuk, Bernard Black, Brian Broughman, Donna Hitscherich, Eric Talley, participants in the Research in Corporate and Bankruptcy Law Seminar at Boalt Hall, the 1st Annual Conference on Empirical Legal Studies at Austin, Texas (CELS 2006), and the American Law and Economics Association annual meeting at Harvard (ALEA 2007). I gratefully acknowledge funding support from the Berkeley Center of Law Business and the Economy (BCLBE).

¹State corporation laws impose varied restrictions on board structure. For example, under California law, a board with fewer than nine directors can be divided into only two classes. See CAL. CORP. CODE § 301.5(b) (2006). Under Delaware law, there is no minimum number of directors required for a board to be divided into three classes. Under both California and Delaware law, there can be no more than three classes of directors. The longest term a director on a staggered board may serve is three years. See CAL. CORP. CODE § 301.5(a) (2006); DEL. CODE ANN. tit. 8, § 141(d) (2005). The maximum number of classes under New York law is four. See N.Y. BUS. CORP. LAW § 704(a) (McKinney 2006). Under New Jersey law, the maximum term for each class

requires winning the elections in at least two separate annual meetings. Gaining control of the board is, therefore, a cumbersome process.² Consequently, staggered boards entrench the managers in their positions.³ Since charter provisions usually establish the staggered board,⁴ the shareholders cannot eliminate it without the directors' approval.⁵

The majority of U.S. publicly traded companies have charter-based staggered boards.⁶ Empirical literature studied the effect of staggered boards on firm value. Bebchuk and Cohen,⁷ and Faleye⁸ found the market value of companies with staggered boards is lower than that of companies that do not have staggered boards. Prior studies have found a staggered board almost doubles the probability that a target company will remain independent, and on average a staggered board reduces returns to shareholders of hostile bid targets.⁹ Faleye also found that companies with staggered boards have a lower probability of chief executive officer (CEO) turnover, and both CEO compensation and CEO turnover are less sensitive to the performance of the company.¹⁰

In the absence of an official power to dismantle staggered boards unilaterally, shareholders seeking to destagger the board use precatory (nonbinding) resolutions to ask the board to establish annual elections of all directors. Such shareholder resolutions are passed pursuant to Rule 14a-8 of the Securities and Exchange Commission (SEC) promulgated under the Securities Exchange Act of 1934.¹¹ Bebchuk found more than two-thirds of precatory resolutions calling for the repeal of staggered boards that were passed in 1997-2003 were not implemented by the fall of 2004.¹²

of directors is five years. See N.J. STAT. § 14A:6-4 (1) (2006).

²See, e.g., Lucian Arye Bebchuk et al., *The Powerful Antitakeover Force of Staggered Boards: Theory, Evidence, and Policy*, 54 STAN. L. REV. 887, 890 (2002).

³See, e.g., Lucian Arye Bebchuk & Alma Cohen, *The Costs of Entrenched Boards*, 78 J. FIN. ECON. 409, 412 (2005), available at <http://ssrn.com/abstract=556987>.

⁴*Id.* at 419 (showing that between 88% and 91% of staggered boards are established in the firm's charter).

⁵See Bebchuk et al., *supra* note 2, at 894 (noting that in all states, repealing a staggered board requires the approval of both the board and the shareholders); see, e.g., DEL. CODE ANN. tit. 8, § 242(b)(1)-(2) (2005).

⁶See Bebchuk et al., *supra* note 2, at 889, 895 ("[A]mong a sample of 2,421 large public U.S. companies, 59% have staggered boards.").

⁷See Bebchuk & Cohen, *supra* note 3, at 411, 417, 421 (finding companies with staggered boards have a lower Tobin's Q). [For the definition of Tobin's Q, see *infra* Part IV.A.2].

⁸See Olubunmi Faleye, *Classified Boards, Firm Value, and Managerial Entrenchment*, 83 J. FIN. ECON. 501 (2007), available at <http://ssrn.com/abstract=877216> (studying the effect of staggered boards on firm value, CEO compensation, and CEO turnover).

⁹See Bebchuk et al., *supra* note 2, at 891.

¹⁰See Faleye, *supra* note 8, at 523-24.

¹¹See 17 C.F.R. § 240.14a-8 (2007) (governing the inclusion of shareholder proposals in the company's proxy materials).

¹²Lucian Arye Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV.

Nevertheless, Thomas and Cotter found that more shareholder proposals to repeal staggered boards received the support of the majority of the shareholders in 2002-2004 in comparison to the 1990s.¹³

In the last few years, however, a small but growing number of firms have voluntarily destaggered, some in apparent response to shareholder resolutions, and some not. While there were only three management proposals to repeal the staggered board in 2001,¹⁴ thirty-five management proposals to repeal the staggered board were favorably presented by management at shareholder meetings of U.S. public companies in 2004.¹⁵ In 2005, thirty similar management proposals were brought to the shareholders' vote.¹⁶ Less than half of these companies had one or more shareholder resolutions asking to destagger in the five-year period before the management decided to dismantle the staggered board.¹⁷

The existing literature does not offer any explanation why managers would volunteer to destagger the board.¹⁸ This managerial behavior may seem irrational at first glance, since it increases managers' risk of being replaced. This article sets out to explore the motivation for this behavior. The goal of this work is to find out why managers choose to dismantle staggered boards.

I analyze data on companies that recently changed their boards from staggered to annually elected boards. The evidence supports the hypothesis that two forces influence managers' decisions to destagger: (1) shareholder pressure, as measured by precatory resolutions; and (2) the CEO's unvested

833, 854 (2005).

¹³See Randall S. Thomas & James F. Cotter, *Shareholder Proposals in the New Millennium: Shareholder Support, Board Response, and Market Reaction*, 13 J. CORP. FIN. 368 (2007).

¹⁴See Bebchuk, *supra* note 12, at 856.

¹⁵The proxy solicitation firm Georgeson Shareholder reports thirty-seven management proposals to destagger the board in 2004, of which two proposals had a board recommendation against the proposal. See GEORGESON SHAREHOLDER, 2004 ANNUAL CORPORATE GOVERNANCE REVIEW 30, <http://www.georgesonshareholder.com/usa/download/acgr/acgr2004/pdf>.

¹⁶Georgeson Shareholder reports thirty-two management proposals to destagger the board in 2005, of which thirty proposals had a board recommendation in favor of the proposal. See GEORGESON SHAREHOLDER, 2005 ANNUAL CORPORATE GOVERNANCE REVIEW 42, <http://www.georgesonshareholder.com/usa/download/acgr/acgr2005/pdf>.

¹⁷This ratio is calculated using Georgeson Shareholder's data on shareholder resolutions to repeal the staggered board in the years 1999-2003. See GEORGESON SHAREHOLDER, ANNUAL CORPORATE GOVERNANCE REVIEWS, http://www.georgesonshareholder.com/usa/resources_research.php.

¹⁸As this article was finished and in limited circulation, I was notified of another upcoming work by Re-Jin Guo, Timothy Kruse, and Tom Nohel that seems to have some overlap with this article and also looks at companies that destagger. Rejin J. Guo et al., *Undoing the Powerful Anti-Takeover Force of Staggered Boards* (2nd Annual Conf. on Empirical Legal Studies Paper, 2006), available at <http://ssrn.com/abstract=891534>.

stock options (UVOs)¹⁹ including out-of-the-money²⁰ stock options.²¹ Both precatory shareholder resolutions and UVOs raise the likelihood of destaggering.

I also test the effects of other characteristics of the manager and of the firm. The tests include variables such as the age and tenure of the CEO, the CEO compensation, equity holdings of the manager, the Entrenchment Index, and the performance of the firm.²² None of these other variables, however, yield a statistically significant result.

This study contributes to current discussions on the extent of shareholder power. The different sides of this debate disagree on the proper allocation of power between management and shareholders.²³ My study suggests shareholders are more potent than might appear from a simple study of their formal rights. My finding of a statistically significant connection between precatory resolutions and the management's decision to destagger shows that the shareholders may have an informal ability to reshape the board structure. To be sure, this power to influence the board is limited in comparison to formal control rights. Indeed, the majority of companies with precatory resolutions do not rush to destagger.²⁴ Nonetheless, the shareholders are not completely defenseless.²⁵

¹⁹An unvested equity interest is a restricted right to the equity; the right to the equity is generally conditioned on the CEO staying with the company for a specified period of time. An option, for example, may be unexercisable until it is vested. For further discussion on employee stock options and related accounting treatment, see, e.g., Jeremy Bulow & John B. Shoven, *Accounting for Stock Options*, 19 J. OF ECON. PERSPECTIVES 115, 116 (2005), available at <http://ssrn.com/abstract=521882> ("If the worker leaves the firm before his or her options have vested, then the options are forfeited (that is, they are worthless and cannot be exercised). . . . [S]imilar retention incentives could be achieved with restricted stock grants (grants of stock with vesting occurring over time).").

²⁰An option is considered to be out-of-the-money when the exercise price is higher than the price of the underlying stock. As long as the option is out-of-the-money, it is not worth exercising and the option may expire and have no value. An option that is out-of-the-money is also referred to as "underwater." See, e.g., *id.* ("Call options are termed in-the-money if the stock is selling for more than the exercise price and out-of-the-money if the stock is selling below the exercise price. . . . For out-of-the-money options, the intrinsic value is zero.").

²¹It may be noted that Section 403 of the Sarbanes-Oxley Act (SOX) curtails the practice of backdating of option grants. 15 U.S.C.A. § 78p (2002). By restricting backdating, SOX increases, on average, the exercise price of options and thus also increases the likelihood that the option will remain out-of-the-money when it vests.

²²Appendix A lists all the variables used, including the Entrenchment Index.

²³See, e.g., Leo E. Strine, Jr., *Toward a True Corporate Republic: A Traditionalist Response to Bebchuk's Solution for Improving Corporate America*, 119 HARV. L. REV. 1759 (2006) (commenting on Bebchuk, *supra* note 12).

²⁴See Bebchuk, *supra* note 12, at 855 (finding no rush to destagger even when the majority of shareholders support destaggering in consecutive annual meetings).

²⁵The statistical results of this study, a positive correlation between shareholder resolutions and management decision to destagger, suggest that the shareholders do have an informal power to

This study also contributes to the current discussion on the decoupling of management compensation and performance. This discussion emphasizes the need for improving managerial accountability and connecting management compensation with performance.²⁶ While I do not find evidence that straight equity compensation helps management to focus on the shareholders' interests, I do find statistically significant evidence that unvested, including out-of-the-money stock options, motivate the managers to destagger. This suggests only certain types of equity help connect the CEO's compensation with the performance of the company and provide motivation to increase the shareholders' welfare. This finding highlights the importance of specifically tailored performance-based compensation to aligning the interests of management and shareholders, and it demonstrates the weakness of straight equity.

The remainder of the article proceeds as follows. Part II provides a short review of the relevant literature. Part III presents the hypotheses that may describe the managers' approaches towards destaggering. Part IV describes the database used and the statistical analysis conducted to test the various hypotheses. The statistically significant results of the tests are described in Part IV.B.3. Part V checks the market reaction to the decision to destagger. This part begins with a presentation of the possible connection between the managers' decision to destagger and the market's anticipated reaction. It proceeds with tests for abnormal returns following management announcements of plans to destagger. Part VI concludes.

II. LITERATURE REVIEW

The literature on antitakeover defenses has described the significant role that staggered boards play in entrenching management.²⁷ Staggered boards are believed to offer the most powerful antitakeover defense a manager can employ.²⁸ Empirical studies have found staggered boards lower

destagger, albeit a limited one.

²⁶See generally Lucian A. Bebchuk & Jesse M. Fried, *Pay Without Performance: Overview of the Issues*, 30 J. CORP. L. 647 (2005) (analyzing the role managerial power and influence has in shaping executive compensation).

²⁷See, e.g., Bebchuk et al., *supra* note 2, at 890 ("[Analyzing] how staggered boards make it extremely difficult for a hostile bidder to gain control over the incumbents' objections.").

²⁸See *id.* at 950. ("Effective staggered boards are the most powerful antitakeover device in the current arsenal of takeover defense weapons."). Cf. Robert Daines & Michael Klausner, *Do IPO Charters Maximize Firm Value? Antitakeover Protection in IPOs*, 17 J.L. ECON. & ORG. 83, 116-17 (2001), available at <http://ssrn.com/abstract=187348> ("The most restrictive [antitakeover protection] is either dual-class or a staggered board combined with prohibitions on voting by written consent and prohibitions on shareholders calling a special meeting. . . . The second most restrictive . . . is a staggered board without shareholder voting restrictions.").

the probability of CEO turnover, and the sensitivity of both CEO compensation and CEO turnover to the performance of the company.²⁹

Studies have also found an effective staggered board almost doubles the probability that a target company (a company that is faced with a hostile bid) will remain independent.³⁰ The studies have further found staggered boards are associated with reduced returns for target companies' shareholders in comparison with the proceeds of accepting the hostile bid.³¹ In addition, the market value of companies with staggered boards was lower than that of companies that did not have staggered boards.³²

Yet, studies show the majority of large public companies in the U.S. have adopted staggered boards.³³ Since charter provisions usually establish these staggered boards, the shareholders are incapable of unilaterally changing the structure of the board.³⁴ Not surprisingly, studies report an increase in the number of shareholder proposals in recent years asking the board to repeal staggered boards.³⁵ However, empirical studies have found classified boards are less likely to implement shareholder-approved proposals.³⁶

To be sure, a board of directors that strips itself of an entrenchment mechanism, especially a potent one such as the staggered board, becomes more vulnerable and may become easy prey to a raider conducting hostile takeovers. Why would management of certain companies choose to destagger? The repeal of an existing staggered board seems counter to the self-interest of the board,³⁷ and from an economic perspective looks *prima facie* like irrational conduct. What could drive the managers to act in a way that appears to hurt their own interest? I offer several explanations for this puzzle as I proceed and analyze possible hypotheses in the following section.

²⁹See Faleye, *supra* note 8, at 522-26 (studying the effect of staggered boards on firm value, CEO compensation, and CEO turnover).

³⁰See Bebchuk et al., *supra* note 2, at 931 (stating effective staggered boards "nearly double the average target's odds of remaining independent, from 34% to 61%") (emphasis added).

³¹See *id.* at 939 ("[A]n [effective staggered board] reduces target shareholder returns on the order of 8-10% in the nine months after a hostile bid is launched.").

³²See Bebchuk & Cohen, *supra* note 3, at 410 (finding companies with staggered boards have significantly lower market value as represented by Tobin's Q).

