

12-2015

Rethinking Chutes: Incentives, Investment, and Innovation

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Recommended Citation

Simone M. Sepe and Charles K. Whitehead, "Rethinking Chutes: Incentives, Investment, and Innovation," 95 Boston University Law Review (2015)

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RETHINKING CHUTES: INCENTIVES, INVESTMENT, AND INNOVATION

BY SIMONE M. SEPE* AND CHARLES K. WHITEHEAD**

INTRODUCTION	2028
I. INNOVATION, COMPENSATION, AND TAKEOVERS	2036
A. <i>Institutional Background</i>	2037
B. <i>Innovation, Protection, and Chutes</i>	2043
C. <i>The Value of Pay-Without-Performance: A Numerical Example</i>	2050
II. CHUTES, TAKEOVER PROTECTIONS, AND FIRM VALUE: AN EMPIRICAL ANALYSIS	2054
A. <i>Chutes and Corporate Governance</i>	2058
B. <i>Chutes and CEO Compensation</i>	2062
C. <i>Golden Parachutes, Innovation, and Firm Value</i>	2065
III. RETHINKING CHUTES	2068
A. <i>Proxy Advisor Recommendations</i>	2070
B. <i>Say-on-Golden-Parachute Disclosures</i>	2075
CONCLUSION.....	2081

Eighty-two percent of public firms have golden parachutes (or “chutes”) under which CEOs and senior officers may be paid tens of millions of dollars upon their employer’s change in control. What justifies such extraordinary payouts?

Much of the conventional analysis views chutes as excessive compensation granted by captured boards, focusing on the payouts that occur following a takeover. Those explanations, if they ever were complete, miss the mark today. This Article demonstrates, theoretically and empirically, that chutes are less relevant to a firm during a takeover than they are before a takeover,

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We appreciate the thoughtful comments and contributions of Derek Bambauer, Jane Bambauer, Kathie Barnes, Patrick Bolton, Bill Bratton, Jacques Crémer, Ron Gilson, Jeff Gordon, Henry Hansmann, Gerard Hertig, Saura Masconale, Toni Massaro, Bob Mundheim, Chris Robertson, Alan Schwartz, Jean Tirole, and Vincenzo Visco. We also appreciate the valuable research assistance provided by Katherine Shao and Weixiao Sun. The support of ANR–Labex IAST is also gratefully acknowledged. All errors and omissions are the authors’ alone.

particularly in relation to firms that invest in innovation. Chutes assure managers of realizing the long-term value of their work, even if the firm is later acquired. As a result, managers are more likely to make specific investments in innovation whose value may not be realized for some time—but which are essential to sustaining long-term performance. Moreover, when granted, a chute’s expected cost is a small fraction of what may be paid, reflecting the real likelihood a payment will never be made. That cost is more than offset by the value of the specific investments in innovation that managers are now more likely to make. Consequently, granting chutes tends to increase the value of innovative firms—promoting, rather than jeopardizing, shareholder interests in such firms.

Nevertheless, an analysis of chutes as a valuable tool in promoting innovation is largely missing from the corporate law scholarship, with important consequences. Two, in particular, are the negative view of proxy advisors on chutes, and recent federal Say-on-Golden-Parachute legislation that mandates certain types of disclosure regarding chutes. We recommend changes that properly reflect the low expected cost of chutes and their positive effect on innovation.

INTRODUCTION

By all accounts, Robert Marcus, Time Warner Cable’s new CEO from January 1, 2014, hit the corporate Lotto. Less than two months after becoming CEO, Mr. Marcus agreed to sell Time Warner to its largest rival, Comcast, for \$45 billion.¹ Following the sale, Mr. Marcus would have received nearly \$80 million in severance pay, more than \$1 million a day for the six weeks he was CEO before the agreement to sell.² That payment—referred to as a “golden parachute” or, colloquially, a “chute”—is principally comprised of cash, accelerated vesting of stock and stock options, insurance and various other fringe benefits, and excise tax gross-ups.³ The obligation to pay Mr. Marcus would have been triggered under the terms of his employment agreement by (i)