³³See Bebchuk et al., *supra* note 2, at 895.

³⁴See *id.* at 894 (noting in all states, nonminor changes to the provisions of the charter, such as repealing a staggered board, require the approval of both the board and the shareholders). See, e.g., DEL. CODE ANN. tit. 8, § 242(b)(1)-(2) (2005).

³⁵See Bebchuk et al., *supra* note 2, at 891; see GEORGESON SHAREHOLDER, ANNUAL CORPORATE GOVERNANCE REVIEWS, *supra* note 17.

³⁶See Faleye, *supra* note 8, at 526-27.

³⁷See *id.* at 528 (suggesting managerial self-serving purposes partially explain the adoption of staggered boards).

III. HYPOTHESES—REASONS BEHIND BOARDS' DRIVE TO DESTAGGER

In order to understand why some boards choose to destagger, I empirically compare certain characteristics of companies with staggered boards that chose to destagger in 2004 and 2005 with companies that remained staggered during the same period, as described in Part IV below. The characteristics fall into two sets of theoretical hypotheses that attempt to explain the motivation of boards that choose to destagger. The following sections describe and analyze these hypotheses.

The first set of the hypotheses, discussed in Part III.A, focuses on the ability of shareholders to influence the board and the efficacy of precatory resolutions. The second set, analyzed in Part III.B, looks at factors affecting the CEO's interests in the structure of the board and in the value of the firm.

A. Shareholder Pressure

Shareholders generally do not control the company and are limited in their ability to decide the fate of their company.³⁸ While the shareholders are deprived of a formal right to destagger the board, since such a decision must also be approved by the board itself,³⁹ the shareholders may be able to steer the board in informal ways toward the position they favor. For example, shareholders may use the withholding vote mechanism and the media to pressure the board.⁴⁰

Refusal by the board to acquiesce to shareholders' nonbinding requests to destagger may be a precursor to further shareholder pressure mechanisms. Thus, there may be a correlation between shareholder pressure in the form

³⁸See Bebchuk, *supra* note 12, at 836; Robert B. Thompson & D. Gordon Smith, *Toward a New Theory of the Shareholder Role: "Sacred Space" in Corporate Takeovers*, 80 TEX. L. REV. 261, 261 (2001) ("[S]hareholders have a very difficult time actually making any corporate decisions.").

³⁹Typically, the staggered structure of the board is established in the company's charter, as we have seen above. Amendments to such charter provisions require the board's approval. See Bebchuk *supra* note 2, at 894.

⁴⁰See Floyd Norris, *Corporate Democracy and the Power to Embarrass*, N.Y. TIMES, Mar. 4, 2004, at C1. An example of a successful vote-withholding tactic that won substantial media coverage is the one that cost Michael Eisner his chairman seat on Disney's board:

Mr. Eisner, the chairman and chief executive of Disney, had 43 percent of the votes withheld from him in his re-election as director. . . . [I]n corporate democracy, where competing candidates almost never get onto ballots for director, it is deemed embarrassing to have even 5 percent of the votes withheld.

By that standard, Mr. Eisner suffered a great humiliation and within hours the chastened Disney board voted to replace him as chairman while keeping him as chief executive.

of precatory resolutions calling for board destaggering and management's decision to destagger.

While shareholders' precatory resolutions are not binding, they may pressure boards to acquiesce. Board compliance might be motivated by reputational concerns. Refusal to comply, for example, may make it harder to extract higher rents because of media focus on the company's corporate governance and heightened institutional shareholder scrutiny.⁴¹ Such refusal may also affect the stock price negatively, increasing the company's cost of finance and directly affecting managers' personal interests to the extent they own company equity.⁴² In case the board ignores their request, shareholders may resort to the vote-withholding mechanism.⁴³ Fearing the outcome of defiance, a board is likely to be more willing to destagger following a shareholder precatory resolution that asks to repeal the staggered board. Thus, this would suggest a positive correlation between the probability a company destaggers its board and the existence of a precatory shareholder resolution asking the board to destagger in the last annual meeting.

Shareholders may initially request the board informally to destagger, before bringing the proposal to the annual meeting. If the request is favorably treated, it will not be followed by a precatory resolution, and negative media coverage will be prevented.⁴⁴ However, a board that does not comply with the shareholders' informal request to destagger, knowing a precatory resolution will follow, may not be concerned with the ramifications

⁴¹See, e.g., Alexander Dyck & Luigi Zingales, *The Corporate Governance Role of the Media 5* (Ctr. for Research in Securities Prices, Working Paper No. 543, 2002), available at <http://ssrn.com/abstract=335602> ("[T]he media do play a role in shaping the public image of corporate managers and directors, and in so doing they pressure them to behave according to societal norms."); Alexander Dyck & Luigi Zingales, *Private Benefits of Control: An International Comparison*, 59 J. FIN. 537, 577 (2004) (showing a connection between diffusion of the press and amount of corporate value appropriated by insiders); Bang Nguyen-Dang, *Is More News Good News? Media Coverage of CEOs, Firm Value, and Rent Extraction 5-6* (AFE/ASSA 2006 Boston Meetings, Nov. 2005), available at <http://ssrn.com/abstract=800746> (associating higher levels of media coverage of CEOs with higher CEO pay, particularly incentive or equity-based pay, and longer tenure).

⁴²See Bebchuk & Cohen, *supra* note 3, at 409-10; Faleye, *supra* note 8, at 506-11 (providing evidence the stock price and firm value of companies with staggered boards is lower); see also *infra* Part V (discussing statistical evidence of positive market reaction to the decision to destagger).

⁴³See, e.g., Institutional Shareholder Services, *This Week in Governance Transcript Week of Apr. 25-29*, at 3, available at <http://www.issproxy.com/twig/transcripts/April272005.pdf> (reporting the use of vote withholding as retaliation for management ignoring precatory resolutions asking to destagger the board).

⁴⁴In fact, by including both destaggering decisions that were initiated by the shareholders' informal request with the other destaggering decisions that did not have a prior precatory shareholder resolution, we increase the likelihood of a false negative result of the influence of shareholder pressure on managers' decisions when using the precatory shareholder resolution as an indicator for shareholder pressure in the regressions.

that are likely to ensue.⁴⁵ Thus, an alternative and opposite hypothesis to the one presented before will view the precatory shareholder resolution as a sign of the board's strong conviction against destaggering.

Further, it may be that the board will try to fend off an attempt by shareholders to destagger in the hope it is motivated only by a passing trend and that interest will wane with time. Persevering shareholders who repeatedly demand to destagger may ultimately influence reluctant boards. The cumulative shareholder requests over the years may cause the board to realize that the refusal to destagger has a lasting effect on the company and, consequently, decide to destagger. Thus, this would suggest a positive correlation between the probability that a company destaggers its board and the existence of numerous shareholder precatory resolutions asking the board to destagger in the years preceding the last annual meeting.

Alternatively, companies that refused to comply with shareholders' requests to destagger in the past may tend to ignore their shareholders' requests in the future as well. This is because prior behavior of the board may be an indication of its future reaction to the same appeal by the shareholders. Everything else being equal, a board that felt secure and did not feel compelled to follow its shareholders' request in the past, when facing the same choice again, may be making the same decision—not to be attentive to its shareholders.

However, pressure from shareholders to destagger does not appear to be the only reason why some boards decide to destagger. Some companies did not have any precatory shareholder resolution asking the board to destagger before the board itself brought a proposal to destagger to the shareholders' vote.

While Thomas and Cotter find a general increase in "board responsiveness" to shareholder proposals between 2002-2004, they report boards agreed to destagger in thirty-one cases out of 103 proposals or 30%.⁴⁶ Of the thirty-four companies in my sample whose board decided to destagger in 2004-2005,⁴⁷ only twenty had a prior precatory shareholder resolution asking the board to destagger in the years 1997-2004.⁴⁸ Only seven of the companies destaggered the board following only a single

⁴⁵A request to destagger that is brought by a small shareholder may not present a threat to the board. The board may want to try to persuade the shareholders that a staggered board serves the interests of the shareholders better, and may check the response of the majority of the shareholders before deciding to change the structure of the board. Refusal to fulfill the request of a large institutional investor, on the other hand, is more likely to bring bad publicity.

⁴⁶See Thomas & Cotter, *supra* note 13, at 28, 33, 376.

⁴⁷See *infra* Part IV (describing the sample used in the regression tests).

⁴⁸The relevant reviews are from the years 1997-2004. See GEORGESON SHAREHOLDER, ANNUAL CORPORATE GOVERNANCE REVIEWS, *supra* note 17.

precatory resolution in the year before, rather than multiple consecutive resolutions in past years.⁴⁹ Of the fifty companies in my sample that had a precatory shareholder resolution in the prior annual meeting, only fifteen destaggered.⁵⁰

In fact, the apparent general incompetence of shareholders to pressure management has led to the reevaluation of precatory resolutions. In 2003, the SEC proposed new rules that, *inter alia*, would "require companies to include in their proxy materials security holder nominees for election as directors [following a failure to implement] a security holder proposal that receives more than 50% of the votes cast."⁵¹ This proposal, however, received strong objections by commentators who argued it may not be in the company's best interest,⁵² and so far the proposal has not been implemented.

Thus, I now turn to explore additional factors that may influence managers in favor of destaggering of the board.

B. *Agent's Interests*

In the previous section, I discussed shareholder pressure as a potential explanation for why the manager is obliged to destagger. In this section, I consider the manager's own interests in the destaggering act. I put forward factors that help form the manager's personal position towards destaggering.

First, I look at what the manager stands to lose from destaggering. Next, I examine what the manager can personally gain from destaggering. The manager's decision whether or not to destagger may be a tradeoff calculation—a comparison of her expected costs of destaggering with her expected benefits.

1. Potential Loss—Yearly Compensation Flow

If the board destaggers, the CEO will face an increased risk of being replaced. If replaced, the CEO will lose future benefits and compensation.⁵³ High CEO annual benefits increase the CEO's interest in prolonging the current board structure that helps entrench her position and secures her

⁴⁹*Id.*

⁵⁰*Id.*

⁵¹Security Holder Director Nominations, Exchange Act Release No. 34-48,626, Investment Company Act Release No. 26,206, 68 Fed. Reg. 60,784 (Oct. 23, 2003), at *13, *15, *40 (Mar. 5, 2004), available at <http://www.sec.gov/rules/proposed/34-48626.pdf>. A failure to implement such shareholder proposal is referred to by the SEC as the "third triggering event."

⁵²*Id.* at *20, *48, *51.

⁵³Assuming that finding an alternative comparable position in the labor market is difficult once the CEO is replaced.

future payments. The yearly compensation, in the form of wages, bonuses, and equity grants, is an estimate of the future yearly pecuniary compensations CEOs risk losing following destaggering. Thus, the higher the yearly compensation, the greater the CEO's incentive to entrench and the greater the CEO's incentive to keep the board staggered.⁵⁴ This hypothesis, however, should be qualified—if the CEO's benefit from destaggering is also proportional to her yearly compensation, then changes in the yearly compensation do not affect her decision whether to destagger.

Alternatively, a manager who receives higher compensation may have more confidence in herself⁵⁵ and, thus, may perceive a lower risk of being replaced (or not being able to find an alternative employment) once a hostile takeover takes place. If the destaggering decision allows the manager to continue to receive higher compensation, the manager may calculate a positive total expected value from destaggering. This may be the case especially with managers who have higher self-esteem and perceive lower risk of actually being replaced.

We can divide managers into two types: those who believe they are better and those who believe they are less good or even bad managers. The bad ones are more susceptible than the better managers to being replaced when not entrenched. And, because of their quality as managers, the better managers face a lower risk of being replaced when they are not protected by antitakeover mechanisms and entrenchment tactics. As a result, it is cheaper to compensate the better managers for their expected loss of being replaced than to compensate the bad ones.

Thus, managers who perceive themselves as better may agree to destagger and face the added risk of being replaced for less compensation than managers who believe less in their own managerial abilities.⁵⁶ This is because the latter need more compensation to offset the expected loss. Voluntary destaggering may also be viewed as a signal by the managers that they believe the risk of being replaced is lower, so they agree to strip off their protection for a low compensation. However, managers who believe their managerial skills are better will assume the risk of destaggering only if currently they are unable to increase or retain the level of personal benefits extracted from the corporation without destaggering. For example, public

⁵⁴ Assuming decreasing marginal utility, the relation between the aggregate compensation and the likelihood of destaggering may be described by a convex function.

⁵⁵ Cf. Robert Daines et al., *The Good, the Bad, and the Lucky: CEO Pay and Skill* 27 (Univ. of Pa. Law Sch., Inst. for Law & Econ., Research Paper No. 05-07, 2005), available at <http://ssrn.com/abstract=622223> (studying the positive correlation between CEO pay, particularly performance-based pay, and CEO skill).

⁵⁶ Cf. *id.* at 24 ("[T]here are fewer instances of CEO turnover following good performance.").

outrage may stop managers from increasing their salaries, and managers may even face shareholders' demands to decrease their salaries. Otherwise, managers do not benefit from destaggering while they face an increased risk.

A high salary, then, may indicate (1) it is harder for the manager to increase her salary further because of public scrutiny, and (2) she believes she has better skills that justify her high salary. To the extent this is the case, it may be argued that the higher the CEO's total yearly compensation, the higher the probability of destaggering.

It has to be noted that a positive correlation between a CEO's compensation and shareholder pressure may exist. Excessive compensation may motivate the shareholders to ask management to destagger, in order to increase the monitoring of management. Thus, it is possible managers with higher compensation tend to destagger more than those with lower compensation, because the higher compensation triggers shareholder pressure. It may be shareholder pressure is responsible for the destaggering decision, rather than a direct causal link between the compensation and the destaggering. Higher yearly compensation than is customary in the market may be subject to scrutiny and be susceptible to pressure. In an attempt to justify the excess payments and to divert the public focus, managers may decide to destagger. The destaggering may be used to justify a continued extraction of higher rents by managers in the future as well. The higher future compensation may also serve as compensation for the added managerial risk of being replaced.

Regardless of the magnitude of the manager's annual compensation, however, the closer she is to retirement the less interest she may have in entrenching herself in the office. The potential loss from being replaced is smaller with the decrease in the amount of years the CEO may serve. Thus, a relatively old CEO age may indicate a shorter remaining managerial life span and a potential decrease in the importance the manager attributes to her annual salary or the threat of being replaced. Thus, this would suggest a positive correlation between the proximity of the CEO to retirement and the probability of destaggering.