¹ David Gelles, *\$80 Million for 6 Weeks for Cable Chief*, N.Y. TIMES: DEALBOOK (Mar. 20, 2014, 8:55 PM), <http://dealbook.nytimes.com/2014/03/20/for-time-warner-cable-executives-billowing-golden-parachutes> [<http://perma.cc/JE24-KDWQ>]. The deal, which was scrutinized by the Department of Justice, fell apart just before the agreed sell date. Roger Yu & Mike Snider, *How Comcast, Time Warner Cable Deal Unraveled*, USA TODAY (Apr. 25, 2015, 12:27 PM), <http://www.usatoday.com/story/money/2015/04/24/how-comcast-deal-to-buy-time-warner-cable-fell-apart/26313471/> [<http://perma.cc/JM5K-KR5D>].

² See Comcast Corp., Registration Statement (Form S-4) 174 (Mar. 20, 2014).

³ *Id.* at 174-75; see also *infra* notes 54-57, 68-86 and accompanying text for a description of common chute terms.

a change in control of Time Warner, and plus (ii) his termination without “cause” or departure for “good reason.”⁴

Why did the Time Warner board authorize such an outrageous sum? One explanation for chutes is that the CEO controls the board, and using that control, she can personally benefit at the shareholders’ expense—either by protecting her job or negotiating an excessive payout, a windfall that fails to reflect actual performance, in the event of a takeover.⁵ From this perspective, chutes are evidence of the managers’ ability to influence the board—controlling who is appointed to the board, as well as information about the company provided to the board⁶—in order to extract excessive pay.⁷ Yet, that explanation appears to be increasingly less relevant particularly as CEO control is on the wane.⁸ In fact, rather than blocking takeovers and entrenching managers, chutes are more likely to allay a CEO’s personal concerns over losing her job, making her less likely to stand in the way of a deal⁹ and more

⁴ See Comcast Corp., *supra* note 2 at 167, 174; see also *infra* notes 68-74 and accompanying text (discussing double versus single triggers for chutes).

⁵ See Lucian Bebchuk et al., *Golden Parachutes and the Wealth of Shareholders*, 25 J. CORP. FIN. 140, 153 (2014) (suggesting that a short-term decline in stock price after a chute is adopted may evidence the chute’s effects on managerial slack and incentives for executives to sell-out target firms to potential acquirers); Peter C. Fiss et al., *How Golden Parachutes Unfolded: Diffusion and Variation of a Controversial Practice*, 23 ORG. SCI. 1077, 1080 (2012) (observing the widely-held view that chutes are “inappropriate payoffs for an abdication of stewardship”); Richard A. Lambert & David F. Larcker, *Golden Parachutes, Executive Decision-Making, and Shareholder Wealth*, 7 J. ACCT. & ECON. 179, 185-86, 201 (1984) (describing the chute’s role in insulating managers, but rejecting that explanation in favor of finding that chutes have a favorable effect on managers’ reactions to takeover bids); Damian J. Mogavero & Michael F. Toyne, *The Impact of Golden Parachutes on Fortune 500 Stock Returns: A Reexamination of the Evidence*, 34 Q.J. BUS. & ECON. 30, 37 (1995) (finding that shareholders perceive chutes to be an unfavorable signal concerning executive influence over the board and entrenchment).

⁶ See LUCIAN BEBCHUK & JESSE FRIED, *PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE COMPENSATION* 80-82 (2004).

⁷ See *id.* at 8.

⁸ See Marcel Kahan & Edward Rock, *Embattled CEOs*, 88 TEX. L. REV. 987, 989 (2010) (“The CEOs of publicly held corporations in the United States are losing power. They are losing power to boards of directors that increasingly consist of both nominally and substantively independent directors. And, perhaps more so, they are losing power to shareholders. This loss of power is recent (say, since 2000) and gradual, but nevertheless represents a significant move away from the imperial CEO . . .”).