On the other hand, age may play a role in the CEO's ability to find alternative employment if she is replaced before retirement. To the extent younger managers are more likely to find a compatible job once replaced, a negative correlation between the CEO's age and the probability to destagger may exist.

In addition to the size of the potential cost the CEO may incur should the company destagger, the expected cost to the CEO is affected by the increased probability of CEO replacement. Certain company characteristics may affect the probability of a change in control following the destaggering.

Thus, company characteristics, such as its performance, may influence the destaggering decision.

For example, when a company is performing better than the market, e.g., has a higher stock return than the relevant industry, it may face a lower risk of takeover. This may be because, in such event, it is less lucrative for a raider to obtain control for two general reasons: (1) when the stock price is relatively high, it is more expensive to buy the company and requires more funding; and (2) when the company performs well, there is less value to be created by improving the operations of the company. Thus, when the company performs better than the market, the manager may destagger yet face a relatively low risk of being replaced, as long as the company continues to outperform the market.⁵⁷

2. Potential Gain—Value of Equity Holdings

Equity holdings may serve to align the interests of the agent-CEO with those of the principal-shareholders. The importance of equity compensation as an incentive that motivates the manager to increase the shareholders' value rather than her own rents has been debated in the literature.⁵⁸ Thus, I check the hypothesis that the higher the percentage holdings of the manager, the more she internalizes the benefits of the anticipated increase in the company's value following destaggering.⁵⁹

⁵⁷Similarly, the CEO faces a lower expected cost of destaggering when other antitakeover mechanisms are in place. A higher Entrenchment Index, defined by Bebchuk, Cohen, and Ferrell to include the six salient antitakeover mechanisms, denotes a low probability of a change in control following destaggering, because of the additional protection. See Bebchuk, *supra* note 12, at 900; Lucian Arye Bebchuk et al., *What Matters in Corporate Governance?* 2 (John M. Olin Ctr. for Law, Econ., and Bus., Harvard Law Sch., Discussion Paper No. 491, 2004), available at <http://ssrn.com/abstract=593423>. Such low probability implies the manager faces a lower expected cost of destaggering. Thus, a higher Entrenchment Index may indicate a higher probability the manager will destagger.

⁵⁸See, e.g., Lucian Arye Bebchuk et al., *Managerial Power and Rent Extraction in the Design of Executive Compensation*, 69 U. CHI. L. REV. 751, 763, 783-86 (2002) (criticizing prevailing equity compensation practices for providing suboptimal incentives); John E. Core et al., *Executive Equity Compensation and Incentives: A Survey*, 9 ECON. POL'Y REV. 27, 32 (2003), available at <http://ssrn.com/abstract=794806> (surveying literature on relation between CEO's stock-based compensation and her incentive to increase stock price); Eli Ofek & David Yermack, *Taking Stock: Equity-Based Compensation and the Evolution of Managerial Ownership*, 55 J. FIN. 1367, 1367-68 (2000) (reporting managers can hedge the risk of equity-based compensation, yet companies justify the use of equity incentive compensation by arguing it helps reduce agency problems).

⁵⁹Studies showing companies without staggered boards having higher Tobin's Qs support the assumption that the stock price will increase as a result of the destaggering (see, e.g., Bebchuk & Cohen, *supra* note 3). In Part V, I study the effect of board destaggering announcements and find suggestive evidence of positive cumulative abnormal returns.

The CEO's equity holdings help to create an interest in the increase of the company's value, or at least in the stock price (the perceived market value of the company). Because the market reacts positively to destaggering decisions,⁶⁰ higher equity holdings may positively affect the CEO's incentive to destagger. The CEO's percentage holdings indicate how much of the increase in the company value the CEO will internalize. Similarly, the actual value of the CEO's equity holdings may motivate the manager to increase the value of the company. The more the CEO's equity is worth, the greater the value increase the CEO may enjoy following the destaggering.⁶¹ This would suggest a positive correlation between the CEO's equity holdings and the probability of destaggering.

Furthermore, different types of equity compensation vary in the extent of the connection between the value of the compensation and the performance of the company. To be sure, the value of all equity is generally linked to the value of the company. Some types of securities, however, have restrictions and characteristics that strengthen the connection between their value and the manager's performance. Restrictions on vesting and high exercise prices of options are examples of compensation mechanisms aimed at motivating managers by increasing the connection between future performance and compensation.

A regular stock may gain or lose value over a course of time based on the price at which it is traded on the market. As long as the manager holds the stock and does not sell it, the volatility in the stock price may not reflect a real loss or gain. An option, on the other hand, is different because it has an expiration date. If the option is not exercised before it expires, it is worth nothing. An option is considered to be out-of-the-money when the exercise price is higher than the price of the underlying stock. As long as the option is out-of-the-money, it is not worth exercising and the option may expire with no value. Thus, a manager who has options that are out-of-the-money may have an increased incentive to cause the stock price to rise before the option expires.⁶²

In addition, a vesting restriction subjects the security to a holding period during which the manager has to stay with the company. Should the manager's employment with the company terminate before the security is vested, i.e., before the vesting period has lapsed, the manager will lose the

⁶⁰See *infra* Part V.

⁶¹This relationship may be described by a convex function if the manager experiences decreased marginal utility from her equity.

⁶²It may be noted that the likelihood an option will be out-of-the-money before it is vested is higher if the company granted the option after Section 403 of the Sarbanes-Oxely Act became effective. See *supra* note 21.

right to her still unvested security. However, vesting agreements usually include an acceleration provision that is triggered upon a change in control of the company. The acceleration provision provides for the immediate vesting of unvested securities once a change in control takes place. Immediate vesting may provide an incentive for managers to favor a change in control which staggered boards inhibit.

Assuming the stock price is volatile, if the option is vested, the manager can exercise it as soon as the option is in-the-money and thereby avoid the risk that the future stock price will plunge causing the option to expire unexercised. Conversely, if the option is unvested, the manager needs to make sure it will be in-the-money when it is exercisable and before it expires in the future. Thus, an unvested out-of-the-money option increases the manager's personal interest in the company's long run value. Since studies have found companies without staggered boards have higher stock prices,⁶³ the above may suggest a correlation between the amount of unvested out-of-the-money options the manager has and her motivation to destagger. Thus, I consider the hypothesis that an increase in the CEO's unvested equity that is out-of-the-money increases the probability of destaggering.

3. Cost and Benefit Tradeoff

The previous sections presented hypotheses regarding potential costs and benefits the manager faces from destaggering. An increase in the perceived cost of destaggering will deter the manager and decrease the likelihood she will destagger. On the other hand, an increase in the benefit the manager may expect to enjoy following destaggering may increase the likelihood she will favor destaggering. The manager may base her decision whether or not to destagger on the relative magnitude of her costs and benefits from destaggering.

Thus, the higher the ratio between the manager's yearly compensation and her equity, the more likely it is she will not destagger. And, the lower that ratio, the higher the probability the manager will destagger the board. This suggests a negative correlation between the ratio of the CEO's yearly compensation and equity holdings and the probability of destaggering.

⁶³See Bebchuk & Cohen, *supra* note 3, at 410; Faleye, *supra* note 8, at 511.

IV. HYPOTHESES TESTING

We now turn to test the characteristics of managers who volunteer to destagger. Using the data described in the following section, I identify two sets of companies: companies with staggered boards that did not destagger, and companies that did destagger their board. Employing probit regression tests, I check several possible explanatory variables to test the hypotheses presented in the previous part. In Part IV.A, I describe the data collection method and the sample used for the statistical tests. In Part IV.B, I describe the statistical tests and the results. The key findings of the statistical tests are summarized in Part IV.B.3.

A. Data

The sample contains a total of 992 observations drawn from a list of 509 companies. Of those companies, thirty-four had destaggered their boards either in 2004 or 2005. The remaining 475 companies had staggered boards in both years. For the companies that decided to destagger, I collected data for the years preceding the decision. For each year, I then collect comparable data for companies that did not destagger in the same year, in an attempt to find significant differences.

In Part IV.A.1, I describe the selection process of the companies in the sample. Part IV.A.2 provides an explanation of the data used to derive the observations for the probit regression tests.

1. Identifying the Companies

a. *Companies with Staggered Boards*

I begin by identifying companies that had staggered boards in 2003. I use data from the Investor Responsibility Research Center (IRRC) posted on Lucian Bebchuk's website⁶⁴ to compile a list of companies that had staggered boards in 2002 (the IRRC database does not include 2003). Using the Education Department General Administrative Regulations (EDGAR) database,⁶⁵ I identify companies that destaggered in 2002 or 2003, and I exclude those companies from the initial list, to obtain a list of companies that had staggered boards throughout 2003.

⁶⁴Data on Staggered Boards, 1990-2002, available at <http://www.law.harvard.edu/faculty/bebchuk/data.shtml>.

⁶⁵See SEC Filings & Forms (EDGAR), available at <http://www.sec.gov/edgar.shtml>.

From the companies that had staggered boards throughout 2003, I further exclude companies that were included in one of four sets of companies with special structures. These special structures, described below, include: (1) financial trading companies, (2) dual class companies, (3) companies with CEOs who have significant beneficial ownership, and (4) bylaws-based staggered boards. The special structure may bias the study of the managers' motivation to destagger, because it may defuse the key role of the staggered structure.

Thus, by looking at the four-digit Standard Industrial Classification Code (SIC Code) of the companies, I identify companies categorized as "financial trading," such as real estate financial trusts (REITs), and exclude them from the sample, as they may have a special corporate governance structure.⁶⁶ Following Bebchuk and Cohen, I further exclude from the list companies with a dual class capital structure. This type of structure, rather than the board structure, may be central in entrenching the CEO.⁶⁷

A small number of companies that are part of the data are characterized by an abnormally high CEO percentage holding (outliers). For example, in one of the companies, the CEO has beneficial ownership of more than 50% of the shares.⁶⁸ In such cases, the staggered structure of the board is immaterial since the CEO has such extensive power over the company that she does not need the staggered structure to secure her position and her decision to destagger is not puzzling. To learn more about the motivation of CEOs as agents, I leave in the sample only companies with managers who have less than 10% beneficial ownership. In this sub-sample, the staggered structure plays a more significant role in the CEO's entrenchment.⁶⁹

Further, like Bebchuk, Coates, and Subramanian, I distinguish between weak staggered boards and more restrictive staggered boards.⁷⁰ If the staggered board provisions are found in the bylaws, rather than the

⁶⁶See, e.g., Bebchuk & Cohen, *supra* note 3, at 418 (excluding REITs from the sample because such corporations "have their own special governance structure and entrenching devices"); Robert Daines, *Does Delaware Law Improve Firm Value?*, 62 J. FIN. ECON. 525, 530 (1989), available at <http://ssrn.com/abstract=195109> (omitting financial firms from the tested sample because the special federal regulations may influence the corporate governance of such firms).

⁶⁷See Bebchuk & Cohen, *supra* note 3, at 418 ("We exclude firms with a dual class structure; in such firms, the holding of superior voting rights is likely to be the key for entrenching incumbents.").

⁶⁸The CEO's beneficial ownership is denoted by ExecuComp by SHROWNPC. See ExecuComp Data Definitions by Table, *infra* note 80.

⁶⁹Indeed, when companies with 40% and higher CEO beneficial ownership are included in the sample, the explanatory variable that measures the CEO's percentage holdings becomes significant in the regressions.

⁷⁰See Bebchuk et al., *supra* note 2, at 894-95.

company's charter, the shareholders might, in theory, be able to change the provisions themselves. Thus, such staggered boards present less of a problem for the shareholders. If companies had only weak staggered boards, then management would not lose much protection when the board is destaggered. Thus, I use the data posted on Lucian Bebchuk's website (originated from the IRRC data base), complemented by a check of SEC filings as reported on EDGAR,⁷¹ when needed, to identify the companies in the sample that have only bylaw-based staggered boards.⁷² I omitted all the companies in the sample that did not have charter-based staggered boards.⁷³

b. *Companies that Destaggered*

Next, I use Geogeson Shareholder's lists of companies that destaggered in 2004 and 2005 following the board's recommendation.⁷⁴ As with the list of companies with staggered boards, I focus only on those companies that are nonfinancial companies which do not have a dual class structure. I exclude companies that did not have charter-based staggered boards and companies with a CEO having a beneficial ownership greater than 10%.⁷⁵ I also exclude two companies for which the destaggering resolution had been initiated as either part of an investment transaction or a lawsuit settlement.⁷⁶

Among the companies, I identify two which had been beneficially owned by the same person.⁷⁷ Including both might introduce correlation in the error and contradict the basic assumption of nonautocorrelation of the linear regression model. Therefore, to avoid bias in the results, I exclude

⁷¹See SEC Filings & Forms (EDGAR), *supra* note 65.

⁷²See Data on Staggered Boards, 1990-2002, *supra* note 64. Of the companies in the unrestricted sample that destaggered in 2004-05, only five had bylaws-based boards. *Id.*

⁷³The results of the statistical tests do not differ substantially when running with or without the bylaws-based staggered boards. Because the number of observations decreased, however, the significance level of the estimated coefficients decreased.

⁷⁴See GEORGESON SHAREHOLDER, 2004 ANNUAL CORPORATE GOVERNANCE REVIEW, *supra* note 15; GEORGESON SHAREHOLDER, 2005 ANNUAL CORPORATE GOVERNANCE REVIEW, *supra* note 16.

⁷⁵Similarly, I also do not include Gartner Inc. which not only destaggered in 2005 but also combined its two classes of stock into one at the same time. *Id.* This is because these notable disentrenching measures fade in light of a block holder of Gartner who not only owns one-third of the combined equity capital of the company with regular election rights but also has special contractual rights to appoint two directors.

⁷⁶These companies are National Medical Health Card Systems and Cendant. In the case of National Medical Health Card Systems, the destaggering resolution was brought to the shareholders' vote as a condition of an investment transaction by an acquirer that eventually resulted in a change in control. Cendant's resolution seems to have been influenced by a lawsuit settlement with a shareholder following an accounting scandal in 1998.

⁷⁷These two companies are Westcorp and WFS Financial Corporation.

one of the two companies from the sample.⁷⁸ I also do not include another company because it is structured as a trust.⁷⁹

2. Explanatory Variables

For each individual company on the list described in the previous section, data falling into one of the following three categories is gathered: (1) information on precatory shareholder resolutions; (2) information on the CEO; and (3) company characteristics which include performance variables and the company's Entrenchment Index, where available. The data derives mainly from the following sources: the Georgeson Shareholder's annual reports, the ExecuComp database, Compustat[®] database, and the IRRC database.⁸⁰ Appendix A provides a concise list of all the types of data ultimately used in the regressions as explanatory variables.

Using the Georgeson Shareholder's annual reports, I extract data about precatory shareholder resolutions calling the company to destagger in the years 1999-2004. I define a binary variable "PSR" to indicate whether the shareholders passed a precatory resolution to destagger in the annual meeting preceding the board's decision to destagger. "TPSR" denotes the number of precatory resolutions the shareholders passed in the four years prior to the annual meeting preceding the board's decision to destagger.⁸¹ "WTPSR" sums the same shareholder resolutions as TPSR while assigning different weights to each resolution based on the year the resolution was passed.

⁷⁸It should be noted there might be some autocorrelation in the sample, because I look at the same staggered companies in 2004 and 2005 for those companies that did not destagger in 2004. The errors of those companies may be correlated. However, since the number of staggered companies is so much larger than the number of destaggered ones, and the possible correlation is only between companies that were staggered in both years, the effect, if any, of the autocorrelation, is negligible. Because the number of destaggered companies is relatively very small compared with the number of staggered companies, the effect of the latter on the standard deviation of the slope is suppressed. Furthermore, the original study, which was conducted on the limited 2004 sample, before the 2005 data was available, provided similar statistically significant results.

⁷⁹This company is First Union Real Estate.

⁸⁰I use data reported on Lucian Bebchuk's website to retrieve data about the corporate governance arrangements of the companies that originated from the IRRC governance database. See Data on Staggered Boards 1990-2002, *supra* note 64; ExecuComp Data Definitions by Table, *supra* note 80, available at http://mi.compustat.com/docs-mi/help/execdefs_table.htm#COMPTABL; GEORGESON SHAREHOLDER, 2004 ANNUAL CORPORATE GOVERNANCE REVIEW, *supra* note 15; GEORGESON SHAREHOLDER, 2005 ANNUAL CORPORATE GOVERNANCE REVIEW, *supra* note 16; Standard and Poor's Institutional Market Services (Compustat[®]), available at <http://www.compustat.com>.

⁸¹For 2004 data, PSR is a binary variable indicating whether or not the shareholders passed a precatory resolution in 2003, and TPSR is the number of precatory resolutions calling for destaggering during 1999-2002. Similarly, for 2005, PSR indicates whether there was a precatory resolution in 2004, and TPSR is the sum of such resolutions during 2000-2003.

WTPSR assumes more recent resolutions influence the board more than earlier resolutions, and thus assigns greater weight to more recent precatory resolutions.⁸²

To check the hypotheses presented in Part III, in addition to collecting data about precatory shareholder resolutions, I extracted data on the CEO for the years 2003-2004 using the ExecuComp database for each company in the list described in the previous section. I look at the following characteristics of the companies: (1) the total compensation of the CEO in the year before the destaggering, denoted as "TDC";⁸³ (2) the percentage of the CEO's equity ownership in the company;⁸⁴ (3) the value and composition of the CEO's equity holdings (e.g., the worth of the securities as well as the amount of restricted shares and unvested options including out-of-the-money options);⁸⁵ (4) the tenure⁸⁶ of the manager as CEO;⁸⁷ and (5) the CEO's age at the beginning of the year of the destaggering.⁸⁸ Where ExecuComp does not provide sufficient information about a company, I either complement the

⁸²The weights, assigned arbitrarily, are: 40% to the most recent resolution, 30% to the previous resolution, 20% and 10% to the earlier resolutions, respectively.

⁸³The total yearly compensation is denoted by ExecuComp by TDC1. It includes: Salary, Bonus, Other Annual, Total Value of Restricted Stock Granted, Total Value of Stock Options Granted (using Black-Scholes), Long-Term Incentive Payouts, and All Other Total. See ExecuComp Data Definitions by Table, *supra* note 80.

⁸⁴I used ExecuComp's SHROWNPC, which is the percentage reported by the company in the proxy statement adjusted for options. *Id.* Since companies are not required to disclose less than 1% ownership, ExecuComp's SHROWNPC reports blanks when the percentage is not reported and is below 1%. Because this omission may bias the statistical results, I also calculated the CEO's percentage holding by dividing ExecuComp's SHROWN (shares owned) and SHROUT (total shares outstanding), adjusting for options. This quotient is a close estimator for the real percentage holding, since SHROUT is the number of shares as of the end of the fiscal year, while SHROWN is from a date closer to the proxy date. I obtained similar results when using either of these variables.

⁸⁵In addition to the value of shares owned by the CEO, I include the following variables from ExecuComp: RSTKHL, RSTKHLDV, UEXNUMEX, UEXNUMUN, INMONUN, and INMONEX. *Id.* For a description of these variables, see Appendix A.

⁸⁶The tenure of the manager along with her equity may indicate her control of the board and ability to resist shareholder pressure. See Malcolm Baker & Paul A. Gompers, *The Determinants of Board Structure at the Initial Public Offering*, 46 J.L. & ECON. 569, 586 (2003), who look at the manager's tenure and percentage holdings as an estimate for her bargaining power upon IPO of venture-capital backed companies. The outside director herself may have a personal interest in maintaining the board's staggered structure, to the extent it may help entrench her seat on the board. Such correlation between a staggered structure of the board and directors' tenure, however, was not found. Faleye reports electing directors to staggered terms has no significant effect on board turnover. Faleye, *supra* note 8, at 519.

⁸⁷I used the date the executive became CEO, as reported by ExecuComp, to calculate the CEO's tenure as of the beginning of 2004 or 2005, as applicable. ExecuComp Data Definitions by Table, *supra* note 80, at 19.

⁸⁸ExecuComp database shows the age of the executive (denoted by P_AGE_2) as of the date of the most recent filings reported on the database. I calculated the CEO's age as of January 2004 or 2005. *Id.*

database with information found on EDGAR filings and other sources available on LexisNexis (such as Forbes' information on CEOs, Standard & Poor's Register of Directors and Executives, and D&B's Hoover's Company Records),⁸⁹ or I exclude the company altogether from the database.

I also include, as an explanatory variable, Bebchuk, Cohen, and Ferrell's Entrenchment Index⁹⁰ which denotes how many out of the six salient antitakeover measures (including a staggered board) a company employs.⁹¹ The data posted on Lucian Bebchuk's website reporting the Entrenchment Index (as well as the IRRC database from which the Index is derived) does not cover the year 2003, as the data is biannual, and covers only even years.⁹² Thus, I check the influence of the Entrenchment Index only for a sub-sample of the companies—those companies that were staggered in 2004 and for which information about their Entrenchment Index was available. This sub-sample is comprised of 479 companies that were staggered in 2004, nineteen of which destaggered in 2005. However, this limited sample did not provide enough statistics to support or refute a correlation between the Entrenchment Index and the management's decision whether to destagger.⁹³

In addition, I use the Compustat[®] database to calculate certain company performance-related variables.⁹⁴ I look at the company's size measured by the log of the company's total assets, the book-to-market value of equity ratio, market value of assets-to-replacement cost of assets—Tobin's

⁸⁹All the Lexis sources are available at <http://www.lexis.com>.

⁹⁰See Lucian Arye Bebchuk et al., *supra* note 57, at 9-11 (reporting a correlation between the Entrenchment Index and both reduced firm value and lower stock returns). The measures included in the Entrenchment Index, in addition to staggered boards, are: supermajority requirements for mergers and/or for charter amendments, limits to shareholder bylaws amendments, poison pills, and golden parachute arrangements. *Id.*

⁹¹*Id.* A high Entrenchment Index indicates the company has significant antitakeover measures. When alternative entrenchment mechanisms to the staggered board are in place, the manager can feel the additional protection is sufficient to allow for destaggering without leaving her too vulnerable. However, since staggered boards present a powerful antitakeover defense, the existence of additional, less potent, entrenchment measures may not influence the managers' decision. In addition, without control of the board, a poison pill, which is one of the mechanisms in the Entrenchment Index, is not a strong protection because those who control the board can revoke the pill. While a poison pill complements the staggered board, limitation on charter amendments, for example, may be viewed as an alternative to the staggered board. The existence of a poison pill indicates the board that chose to have a pill in place is currently anxious about hostile takeovers, even though a pill can be implemented at any time without the shareholders' approval. For a discussion on poison pills, see Bebchuk et al., *supra* note 2, at 904-06.

⁹²See Data on Staggered Boards, 1990-2002, *supra* note 64.

⁹³Running the regressions with the larger sample that includes 2005, assuming the Entrenchment Index does not change in consecutive years, also does not show a significant connection between the Index and the decision whether to destagger.

⁹⁴See Standard and Poor's Institutional Market Services (Compustat[®]), *supra* note 80.

Q, and return on assets (ROA). Following Kaplan and Zingales; Gompers, Ishii, and Metrick; Bebchuk, Cohen, and Ferrell; and Bebchuk and Cohen, I measure Tobin's Q as the ratio of (1) the sum of the book value of assets plus the market value of common stock minus the sum of book value of common stock and balance sheet deferred taxes, and (2) the book value of assets. The industry-adjusted Tobin's Q is calculated as the company's Tobin's Q minus the median Tobin's Q in the firm's industry in the applicable year. Following Bebchuk, Cohen, and Ferrell, I identify a firm's industry by the firm's two digit primary SIC Code. I also look at the industry-adjusted values of the other performance variables. I calculate ROA as operating income before depreciation divided by total assets (measured once at the close of the prior year, and once as the average of the total assets in the year calculated as one-half of the sum of the total assets at the beginning and at the end of the year).

The final sample is comprised of a total of 503 companies having staggered boards throughout 2003, of which fifteen chose to destagger in 2004, and 489 companies having staggered boards throughout 2004, of which nineteen chose to destagger in 2005. Overall, the sample includes 992 observations, where each observation refers to a particular company for one particular year (2003 or 2004).⁹⁵

B. *Multi-Variable Probit Regression Testing*

Using the data described in the previous section, I check which of the explanatory variables, listed in Appendix A, influence the decision whether to destagger. For each of the variables that do, I calculate the direction and extent of the influence. The results of the regressions provide a means to weigh the likelihood of the hypotheses presented in Part III. Part IV.B.1 describes the probit regression tests used to check the hypotheses. Part IV.B.2 discusses controls for the statistically significant results. Part IV.B.3 summarizes the main statistically significant results of the tests performed.

1. Probit Regression

A probit regression test is especially designed for studying processes in which the results, i.e., the dependent variable, are binary.⁹⁶ In this test, the

⁹⁵When the performance variables were included, the sample was restricted to 969 observations for which data was available, out of which all thirty-four companies that destaggered in either 2004 or 2005 were included.

⁹⁶OLS multi-variable regressions, in which the dependent variable was the binary decision whether to destagger, provided similar results, in both direction of influence and statistical significance of the explanatory variables, to the results obtained using the maximum likelihood probit tests reported here. Similarly, statistical tests of the normalized means of the explanatory

influence of the explanatory variables on the binary result, the dependent variable, is analyzed. In our case the dependent variable, i.e., the manager's decision, is binary—the manager either decides to destagger or not. I thus check the influence of the explanatory variables on the binary decision to destagger or not.

The probit test models a decision process. Under the probit model, the decision to destagger is determined as follows. First, for each company i the model calculates a number Y_i that is a linear function of the explanatory variables:

$$Y_i = \alpha + \beta_1 \cdot \text{TDC}_i + \beta_2 \cdot \text{Age}_i + \beta_3 \cdot \text{Tenure}_i + \beta_4 \cdot \text{Equity}_i + \beta_5 \cdot \text{PSR}_i + \beta_6 \cdot \text{TPSR}_i + \beta_7 \cdot \text{EIndex}_i + \beta_8 \cdot \text{Performance}_i + \beta_9 \cdot \text{Year}_i \quad (1)$$

This formula (1) is schematic, and in the actual analysis, I distinguish between several types of equity (e.g., the percentage of equity holdings; the value of the equity; and restricted, as opposed to unrestricted, types of equity) and include separate firm performance variables. Appendix A contains a list of all the variables used.

In the linear function described by the formula above, $\alpha, \beta_1, \beta_2, \dots, \beta_9$ are fixed coefficients, common to all companies.⁹⁷ Then, a noise ε_i that is normally distributed with mean 0 and standard deviation 1 is added, and $Z_i = Y_i + \varepsilon_i$ is defined. Management then decides to destagger according to whether $Z_i > 0$ or not. Thus, given the explanatory variables, the probability to destagger can be estimated. Explicitly, the estimate for the probability to destagger is the probability that a standard normally distributed random variable, ε_i , will be bigger than $(-Y_i)$.⁹⁸ In the probit regression analysis, the optimal parameters $\alpha, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$, and β_9 , are determined by a maximum likelihood estimator.

The meaning of each of the β parameters can be described as follows: an increase by $(1/\beta_j)$ in the corresponding explanatory variable, e.g., an increase of $(1/\beta_1)$ in TDC, increases Y by one standard deviation. For example, if the result of Y for a given set of explanatory variables is zero, then the probability to destagger is 50% (the probability for a normally distributed random variable to be bigger than $(-Y)$, when $Y=0$). An increase by $(1/\beta_j)$ in the corresponding explanatory variable in this example increases

variables provided analogous results.

⁹⁷I use a dummy variable to indicate whether the data is for 2004 or 2005. This dummy year variable helps to neutralize any effects that are specific to a particular year. Inflation is also captured in this variable once we look at the log of monetary values, because the effect of inflation becomes an additive constant once the log is taken: $\log[X(1+r)] = \log(X) + \log(1+r)$ where X is the monetary value and r is the inflation rate.

⁹⁸This is the area to the right of $(-Y_i)$ under the Bell (Gaussian) curve.

the probability to destagger to 84% (the probability for a normally distributed random variable to be bigger than $(-Y)$, when $Y=1$). An additional increase by $(1/\beta_j)$ increases the probability to destagger to 98% (the probability for a normally distributed random variable to be bigger than $(-Y)$, when $Y=2$), and so on. The probit regression returns estimates for the parameters β_1, β_2, \dots that indicate the influence of each explanatory variable on the probability to destagger.

For explanatory variables that describe pecuniary interest, such as total compensation or equity, I also check a connection between the probability to destagger and the log of the explanatory variable. A convex function, such as log, simulates a decreasing marginal utility function, in which the effect of a marginal increase in the explanatory variable declines with the explanatory variable.⁹⁹

⁹⁹See *supra* note 54.