⁹ See Ellie G. Harris, *Antitakeover Measures, Golden Parachutes, and Target Firm Shareholder Welfare*, 21 RAND J. ECON. 614, 614-15 (1990) (analyzing chutes as a means to align shareholder and management incentives); Michael C. Jensen, *Takeovers: Their Causes and Consequences*, 2 J. ECON. PERSP. 21, 39-40 (1988) (describing the conflict between shareholder and managerial interests in a takeover); Lambert & Larcker, *supra* note 5, at 183-85, 201 (describing the incentive alignment hypothesis and finding some basis for it in their empirical analysis); see also Kenneth Small et al., *Ownership Structure and*

likely to remain with the firm during (and potentially after) a contest for control.¹⁰

A related explanation is that large CEO chutes (coupled with chutes awarded to other officers and employees) deter prospective buyers by increasing the cost of an acquisition and, in turn, insulating senior managers from hostile bidders.¹¹ If that once was the purpose, however, it is less relevant today. For a chute to be triggered, there must be a change in control of the target, meaning a change in the ownership of a substantial block of stock.¹² Yet the recent rise of activist shareholders means that substantial influence can be exerted over a target's board without shareholders conducting a traditional tender offer¹³ or owning enough shares to trigger a change in control.¹⁴ In

Golden Parachutes: Evidence of Credible Commitment or Incentive Alignment?, 31 J. ECON. & FIN. 368, 381 (2007) (documenting empirically that the incidence of chutes decreases as managerial ownership increases, suggesting that they provide alternative means to align shareholder and management interests during a takeover). This is consistent with the reason many companies provide for adopting a chute. As one board noted, a chute "helps ensure that if a change in control is in the best interest of the shareholders, officers have appropriate incentives to remain focused on their responsibilities before, during and after the transaction without undue concern for their personal circumstances." Baxter Int'l Inc., Definitive Proxy Statement (Schedule 14A), at 29 (Mar. 21, 2014). Chutes also help secure the flow of accurate information to the board by minimizing a manager's incentives to manipulate corporate information (for example, by inflating corporate earnings) in order to reduce the likelihood of takeover. See JEAN TIROLE, *THE THEORY OF CORPORATE GOVERNANCE FINANCE* 304 (2006); see also Jensen, *supra*, at 21. Offsetting that benefit is the risk a chute will cause managers to accept a sub-optimal offer in order to realize the chute's substantial payments. See Bebchuk et al., *supra* note 5, at 141 (suggesting that large chutes may give managers incentives to sell a firm even when not in the best long-term interests of the shareholders). But see Judith C. Machlin et al., *The Effects of Golden Parachutes on Takeover Activity*, 36 J.L. & ECON. 861, 875 (1993) (finding no evidence that managers are willing to accept lower takeover premiums in anticipation of the payout they expect to receive under the target's chute).

¹⁰ See 3 STEPHEN A. RADIN, *THE BUSINESS JUDGMENT RULE: FIDUCIARY DUTIES OF CORPORATE DIRECTORS* 3507 (6th ed. 2009). Chutes may reduce the risk a manager will accept a job offer from a competitor during takeover discussions by ensuring they are protected against any losses and also by including a non-competition provision. See CenturyLink, Inc., Definitive Proxy Statement (Schedule 14A), at 60 (Apr. 16, 2014).

¹¹ See Jensen, *supra* note 9, at 40; Lambert & Larcker, *supra* note 5, at 185-86, 201 (describing but rejecting the wealth transfer hypothesis as not supported by the empirical results); Andrei Shleifer & Robert W. Vishny, *Management Entrenchment: The Case of Manager-Specific Investments*, 25 J. FIN. ECON. 123, 132 (1989). A small number of states prohibit a firm from authorizing chutes following commencement of a tender offer for its shares. See *infra* note 197 and accompanying text.

¹² See *infra* notes 68-74 and accompanying text.

¹³ See Charles R. Knoeber, *Golden Parachutes, Shark Repellents, and Hostile Tender Offers*, 76 AM. ECON. REV. 155, 155 (1986) (examining the contractual relationship between shareholders and managers, and how tender offers affect that relationship).

addition, chutes on average comprise only 0.31% of a target's market value¹⁵—an amount that is hardly likely to stymie a determined acquirer.¹⁶ Finally, even if chutes deter some takeovers, doing so may also enhance efficiency. Rather than a drop in value, shareholders of firms with CEO chutes typically receive a premium that is nearly double what shareholders of firms without chutes are paid.¹⁷

Both explanations, therefore, seemingly miss the mark.¹⁸ Since chutes are triggered by a change in control, much of the conventional analysis has

¹⁴ See Brian R. Cheffins & John Armour, *The Past, Present, and Future of Shareholder Activism by Hedge Funds*, 37 J. CORP. L. 51, 53-55 (2011) (describing the rise and influence of activist hedge fund investors). Chutes typically define a change in control to require the acquisition of at least twenty-five percent of the target's outstanding voting stock. See *infra* note 69 and accompanying text. Yet, as the Delaware Chancery Court observed in *Third Point LLC v. Ruprecht*, Civ. Act. No. 9469-VCP, 2014 WL 1922029, at *47 (Del. Ch. May 2, 2014), "a relatively small group of activist investors [can] achieve control [of a corporation], without paying a premium, through conscious parallelism"—parallel action by activist and other institutional shareholders without agreement among them to coordinate. See also *Yucaipa Am. All. Fund II, L.P. v. Riggio*, 1 A.3d 310, 359 n.254 (Del. Ch. 2010), *aff'd*, 15 A.3d 218 (Del. 2011) (unpublished table decision, 2011 WL 743427).

¹⁵ See ALVAREZ & MARSAL TAXAND, LLC, EXECUTIVE CHANGE IN CONTROL REPORT 2013/2014 at 3, 4 (2014) [hereinafter ALVAREZ], <http://www.alvarezandmarsal.com/sites/default/files/Change%20in%20Control.pdf> [<http://perma.cc/TB8B-H3J7>]; see also Lambert & Larcker, *supra* note 5, at 181 tbl.1 (showing that chutes on average comprised 1.73% of a target's market value from 1975 through 1982).

¹⁶ See *In re Pennaco Energy, Inc. S'holders Litig.*, 787 A.2d 691, 709 (Del. Ch. 2001) (stating court's reluctance to enjoin a transaction based on chutes, worth approximately one percent of the total transaction value, "that are relatively insubstantial in relation to the overall transaction at issue"); *Heineman v. Datapoint Corp.*, Civ. Act. No. 7956, 1990 Del. Ch. LEXIS 162, at *5-6 (Del. Ch. Oct. 9, 1990) (dismissing claim based on payments to directors and officers, since the payments "would [not] act as a material deterrent to either a proxy or consent contest . . . or even to a cash tender offer . . .").

¹⁷ See Susan Elkinawy & David Offenberg, *Accelerated Vesting in Takeovers: The Impact on Shareholder Wealth*, 42 FIN. MGMT. 101, 102, 111 (2013) (finding that the premiums paid for firms with accelerated vesting of CEO stock and stock options was 30.63% compared to 15.35% for firms without); see also Bebhuk et al., *supra* note 5, at 147-48 (finding a similar increase in premiums); Albert Choi, *Golden Parachute as a Compensation-Shifting Mechanism*, 20 J.L. ECON. & ORG. 170, 183 (2004) (finding that target shareholders can shift the cost of the chute to an acquirer who must include the chute's payments in its bid price). As described *supra* at note 9 and accompanying text, by allaying a CEO's personal concerns over losing her job, chutes are likely to increase the target management's bargaining power vis-à-vis prospective acquirers, hence increasing shareholder gains from a change in control.