Table 1
The Decision Whether To Destagger—Probit Results

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|------------------------------|--------------------|-------------------|-------------------|-----------------------|-------------------|-------------------|--------------------|-----------------------|--------------------|------------------------|
| Intercept | -2.66 (1.03) | -2.24 (0.15) | -2.45 (0.20) | -3.00 (0.78) | -2.24 (0.15) | -2.46 (0.20) | -2.64 (1.03) | -2.23 (0.15) | -2.14 (0.14) | -2.93 (0.53) |
| PSR | ***1.24 (0.26) | ***1.25 (0.25) | ***1.31 (0.26) | ***1.23 (0.25) | ***1.25 (0.26) | ***1.27 (0.26) | ***1.24 (0.26) | ***1.25 (0.26) | ***1.30 (0.25) | ***1.30 (0.27) |
| TPSR | *0.27 (0.15) | *0.24 (0.15) | 0.23 (0.15) | *0.26 (0.15) | | | | | | |
| WTPSR | | | | | *0.95 (0.50) | *0.85 (0.50) | **1.01 (0.50) | ***0.94 (0.50) | **1.03 (0.49) | **1.03 (0.52) |
| UVO | *0.17 (0.09) | **0.16 (0.08) | *0.14 (0.08) | *0.14 (0.08) | **0.15 (0.08) | *0.14 (0.08) | *0.16 (0.09) | *0.16 (0.08) | | *0.15 (0.09) |
| VO | | | | 2.7E-05 (4.6E-05) | | | | | | |
| RSTKHL D | 2 E-04 (4 E-04) | | | | | | 2 E-04 (4 E-04) | | | |
| LogValTSh | -0.10 (0.19) | | | | | | -0.08 (0.19) | | | |
| PrntSh | 4E-03 (6E-02) | | | 2E-03 (5E-02) | | | 1E-02 (6E-02) | | | |
| INMONUN | | | | | | | | -3.8E-06 (9.7E-06) | 2E-07 (6.5E-06) | |
| LogTDC | 2E-03 (2.2E-1) | | | | | | 0.01 (0.22) | | | |
| ValByTDC | | | | -1.5E-04 (8.7E-04) | | | | | | |
| Age | 0.013 (0.014) | | | 0.012 (0.014) | | | 0.011 (0.014) | | | |
| Tenure | 0.01 (0.02) | | | 0.01 (0.02) | | | 0.01 (0.02) | | | |
| ABTM | | | 0.24 (0.31) | | | 0.24 (0.31) | | | | |
| AQ | | | -0.06 (0.09) | | | -0.05 (0.09) | | | | |
| ALogTA | | | 0.08 (0.06) | | | 0.08 (0.06) | | | | |
| AROA | | | 0.45 (0.77) | | | 0.41 (0.77) | | | | |
| Year | 0.14 (0.18) | 0.15 (0.17) | 0.16 (0.18) | 0.14 (0.17) | 0.17 (0.17) | 0.16 (0.18) | 0.17 (0.18) | 0.18 (0.17) | 0.14 (0.17) | 0.17 (0.18) |
| Industry Observations | N=992 | N=992 | N=969 | N=992 | N=969 | N=969 | N=969 | N=969 | N=969 | 12 portfolios N=963 |

The sample consists of observations of companies with staggered boards, of which thirty-four are of companies that destaggered in either 2004 or 2005. The dependent variable is a dummy variable denoting whether or not the company dismantled the staggered board. The independent variables include the number of unvested options of the CEO (UVO); the CEO's restricted stock (RSTKHL D); the log of the value of the CEO's unrestricted stock (LogValTSh); the number of vested options of the CEO (VO); the value of unvested in-the-money options (INMONUN); the log of the CEO's annual compensation (LogTDC); the value of the CEO's unrestricted stock divided by the CEO's annual compensation (ValByTDC); the CEO's percent shareholdings (PrntSh); CEO's age (Age); CEO's tenure (Tenure); a dummy variable denoting whether there was a precatory shareholder resolution to destagger in the previous annual shareholder meeting (PSR); the number of precatory resolutions to destagger in the four year period prior to the last annual meeting (TPSR); a weighted average of precatory resolutions to destagger in the four year period prior to the last annual meeting (WTPSR); the industry-adjusted book-to-market value of equity (ABTM); the industry-adjusted Tobin's Q (AQ); the industry-adjusted log of total assets (ALogTA); the industry-adjusted return on assets (AROA); and a dummy variable for the year (2003, 2004). The symbols *, **, and *** indicate significance levels at 10%, 5%, and 1% levels, respectively. Standard errors are reported in parentheses.

Table 1 shows the results of the estimates for the parameters using the sub-sample of the 992 observations¹⁰⁰ (these observations include only companies of which the CEO's holdings are restricted to less than 10%). We can see from column (1) of Table 1 the coefficient β of the dummy variable corresponding to the existence of a precatory shareholder resolution in the last shareholder annual meeting (PSR) is positive with confidence level higher than 99.99%. The coefficient itself is 1.2 with a standard error of 0.26, which means that the existence of such precatory shareholder resolution increases the probability to destagger by about 1.2 standard deviations, in the sense explained above (i.e., it adds 1.2 to Y).

Similarly, column (1) of Table 1 shows the coefficient β of the variable corresponding to the number of precatory shareholder resolutions in the four years prior to the last annual meeting of the shareholder (TPSR) is positive with confidence level higher than 92%. The coefficient itself is 0.27 with a standard error of 0.15, which means that each such precatory shareholder resolution increases the probability to destagger by about 0.27 standard deviations, in the sense explained above (i.e., it adds 0.27 to Y). From column (5) of Table 1 we can see the coefficient β of the variable corresponding to the weighted average of the number of precatory shareholder resolutions in the four years prior to the last annual meeting of the shareholder (WTPSR) is positive with confidence level higher than 94%. The pie charts in Figures 1 through 7 illustrate the distribution of precatory resolutions in the sample.

¹⁰⁰When the performance variables were included, the sample was restricted to 969 observations for which data was available.

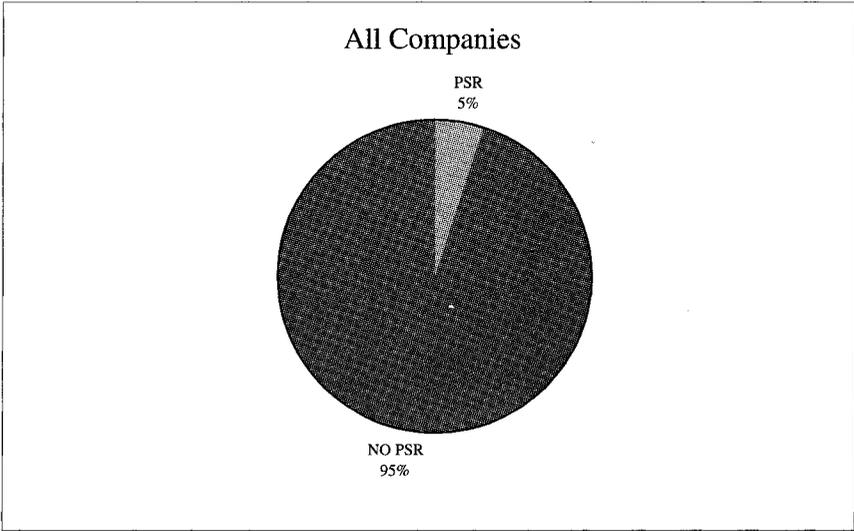


Figure 1. Distribution of precatory resolutions in the sample (i.e., companies with a precatory shareholder resolution in the previous year).

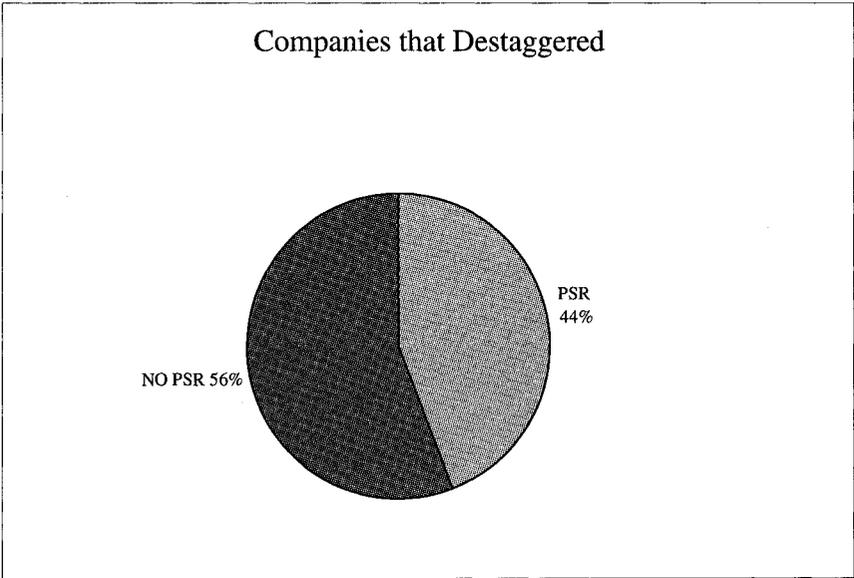


Figure 2. Companies that destaggered. Note the set of companies that destaggered had a higher percentage of companies with a precatory resolution in the year before the destaggering.

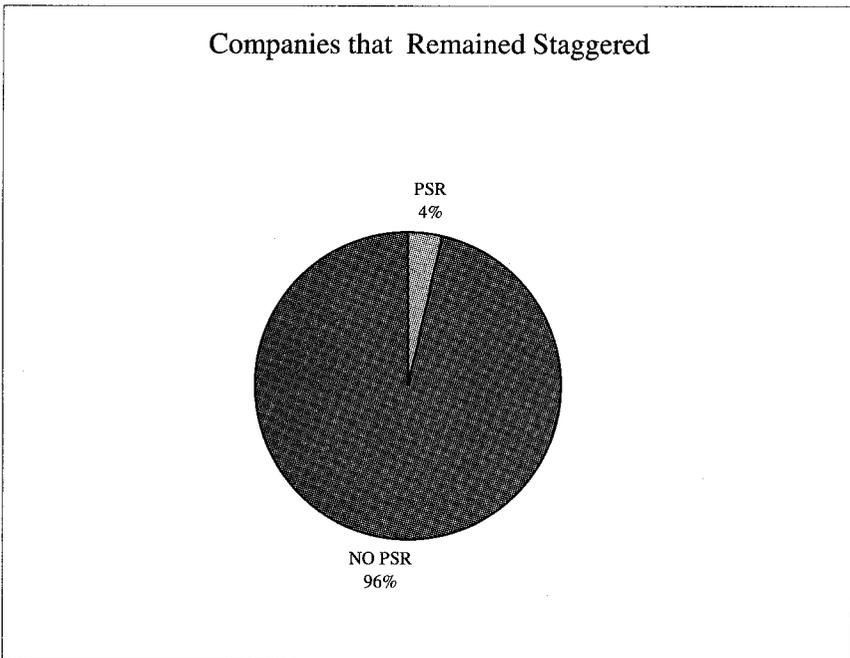


Figure 3. Companies that remained staggered.

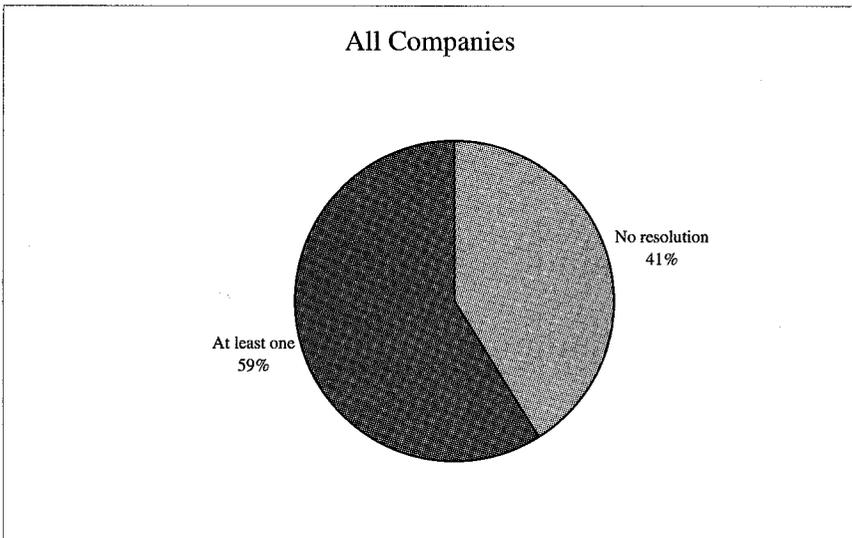


Figure 4. Percentage of companies with at least one precatory shareholder resolution in the last five years before the company destaggered.

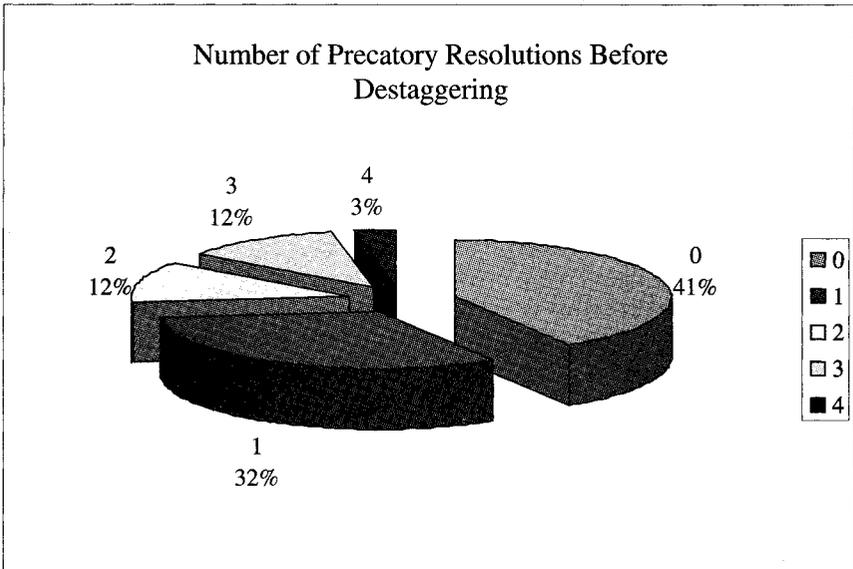


Figure 5. Number of precatory resolutions before destaggering. Note, 41% of the companies in the sample destaggered without having any precatory shareholder resolution asking the board to destagger in the prior years.