¹⁸ There is also some evidence that introducing a chute corresponds to or signals a greater likelihood of takeover. See Jeffrey A. Born et al., *Golden Parachutes: Incentive Aligners, Management Entrenchers, or Takeover Bid Signals?*, 16 J. FIN. RES. 299, 307 (1993) (concluding that chutes signal an increased likelihood that a firm will receive a takeover bid); Lambert & Larcker, *supra* note 5, at 199 (determining that the favorable

focused on their payout and their effect on acquirers and targets at or about the time of a takeover. We provide a countervailing theory of chutes, with empirical support. As we explain, chutes are important whether or not a takeover occurs, particularly in innovative firms. With chutes, managers are assured of realizing the long-term value of their work even if the company is acquired, and as a result, they are more likely to specifically invest¹⁹ in the firm.²⁰ “Specific investment” refers to physical and human capital that has greater value when used in connection with a particular transaction, project, or firm than if used elsewhere. For example, buying a machine that is fully efficient only for a specific product would be a specific investment in physical capital, and investing time to understand the particular operations of a firm would be a specific investment in human capital.²¹ In addition, a chute’s cost at the time it is granted (its “expected cost”) is a small fraction of its later payout amount, reflecting the likelihood the chute will never be triggered, as well as the board’s ability to terminate managers who underperform.²² The expected cost is more than offset by the expected value of the specific investment a manager is now more likely to make.²³ This explains why—notwithstanding Mr. Marcus’s apparent windfall—over eighty-two percent of firms have adopted a chute.²⁴

Encouraging managers to specifically invest in the firm is essential to creating and sustaining innovation and firm value over time. A new product or

incentive effects of chutes improve as the probability of a takeover increases); Tatyana Sokolyk, *The Effects of Antitakeover Provisions on Acquisition Targets*, 17 J. CORP. FIN. 612, 625 (2011) (finding chutes and executive compensation plans are associated with a higher likelihood of takeover); see also Bebchuk et al., *supra* note 5, at 143-45 (finding that firms with chutes face a greater threat of takeover). However, that fails to explain why the vast majority of public firms today have adopted a chute. It is unlikely that eighty-two percent of public companies anticipate being acquired, and the chute’s ubiquity calls into question its value as a signaling device. To be credible, a signal must be costly or otherwise capable of separating those who provide the signal from those who do not. See ERIC A. POSNER, *LAW AND SOCIAL NORMS* 19-20 (2000).

¹⁹ We use the terms “specific investment” and “specifically invest” interchangeably throughout this Article.

²⁰ See *infra* notes 118-19 and accompanying text (stating that a chute acts as a “stipulated damages mechanism”).

²¹ See generally OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM* 52-56, 115 (1985) (describing different types of asset specificity).

²² See *infra* notes 121-22 and accompanying text (discussing a chute’s relative cost).

²³ See *infra* notes 121-22 and accompanying text (arguing that a chute’s net cost must take into account the profits derived from specific investments).

²⁴ See *infra* Figure 1 and accompanying text. Competition for talented CEOs must also be considered. All other things being equal, a talented CEO will prefer to join a firm that grants her a chute, particularly if the firm has a high probability of takeover. A chute can help attract more talented managers, ensuring them that they will retain the benefits of their specific investment, even upon a change in control. See *infra* notes 164-69 and accompanying text.

a new approach to how a firm operates can create new business opportunities, increase market share, and enhance firm value.²⁵ Managers are in the best position to assess specific investments due to their privileged access to company information,²⁶ and in theory, they are personally interested in pursuing investments that enhance firm value (some portion of which they may later realize through promotion or higher compensation).²⁷ In practice, however, differences between what managers know and what shareholders believe about a firm may distort a manager's incentives. When evaluating management performance, shareholders tend to rely on changes in a firm's stock price as an indication of change in fundamental value.²⁸ The informational quality of market prices, however, weakens when a firm invests in innovation—new products or services that are not already offered in the market, in part because the market is less able to assess their value.²⁹ As a result, shareholders are more likely to misinterpret a short-term drop in profits to be a sign of mismanagement when, in fact, it reflects the upfront costs of an investment whose value will not be realized until sometime in the future.³⁰ Under the circumstances, the drop may cause shareholders to look to remove the board or sell their shares to a prospective acquirer.³¹ In either case, the firm's managers face the risk of a new strategy that causes them to lose the value of their prior investments. Faced with that risk, managers are more likely to reduce their levels of specific investment, focusing instead on near-term performance, with the result over time being a decline in innovation and firm value.³² Chutes mitigate the likelihood of that outcome by insuring managers today against the loss of future value if there is a change in control.