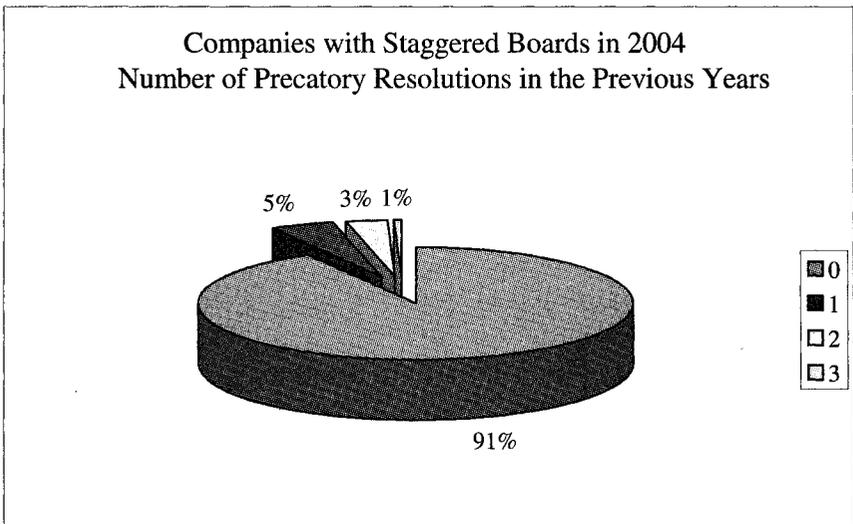


Figure 6. Companies with staggered boards in 2004 by number of precatory resolutions in the prior years.

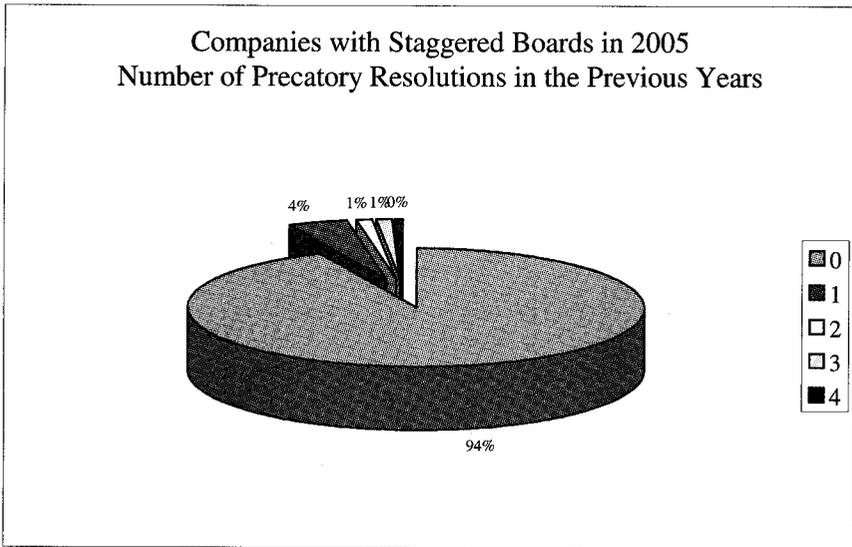


Figure 7. Companies with staggered boards in 2005 by number of precatory resolutions in the prior years.

We can further see from column (1) of Table 1 that the coefficient β of the variable corresponding to the number of unvested options, including out-of-the-money options, the CEO held (UVO) is positive with a confidence level of 94%. The coefficient itself is 0.17 with a standard error of 0.09, which means that every additional million options increases the probability to destagger by about 0.17 standard deviations, in the sense explained above (i.e., it adds 0.17 to Y). Figure 8 illustrates the distribution of the number of unvested options in each of the two sets of companies in the sample—the companies that destaggered and the companies that remained staggered. We clearly see that the destaggered companies tend to have higher values of UVO. Figure 9 divides the sample into sets based on the values of UVO and illustrates the percentage of companies that destaggered in each set. We see the percentage of companies that destaggered tends to be higher in the sets with higher UVO values.

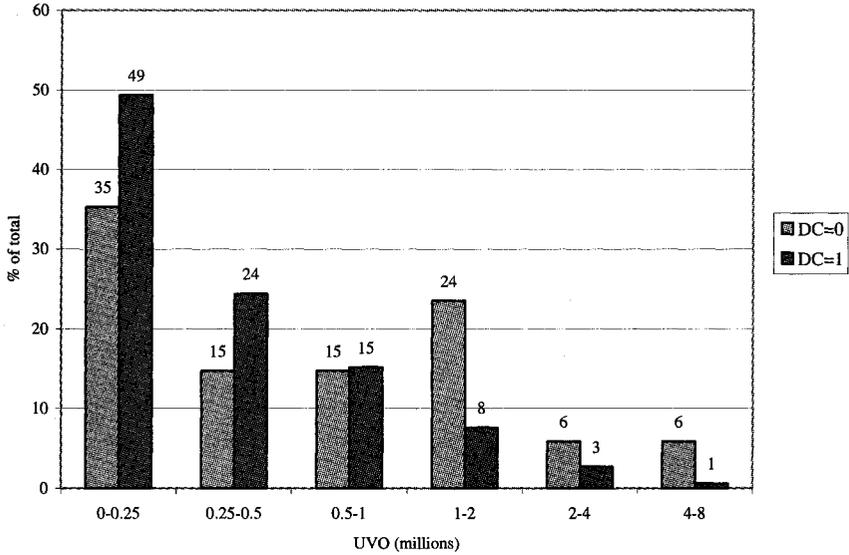


Figure 8. Distribution of unvested options in staggered and destaggered companies (including underwater); "DC" indicates the decision whether or not to destagger, where 0=repeat staggered board and 1=remain staggered.

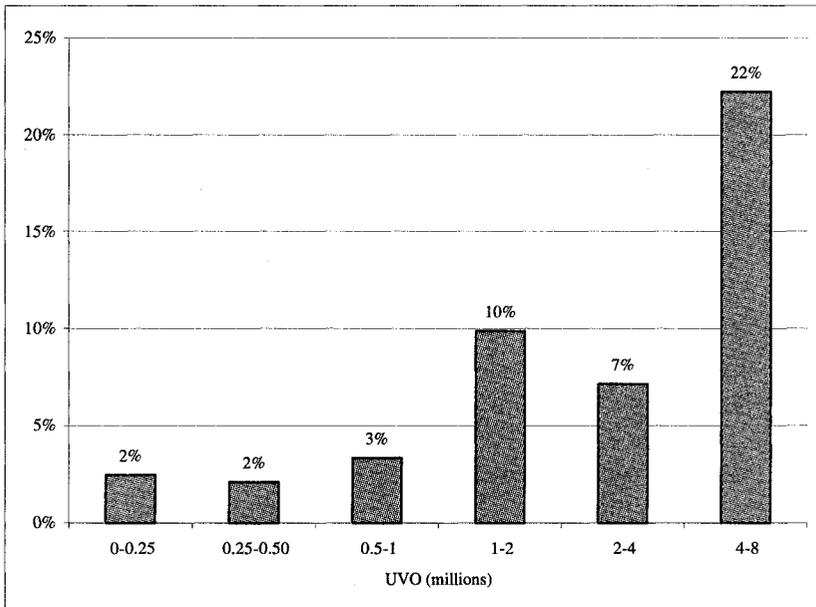


Figure 9. Percentage of companies that destaggered within each range of UVOs.

The variable itself, UVO, includes both in-the-money and out-of-the-money unvested options. On the other hand, the variable INMONUN includes only in-the-money unvested options. Because UVO is significantly correlated with the decision to destagger and the test for INMONUN (the value of unvested in-the-money options) did not show any statistically significant correlation with the destaggering decision, it appears only the out-of-the-money portion of the unvested options is responsible for the positive correlation found.

Interestingly, UVO measures the number of unvested options and not their value. Like INMONUN, the product of the number of options, UVO, and the stock price, which may be taken as an estimate for the value of the options or at least be proportional to it, also does not provide a statistically significant result. It may be the number of options that are out-of-the-money is more correlated with the anticipated increase in value of those options following the destaggering decision. Additionally, it may be that managers are psychologically more influenced by the number of the options than by the actual option value.

The results for the other variables were not statistically significant at the 90% level. These findings confirm hypotheses about a positive correlation between precatory shareholder resolutions and the decision to

destagger and a positive correlation between the amount of unvested options (including out-of-the-money) and the destaggering decision. As I argue above, it is likely that out-of-the-money options have a strong influence. The findings can neither refute nor prove the other hypotheses.¹⁰¹

To determine whether companies subject to shareholder pressure act differently than those without, I further divide the sample into two sets: companies that had a precatory shareholder resolution asking the board to destagger and those that did not. I repeat the probit tests separately on each set. The test provided similar results in direction and magnitude of influence of the explanatory variables. To be sure, because the size of the divided samples is smaller, the statistical significance of the results for the separate sets is lower compared with the test results for the entire sample.

2. Controls for Sensitivity of Results

In the previous section, I report finding statistically significant correlation between the decision to destagger and each of the explanatory variables: PSR, WTPSR, and UVO. Are these variables directly tied with the decision, or do they only reflect an indirect correlation? Other parameters may also influence management decision to destagger. Such other parameters also potentially affect the explanatory variables. Thus, the coefficients found in the regressions may not reflect the direct interaction between the explanatory variables and the dependent variable, but rather include the influence of the other variables on the decision to destagger.

For example, the performance of the company may, hypothetically, have a direct effect on management decision to destagger. At the same time, however, the performance of the company may also directly affect the shareholder decision whether to pass a shareholder precatory resolution (PSR). Similarly, the performance of the company may directly affect the number of options the manager has, the value of the options, and whether those options are out-of-the-money. Thus, to control for the effect of the performance of the company, and isolate it from the interaction between the decision to destagger and the explanatory variables, the performance variable is included in a multivariable regression. The multivariable regression tests whether the coefficients of the explanatory variables, PSR and UVO, remain at a similar magnitude and are statistically significant despite the inclusion of the performance of the company as a control variable.¹⁰²

¹⁰¹ See *supra* Part III (describing and discussing the hypotheses).

¹⁰² WTPSR is unlikely to be affected by the recent performance variables, because it measures past behavior of shareholders. It may, however, be correlated with past performance of the company.

As described in Part IV.B.1, the multivariable regression models that were tested included the various variables listed in Appendix A. In the multivariable regression test, some of the explanatory variables play a dual role as control variables. In the example above, the various estimates for the company's performance serve as control variables for the impact of statistically significant explanatory variables on the dependent variable. Similarly, the tenure of the manager, the size of her salary, the amount of shares owned, and her percentage holding can all be connected to the number of options the manager has and, more specifically, to the UVO of the manager, or to the outrage of the shareholders, and thus to PSR and WTPSR.

For example, a manager with more tenure may receive more compensation, including unvested options. Conversely, new managers may receive large incentive compensation packages in the form of unvested options; these options vest with the tenure of the manager. Thus, the tenure of the manager may impact the number of UVOs she has. Likewise, since the exercise price of compensation options is usually set at the price of the underlying stock at the date of grant, the tenure of the manager is also potentially related to the number of out-of-the-money options, because the passage of time since the manager received the option may be connected to the tenure and to the likelihood of a change in the stock price.

As can be seen from columns (1)-(7) of Table 1, including the additional variables in the regressions does not significantly change the magnitude of the coefficients of UVO, PSR, and WTPSR. These three variables remain statistically significant within the 10% level or better also in a multivariable analysis.

In addition to the factors tested in the multivariable analysis described in Part IV.B.1, a control variable that measures the relative change in the price of the stock should be added. This is because the analysis of the statistical results suggests out-of-the-money unvested options influence the decision to destagger, and because out-of-the-money options arise when the stock price declines below the strike price of the option, i.e., the stock price at the date of the grant. Thus, for each observation of UVO, I calculated the relative change in the stock price,

$$PC = \frac{R_t - R_{t-1}}{R_{t-1}},$$

where R_t is the adjusted stock price at the time UVO is calculated, reported by Compustat[®] as PRCC. For robustness, I use five different time spans: a year, half a year, a quarter, and a month before the date on which the number of options is reported, and a quarter after that date.

I run multivariable probit regressions with these control variables added, and the three explanatory variables PSR, WTPSR, and UVO. This multivariable regression checks the sensitivity of the interaction between UVO and the decision to destagger, given the added control variables. As columns (1)-(5) of Table 2 show, while the coefficients of the three explanatory variables remain similar and statistically significant, the new control variables do not show statistically significant coefficients.¹⁰³ This result seems consistent with the fact that the performance variables did not change the results of the regression. And, as hypothesized in Part III.B.1, a decrease in the stock price may motivate the management to cling to the staggered board, because the risk of a hostile takeover is likely to be higher—an opposite influence than that of the UVOs.

¹⁰³The coefficient of one of the five new control variables, CP3AMO, was statistically significant at the 9% level in one of the models tested, as reported in column (5) of Table 2. However, in a regression with no other independent variables, the coefficient of CP3AMO was not statistically significant. Also, the magnitude of the coefficient of CP3AMO varied significantly in different models, as is shown in columns (5)-(8) of Table 2. It seems there is not sufficient statistics to determine that this variable is a significant explanatory variable for the decision to destagger. The coefficients found may result from an interaction between PSR and CP3AMO.

Table 2. The Decision Whether to Destagger—The Probit Results

| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) |
|------------------|-----------------------|-----------------------|-----------------------|-------------------------|-----------------------|-----------------------|-----------------------|-------------------------|-----------------|-----------------------|---------------------------|
| Intercept | -2.33 (0.17) | -2.30 (0.18) | -2.17 (0.17) | -2.29 (0.16) | -2.22 (0.15) | -2.04 (0.13) | -2.12 (0.13) | - 1.87 (0.1 1) | -2.05 (0.13) | -2.12 (0.13) | - 2.03 (0.1 2) |
| UVO | **0.1 5 (0.08) | **0.1 6 (0.08) | **0.1 5 (0.08) | **0.1 5 (0.08) | **0.1 5 (0.08) | ***0. 23 (0.07) | | ***0.23 (0.0 7) | | | |
| PSR | ***1. 26 (0.26) | ***1. 25 (0.26) | ***1. 25 (0.26) | ***1. 27 (0.26) | ***1. 29 (0.26) | | ***1. 33 (0.26) | | | ***1. 58 (0.21) | |
| WTPSR | **0.9 5 (0.50) | *0.96 (0.50) | *0.93 (0.50) | *0.9 5 (0.4 9) | **1.08 (0.50) | | **1.1 7 (0.49) | | | | ***2. 30 (0.4 0) |
| PC12MO | 0.16 (0.14) | | | | | | | | | | |
| PC6MO | | 0.19 (0.30) | | | | | | | | | |
| PC3MO | | | -0.48 (0.56) | | | | | | | | |
| PC1MO | | | | 0.73 (0.7 4) | | | | | | | |
| PC3AMO | | | | | *-1.06 (0.62) | -0.34 (0.53) | *- 1.02 (0.62) | - 0.22 (0.5 1) | | | |
| Year | 0.22 (0.18) | 0.21 (0.18) | 0.16 (0.18) | 0.19 (0.1 8) | 0.10 (0.18) | 0.17 (0.16) | 0.06 (0.18) | 0.12 (0.1 6) | 0.19 (0.16) | 0.16 (0.17) | 0.12 (0.1 6) |

The sample consists of 965 observations of companies with staggered boards, of which thirty-four are of companies that destaggered in either 2004 or 2005. The dependent variable is a dummy variable denoting whether the company dismantled the staggered board or not. The independent variables include the number of unvested options of the CEO (UVO); a dummy variable denoting whether there was a precatory shareholder resolution to destagger in the previous annual shareholder meeting (PSR); a weighted average of precatory resolutions to destagger in the four year period prior to the last annual meeting (WTPSR); the relative change in the stock price over twelve month period (PC12MO); the relative change in the stock price over six month period (PC6MO); the relative change in the stock price over three month period (PC3MO); the relative change in the stock price over one month period (PC1MO); the relative change in the stock price over three month period beginning at year end (PC3AMO); and a dummy variable for the year (2003, 2004). The symbols *, **, and *** indicate significance levels at 10%, 5%, and 1% levels, respectively. Standard errors are reported in parentheses. Note that the inclusion of the control variables PC12MO, PC6MO, PC3MO, and PC1MO changes the coefficient of UVO only slightly, and its statistical significance persists.

In addition, I use industry dummy variables as control variables. I assign each company one of twelve industry portfolios based on its four-digit SIC Code, following the industry definitions on Kenneth French's website.¹⁰⁴ To be sure, the inclusion of a large number of industry dummies reduces the degrees of freedom, but the coefficients of the three explanatory variables PSR, WTPSR, and UVO remain similar and statistically significant within the 10% level or better, as can be seen in column (10) of Table 1.

3. Summary of Statistical Findings and Suggested Implications

As described in Part IV.B.1 above, the results of this study indicate a strong correlation between the management decision to destagger and shareholder pressure. This suggests shareholders' efforts to influence the board may be fruitful. This result does not indicate whether the level of the shareholders' informal power and influence on the board is efficient or suboptimal; it does, however, show the shareholders are not utterly powerless.

This study also finds a significant statistical relationship between the decision to destagger and the unvested (including out-of-the-money) options of the CEO. This form of equity compensation seems to contribute significantly to the alignment of agent-principal interests. This suggests certain types of performance-based compensation influence management's decision making. Unrestricted equity as well as in-the-money options, however, do not seem to motivate the manager to destagger, at least within the statistical errors of this test. This connection between the manager's equity and the decision whether to destagger may also suggest managers' decisions regarding destaggering are motivated by selfish reasons, rather than the purported best interests of the shareholders.

V. THE MARKET'S REACTION TO DESTAGGERING—EVENT STUDY

The market reaction may play an important factor in understanding managers' behavior. The motivation behind the destaggering may well be management's hope that the market will compensate it by increasing the stock price.¹⁰⁵ Thus, I check the market reaction to the board's destaggering announcement to gain a fuller picture of the destaggering phenomenon.

¹⁰⁴Kenneth R. French, Data Library, http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.

¹⁰⁵See *supra* Part III (discussing possible hypotheses relating to the manager's equity holdings).

Stock price increase may be explained by anticipated increase in company value following the removal of antitakeover protections.¹⁰⁶ Destaggering may cause the public to raise the value assigned to the company in anticipation of better use of the company's resources. A destaggered company may be managed more efficiently either because of better monitoring or because of an actual takeover.¹⁰⁷

Managers may be interested in increasing the stock price because of their own equity holding stakes. Another explanation for the managers' motivation may be a positive correlation between the stock price and management's future compensation. The announcement by the board of its intent to destagger may also be explained by a managerial signal that the company is well-managed, and may thus be followed by an increase in stock price.

Generally, managers who optimize the use of the company's resources face a lower probability of being replaced by an opportunistic raider seeking to make money from running the company better. Thus, managers who do a better job of running the company may be more likely to agree to destagger the board because their need for antitakeover protection is lower. Such managers may use this tactic to justify higher compensation, if they are unable to do so in less expensive ways. Part of the anticipated increase in compensation should be attributed to the probability of being replaced; the other part may reflect compensation for signaling credibly they are better managers (or at least signaling they believe that they have better managerial skills).¹⁰⁸

To see the reaction of the market to the board's decision to destagger, I conduct an event study. There is evidence the market values companies without staggered boards more than companies with staggered boards. Researchers have studied and compared Tobin's Qs of companies with and without staggered boards and found higher values attributed to companies without staggered boards.¹⁰⁹ To complement these studies I look for the market's reaction to destaggering in 2004.

¹⁰⁶See generally Bebchuk & Cohen, *supra* note 3, at 410-11 (finding companies without classified boards have higher Tobin's Q).

¹⁰⁷An alternative possibility is suggested by Jennifer Arlen and Eric Talley who argue unstaggered boards may engage in value reducing activities aimed at preventing hostile takeover attempts. See generally Jennifer Arlen & Eric Talley, *Unregulable Defenses and the Perils of Shareholder Choice*, 152 U. PA. L. REV. 577 (2003) (arguing a shareholder choice rule would prompt managers to find alternative value-reducing defenses).

¹⁰⁸To be sure, the total compensation for destaggering should be lower than the increased risk from destaggering faced by the less skilled managers in order for the signaling to work.

¹⁰⁹See Bebchuk & Cohen, *supra* note 3, at 410.

A recent independent study, conducted by Olubunmi Faleye, checked for cumulative abnormal returns following the announcement dates of destaggering in the years 1996-2002.¹¹⁰ Faleye's study found the average cumulative abnormal return of the twenty-four companies in his sample that destaggered during the seven year period was 1.34% in the [-5, 0] window.¹¹¹

My event study covers companies that destaggered in 2004. I check for cumulative abnormal returns following the announcement dates compared both to the market return and to the applicable industry return during several different event windows. When looking at a sample of twenty-three nonfinancial trading companies that destaggered in 2004, I find statistically significant cumulative abnormal returns. The mean cumulative abnormal return for a thirty trading-day window [-1, +28], starting a day before the announcement date, is 4.5%, the median is 2.3% and the weighted average CAR is WACAR=3.5% ($\pm 2\%$) when using the applicable industry portfolio. The results are statistically significant at the 4% level.

However, when I further restricted the sample to only companies whose managers had less than 10% equity holdings and only charter-based boards, I am left with a sub-sample of only fifteen companies that did not provide sufficient statistics for statistically significant results. Appendix B provides a detailed description of the methodology of the event studies I have conducted.

VI. CONCLUSION

This article discussed a puzzling managerial behavior—some managers volunteered to dismantle the staggered board structure that entrenches them in their position. In an attempt to understand the motivation of such managers, I studied the effect of various characteristics of the company and CEO on this phenomenon. This study has implications on current debates on shareholder power and management compensation. In particular, it suggests shareholders are more potent than might appear from a simple study of their formal rights. To be sure, this power to influence the board is limited in comparison to formal rights to control. Indeed, the majority of companies with precatory resolutions do not rush to destagger. Nonetheless, the shareholders are not completely defenseless. I found a statistically significant connection between precatory resolutions and the management decision to destagger.

¹¹⁰See Faleye, *supra* note 8, at 514.

¹¹¹*Id.* at 514-15.

While I did not find evidence that straight equity compensation helps management to focus on the shareholders' interests, I did find statistically significant evidence that *restricted, unvested, (including out-of-the-money)* options motivate the managers to destagger. This finding highlights the important role specially tailored performance-based compensation plays in aligning the interests of management and shareholders, and it demonstrates the weakness of straight equity.

The results suggest, indirectly, out-of-the-money options could have a powerful incentive effect: they induce the managers to take a personally costly action—destagger boards—to increase the stock price.¹¹² This suggests the recent trend of giving managers at-the-money options, and practically in-the-money options, may not be creating the best incentives.

I believe further study of the decision whether or not to destagger is needed. Such study should explore insider activities, both following and preceding the announcement of the board's intent to destagger. A study comparing the performance of destaggered companies and staggered companies in the applicable industries, both before and after the destaggering, may shed further light on the decision to destagger. I also suggest checking changes in the compensation of key employees following destaggering (both in amount and type of compensation).

For example, destaggering may be used as a managerial signal that the company is well-managed. Generally, managers who optimize the use of the company's resources face a lower probability of being replaced by an opportunistic raider seeking to make money from running the company better. Thus, managers who do a better job of running the company may be more likely to agree to destagger the board, provided they benefit from the destaggering, for example by being able to extract higher rents following the destaggering.

Additional investigation may look into the existence of special shareholder characteristics, such as large blockholders and institutions. Such tests may reveal further explanations as to why managers choose to destagger.

¹¹²Because I did not have a pure variable that isolates the out-of-the-money options, this is not a direct result, but the results suggest a possible correlation as explained in *supra* Part IV.B.1.

APPENDIX A

Description of the Variables Used in the Regression Models

| Variable | Type/units | Description |
|-------------------------|---------------|--|
| AGE | (years) | CEO's age as of the applicable year. |
| ALogTA | (number) | Industry-adjusted log of the value of the total assets—the log of the company's value of total assets minus the median log of total assets in the applicable industry. |
| AQ | (number) | Industry-adjusted Tobin's Q—Tobin's Q of the company minus the median Tobin's Q in the company's industry. |
| BTM | (number) | Book-to-market value of equity. |
| DC | (binary) | Indicates whether the board decided to destagger. DC=0 denotes that the board favored destaggering. |
| EIndex | (1,2, . . .6) | The Bebchuk, Cohen, and Ferrell's Entrenchment Index, counting the number of entrenchment mechanisms the company has out of the salient six (including staggered board). ¹¹³ |
| InByTDC | (number) | INMONUN divided by TDC. |
| INMONEX | (× \$1,000) | Defined by ExecuComp as "the value of Exercisable In-the-Money Options. This represents the value the officer would have realized at year end if he had exercised all of his vested options that had an exercise price below the market price. This figure includes only in-the-money options, as out of the money options are worth zero." ¹¹⁴ |
| Industry Dummies | (binary) | Indicates whether the company is in one of twelve industry portfolios, as defined in Kenneth French's website, based on the company's four-digit SIC Code. ¹¹⁵ |
| INMONUN | (× \$1,000) | Defined by ExecuComp as "the value of Unexercisable In-the-Money Options. This represents the value the officer would have realized at year end if he had exercised all of his unvested options that had an exercise price below the market price. This figure includes only in-the-money options, as out of the money options are worth zero." ¹¹⁶ |
| PC1MO | (number) | Indicates the relative change in the stock price over a one month period ending at year end. |

¹¹³Data on Staggered Boards, 1990-2002, *supra* note 64.

¹¹⁴ExecuComp Data Definitions by Table, *supra* note 80.

¹¹⁵French, Data Library, *supra* note 104.

¹¹⁶ExecuComp Data Definitions by Table, *supra* note 80.

| Variable | Type/units | Description |
|------------------|------------------|--|
| PC12MO | (number) | Indicates the relative change in the stock price over a twelve month period ending at year end. |
| PC3MO | (number) | Indicates the relative change in the stock price over a three month period ending at year end. |
| PC3AMO | (number) | Indicates the relative change in the stock price over a three month period beginning at year end. |
| PC6MO | (number) | Indicates the relative change in the stock price over a one month period ending at year end. |
| PRCNTSHR | (number) | Percent of shares owned by the CEO (as reported). |
| PSR | (binary) | Indicates whether there was a precatory shareholder resolution to destagger in the previous year. |
| Q | (number) | Tobin's Q—market value of assets-to-replacement cost of assets—the ratio of (1) the sum of the book value of assets plus the market value of common stock minus the sum of book value of common stock and balance sheet deferred taxes, and (2) the book value of the assets. |
| ROA | (number) | Return on assets—operating income before depreciation divided by total assets measured at the beginning of the period. |
| RSTKHLDD | (x 1,000 shares) | Defined by ExecuComp as "the number of shares of restricted stock held [by the CEO] at the end of the fiscal year." ¹¹⁷ |
| RSTKHLDDV | (x \$1,000) | Defined by ExecuComp as "the value of [the CEO's] restricted stock holdings at the end of the year." ¹¹⁸ |
| SHROWNPC | (number) | Percent of shares owned by the CEO (as calculated). |
| TA | (x \$1,000,000) | Company's size—value of total assets. |
| TDC1 | (x \$1,000) | Defined by ExecuComp as the "[t]otal compensation for the individual year, comprised of the following: Salary, Bonus, Other Annual, Total Value of Restricted Stock Granted, Total Value of Stock Options Granted (using Black-Scholes), Long-Term Incentive Payouts, and All Other Total." ¹¹⁹ |
| TENURE | (years) | CEO's tenure as of the applicable year. |

¹¹⁷*Id.*¹¹⁸*Id.*¹¹⁹*Id.*

| Variable | Type/units | Description |
|-----------------|----------------------|---|
| TPSR | (0,1,2, . . . 4) | Indicates the number of precatory shareholder resolutions to destagger that passed in the four-year period prior to the previous year. |
| UVO | (× 1,000,000 shares) | Unvested Options—Defined by ExecuComp as UEXNUMUN, "the number of unexercised options that the executive held at yearend [sic] that had not vested. This figure includes both in and out-of-the-money options." ¹²⁰ |
| ValByTDC | (number) | VALTSH divided by TDC. |
| VALTSH | (× \$1,000) | Shares owned by CEO multiplied by stock |
| VO | (× 1,000 shares) | Vested Options—Defined by ExecuComp as UEXNUMEX, "the number of unexercised options that the executive held at yearend [sic] that were vested. This figure includes both in and out-of-the-money options." ¹²¹ |
| WTPSR | (0 . . . 1) | A weighted average of the number of precatory shareholder resolutions to destagger that passed in the four-year period prior to the previous year. The weights assigned are 40%, 30%, 20%, and 10%, respectively, starting from the most recent year. |
| YEAR | (0,1) | Indicates the year of the observation. YEAR=1 refers to data from 2004 (and destaggering in 2005) while YEAR=0 refers to data from 2003 (destaggering in 2004). |

¹²⁰ExecuComp Data Definitions by Table, *supra* note 80.

¹²¹*Id.*

APPENDIX B

Methodology of Event Study

To check whether there is a market reaction to the decision to destagger, I conducted event studies using the market-model method.¹²² The event studies check for abnormal returns attributable to the destaggering. I use the event studies to check the hypothesis that in anticipation of the destaggering there is a one-time increase in the price of the firm that is identified as abnormal return. The abnormal return is in expectation of an improvement in the firm's performance. The improvement in the firm's performance derives from improved management performance and potential efficient takeover, both of which are driven by the elimination of management protection. Indeed, in their study, Bebchuk and Cohen find companies that are not staggered enjoy a statistically significant higher Tobin's Q than companies with staggered boards.¹²³

I. DATA

The data includes companies that destaggered in 2004, and the announcement dates, i.e., the dates the market learned about the destaggering. The following describes the process of collecting the data.

A. Companies

Thirty-seven companies were included in the Georgeson Shareholder report for 2004 as companies whose board initiated a shareholder vote for destaggering.¹²⁴ Of these firms, two boards recommended against destaggering. In addition, by looking at the SIC Codes of the companies, I have identified ten companies categorized as Financial Trading (eight of which are REITs).¹²⁵

In one of the companies, National Medical Health Card Systems, the destaggering resolution was brought to the shareholders' vote as a condition to an investment transaction by an acquirer which eventually resulted in a change in control. I excluded this company from the final sample because

¹²²See JOHN Y. CAMPBELL ET AL., *THE ECONOMETRICS OF FINANCIAL MARKETS* ch. 4 (1997).

¹²³Bebchuk & Cohen, *supra* note 3.

¹²⁴GEORGESON SHAREHOLDER, 2004 ANNUAL CORPORATE GOVERNANCE REVIEW, *supra* note 15.

¹²⁵See, e.g., Bebchuk & Cohen, *supra* note 3 (excluding REITs); Daines, *supra* note 66, (including only nonfinancial companies).

any abnormal returns that may be detected may be attributable to the transaction rather than the destaggering. Cendant was also removed from the sample because it seems the resolution has been influenced by a lawsuit settlement with a shareholder following an accounting scandal from 1998. (Both companies, though, do not seem to influence the results.)

After these exclusions, twenty-three nonfinancial companies remain whose boards have initiated and pushed for destaggering. These firms consist of the initial sample. I further continued to exclude additional companies because of dual class structure, bylaws-based staggered board, and more than 10% CEO beneficial ownership.¹²⁶ After these exclusions, the final sample consists of only fifteen companies.

B. Dates

To find the initial announcement date—the date when the market first learns of the proposed board initiated destaggering—I conducted database searches. I searched Google, Factiva, and LexisNexis for press releases, newspaper articles, and preliminary SEC filings reporting management's plan to destagger for all the companies whose boards decided to destagger in 2004. Since there is likely to be a gap between the time the board decides to destagger (or a public discussion about it) and the following annual shareholders' meeting, when the destaggering is proposed, I searched the databases using an extended time restriction starting from January 1, 2003 to January 1, 2005.

Of the thirty-five companies whose boards initiated shareholder destaggering resolutions, I found only twelve reports that preceded the date of the preliminary filings with the SEC (seven of which were part of the restricted subset of twenty-three firms). I follow the prior work of event studies where the earlier of the proxy filing or the announcement date was used as the date the market had initially learned of the event.¹²⁷ To be sure, the information may have leaked to the market, without a formal notice, immediately following the board resolution or even prior to that. This may negatively affect the robustness of the event study. To decrease the possibility that the market had learned of the proposed destaggering at a prior date, I check event windows that start before the announcement date found in the media database searches.

¹²⁶See *supra* Part IV (describing and explaining these exclusions).

¹²⁷See, e.g., Tod Perry & Urs Peyer, *Board Seat Accumulation by Executives: A Shareholder's Perspective*, 60 J. FIN. 2083, 2088 (2005) (reporting in their sample, 57% of the studied events had an announcement date prior to the filing date of the proxy).

In addition to the initial announcement date, when the market learns of management's intent to ask the shareholders to destagger the board, the actual date of the binding shareholder resolution to destagger initiated by the board may also be important. This is because as long as there is no binding resolution, the board may stay staggered. This probability is especially high where the company's charter requires a super majority vote.

Cendant, for example, successfully passed a destaggering resolution in 2004. However, in 2002, a similar resolution failed even though more than 75% of the shares voted favored the destaggering resolution. The company's charter required at least 80% of the outstanding shares vote in favor.¹²⁸

Thus, there are two lists of event dates: the earlier announcement date and the actual resolution date. The later date was added to control for market hesitation due to possible dispersed shareholder apathy, as might have been the case in Cendant. A positive abnormal return around the announcement date may be expected, because shareholders would presumably approve a destaggering resolution.

II. MARKET-MODEL EVENT STUDIES

Each company's parameters are derived in a [-250, -20] days estimation period, where day one is the announcement date. For the explanatory variable of the ordinary-least-squares regression for each company, I use once the returns of the market and once the returns of each firm's relevant industry (using the companies' four digit SIC Codes and the forty-nine industry portfolios from Kenneth French's website¹²⁹ in the applicable [-250, -20] day's estimation period). I calculated two pairs of intercepts and slopes (α and β , respectively) for each company, from the regression of the following formula (2).

$$RET_{it} = \alpha_i + \beta_i \text{ MarketReturn}_t + \epsilon_{it} \quad (2)$$

Here RET_{it} is the return of the i^{th} company in day t ; α_i and β_i are the intercept and slope for the i^{th} company; MarketReturn_t is the market or industry return in day t ; and ϵ_{it} is the random noise. I used the daily market returns and the daily company returns reported in CRSP database and the applicable industry returns for each firm from French's website. I derived estimators for α_i and β_i (denoted by $\hat{\alpha}_i$ and $\hat{\beta}_i$) using an ordinary least squares (OLS) regression for each company separately.

¹²⁸See Cendant Corporation's 2004 Proxy Statement at 38-39, available at <http://www.sec.gov/Archives/edgar/data/723612/000104746904006108/a2129692zdef14a.htm>.

¹²⁹French, Data Library, *supra* note 104.

Then, I checked the null hypothesis of stock returns for both event date lists—the earlier announcement date and the actual binding resolution date. I used both a three trading-day event window, beginning on the trading day before the announcement/resolution date, and three different longer trading-day event windows [-10, 20], [-1, 19], and [-1, 28]. I checked a total of eight different event windows for each company. The different event windows were chosen to accommodate different assumptions about information absorption in the market.

A three day window may be too small, as it presumes the markets are highly efficient. Thus, I also checked a twenty-one and a thirty day window around the announcement date, to allow the market to absorb the information. I checked both a window that starts at day $t=-1$ and a window that starts at day $t=-10$. The latter starting date entertains an assumption the market learns of the proposed destaggering prior to the initial public announcement date (the earliest date I was able to identify from the databases searches described above).

Using each company's estimated parameters ($\hat{\alpha}_i$ and $\hat{\beta}_i$), I estimate the company's expected return (EFR) for each day of the event window. I use once the company's parameters derived from the market return and the market return in the event window, and once the firm's parameters derived from the applicable industry return and the industry portfolio return, as described algebraically in the following formula (3).

$$(EFR)_{it} = \hat{\alpha}_i + \hat{\beta}_i, (\text{Market/Industry return})_t \quad (3)$$

The estimated returns are then compared with the actual returns by subtracting the actual returns of the companies from the calculated estimated returns. This provides us with the abnormal returns of the firms (ARs). All the abnormal returns for the days of the event windows are added, to obtain the cumulative abnormal returns (CARs). As I aggregate the abnormal returns by simply adding the returns, I lose some accuracy by not taking into account the compounding effect. This is especially so for the longer event windows. To correct this, I recalculate each company's parameters and the abnormal returns using $\ln(1+X)$ rather than X , where X is the return. Using the natural logarithm function allows us to get the same compound effect by adding the abnormal returns of each day in the event window without multiplying, as is shown in formula (4). (This also facilitates the calculation of the standard deviation needed for the statistical significance checks.)

$$1 + CAR = \prod_{t=1}^n (1 + AR_t) \Leftrightarrow \ln(1 + CAR) = \sum_{t=1}^n \ln(1 + AR_t) \quad (4)$$

where CAR stands for the cumulative abnormal return, AR.

The cumulative abnormal returns are then normalized by dividing each CAR by its standard deviation; the result is denoted by SCAR. The calculation of the standard deviation, which is a special case of the general theory described in Campbell, Lo, and MacKinlay (1997),¹³⁰ is as follows. The SCAR is defined as

$$SCAR_i \equiv \frac{CAR_i}{\sqrt{\text{var}(CAR_i)}} \quad (5)$$

Assuming the null hypothesis, the CAR's variance has two components: the statistical uncertainty in the estimators of each firm's parameters ($\hat{\alpha}_i$ and $\hat{\beta}_i$), and the noise (ε_{it}) affecting the actual returns measured at the event window.

$$\begin{aligned} AR_{it} &= RET_{it} - EFR_{it} = RET_{it} - \hat{\alpha}_i - \hat{\beta}_i \cdot (\text{Market/Industry return})_t \\ &= (\alpha_i - \hat{\alpha}_i) + (\beta_i - \hat{\beta}_i) \cdot (\text{Market/Industry return})_t + \varepsilon_{it} \end{aligned} \quad (6)$$

assuming formula (2) holds throughout the event window, under the null hypothesis. The number of days in the event window is denoted by N, starting with day t_1 and ending at t_2 . Thus, $N = t_2 - t_1 + 1$. The cumulative market return for the event period is denoted by CMR.

$$CMR \equiv \sum_{t=t_1}^{t_2} (\text{Market/Industry return})_t \quad (7)$$

The cumulative abnormal returns can then be calculated:

$$\begin{aligned} CAR_i &= \sum_{t=t_1}^{t_2} (RET_{it} - EFR_{it}) = \sum_{t=t_1}^{t_2} RET_{it} - N \hat{\alpha}_i - \hat{\beta}_i \cdot CMR \\ &= N (\alpha_i - \hat{\alpha}_i) + (\beta_i - \hat{\beta}_i) \cdot CMR + \sum_{t=t_1}^{t_2} \varepsilon_{it} \end{aligned} \quad (8)$$

¹³⁰See *supra* note 122.

Because the estimation window and the event window are chosen so they do not overlap, there is no correlation between $\sum_{t=t_1}^{t_2} \varepsilon_{it}$ and either $\hat{\alpha}_i$ or $\hat{\beta}_i$. Thus,

I can calculate the variance of CAR as

$$\text{var}(CAR_i) = \text{var}\left(\sum_{t=t_1}^{t_2} \varepsilon_{it}\right) + N^2 \text{var}(\hat{\alpha}_i) + (CMR)^2 \text{var}(\hat{\beta}_i) + 2N(CMR)\text{cov}(\hat{\alpha}_i, \hat{\beta}_i) \quad (9)$$

Under the standard assumptions that the noises ε_{it} are not correlated and have the same standard deviation, which I denote by σ , I get

$$\text{var}\left(\sum_{t=t_1}^{t_2} \varepsilon_{it}\right) = \sum_{t=t_1}^{t_2} \text{var} \varepsilon_{it} = N\sigma^2 \quad (10)$$

Combining equations (9) and (10) I arrive at

$$\text{var}(CAR_i) = N\sigma^2 + N^2 \text{var}(\hat{\alpha}_i) + (CMR)^2 \text{var}(\hat{\beta}_i) + 2N(CMR)\text{cov}(\hat{\alpha}_i, \hat{\beta}_i) \quad (11)$$

I estimate $\text{var}(\hat{\alpha}_i)$, $\text{var}(\hat{\beta}_i)$, σ , and $\text{cov}(\hat{\alpha}_i, \hat{\beta}_i)$ from the OLS in the estimation period. In particular the covariance can be calculated from the regression formulas as

$$\text{cov}(\hat{\alpha}_i, \hat{\beta}_i) = -\frac{\text{var} \hat{\alpha}_i}{L} \sum_{t=e_1}^{e_2} (\text{Market/Industry Return})_{it} \quad (12)$$

where $[e_1, e_2]$ is the estimation window, and L is the length of the estimation period, i.e., $L = e_2 - e_1 + 1$.

After replacing variances and covariances on the right hand side of equation (11) with their OLS estimators, I obtain an estimator for the variance of the CARs, which I can substitute in (4). Since the estimation period is long (more than 150 days), I can safely assume the resulting SCAR has a standard normal distribution (rather than a Student-t distribution).

Finally, I add all the SCARs of the $n=23$ companies in the sample and obtain the sum of the normalized cumulative abnormal returns

$$\text{TSCAR} = \sum_{i=1}^n \text{SCAR}_i \quad (13)$$

This sum of normalized cumulative abnormal returns allows us to check the likelihood of the null hypothesis. This checks whether the results are statistically significant. Assuming a normal distribution $TSCAR \sim N(0, n)$, I can check the likelihood of obtaining such abnormal returns given the null hypothesis, i.e., given the event does not produce any abnormal returns and the excess returns measured are fully attributable to noise.

III. RESULTS

I ran the market tests on a thirty trading-day window [-1, +28], starting a day before the announcement date. I used the applicable industry portfolio for each of the twenty-three companies that are not classified as financial trading companies. The mean Cumulative Abnormal Return for the thirty trading day period was 4.5%, the median was 2.3%, and the weighted average CAR¹³¹ was $WACAR=3.5\%$ ($\pm 2\%$). The results came out statistically significant at the 4% level.¹³²

IV. ROBUSTNESS

I use a thirty day event window to allow the market to absorb the information about the anticipated destaggering. A side effect of expanding the event window, however, is some event windows of different companies overlap. This overlap slightly compromises the robustness of the findings since it increases the likelihood additional information disclosed during the event window will be taken into account and not be washed out.¹³³

¹³¹We can think of the denominator in equation (4), the standard deviation of CAR, as an inverse weight. We can therefore define the weighted average CAR according to

$$WACAR = \frac{\sum_{i=1}^n \frac{CAR_i}{\sqrt{\text{var}(CAR_i)}}}{\sum_{i=1}^n \left(\frac{1}{\sqrt{\text{var}(CAR_i)}} \right)} = \frac{TSCAR}{\sum_{i=1}^n \left(\frac{1}{\sqrt{\text{var}(CAR_i)}} \right)}$$

¹³²I do not include here the other results of the study, since they were not statistically significant.

¹³³Cf. Sanjai Bhagat & Roberta Romano, *Event Studies and the Law—Part I: Technique and Corporate Litigation*, 4 AM. L. & ECON. REV. 141 (2002) (describing the benefit of conducting event studies on events with different announcement dates).