²⁵ See *infra* notes 87-88 and accompanying text.

²⁶ See *infra* note 95 and accompanying text (discussing how asymmetric information affects specific investments).

²⁷ See *infra* note 92 and accompanying text.

²⁸ This presumes, of course, that a firm's stock price reflects all the information available about the issuer. In general, the current price of a security in an efficient capital market is the best estimate of a future price because the current price "fully reflect[s] all available information." This idea is referred to as the Efficient Capital Markets Hypothesis. See Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. FIN. 383, 383 (1970).

²⁹ See K.J. Martijn Cremers & Simone M. Sepe, *The Shareholder Value of Empowered Boards*, 68 STAN. L. REV. (forthcoming 2016) (manuscript at 8, 52) (on file with authors); Alex Edmans, *Does the Stock Market Fully Value Intangibles? Employee Satisfaction and Equity Prices*, 101 J. FIN. ECON. 621, 622 (2011) (explaining that the market may lack sufficient information to value intangibles); Alex Edmans et al., *The Real Costs of Financial Efficiency When Some Information Is Soft 2* (ECGI Finance, Working Paper No. 380/2013, 2015), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2316194 [<http://perma.cc/2JUE-S7ZW>].

³⁰ See *infra* notes 99-101 and accompanying text.

³¹ See *infra* note 102 and accompanying text.

³² See *infra* note 103 and accompanying text.

Our approach to chutes considers them from the perspective of value-enhancing compensation. Classic agency cost theory tells us that tying management compensation to performance—“pay-for-performance” that rewards managers for good outcomes and punishes them for bad ones—will induce them to exert effort and improve productivity.³³ Pay-for-performance, however, may have adverse consequences if the goal is to induce managers to explore new, untested investments, which are more likely to involve early failure and which shareholders are unable to accurately evaluate. Chutes address this concern by protecting managers against the inefficient actions of poorly-informed shareholders,³⁴ rather than providing a means for managers to benefit from excessive compensation at the shareholders’ expense, as is commonly believed.³⁵

Consequently, chutes are less relevant to corporate governance and firm value *during* a takeover than they are *before* a takeover.³⁶ To that extent, we argue that chutes and antitakeover protections—such as dual-class stock (indicating the presence of a controlling shareholder³⁷), staggered boards, and poison pills—are partial substitutes for one another. Each limits the managers’ risk of the value of their investments later being expropriated.³⁸ There is, however, an important distinction. Dual-class stock, staggered boards, and poison pills are traditional antitakeover devices that minimize the risk of expropriation by limiting the likelihood of a change in control.³⁹ By contrast,

³³ The classic economic reference is Bengt Holmstrom, *Moral Hazard and Observability*, 10 BELL J. ECON. 74, 75-80 (1979) (modeling the principal’s monetary payoff as a function of both the agent’s unobservable actions (her effort) and a random state of nature, with the expected realization of the principal’s monetary payoff increasing with the agent’s effort level).

³⁴ “Rational myopia” studies have long highlighted that asymmetric information problems may result in managers taking actions that fail to maximize long-term firm value, in anticipation of inefficient shareholder actions. See, e.g., Andrei Shleifer & Robert W. Vishny, *The New Theory of the Firm: Equilibrium Short Horizons of Investors and Firms*, 80 AM. ECON. REV., May 1990, at 148, 148 (showing that the stock market is likely to misprice complex new projects); Jeremy C. Stein, *Efficient Capital Markets, Inefficient Firms: A Model of Myopic Corporate Behavior*, 104 Q.J. ECON. 655, 667 (1989) [hereinafter Stein, *Efficient Capital Markets*] (modeling suboptimal managerial investment with poorly informed shareholders); Jeremy C. Stein, *Takeover Threats and Managerial Myopia*, 96 J. POL. ECON. 61, 63-67 (1988) [hereinafter Stein, *Takeover Threats*] (showing formally that managers react to the risk of a takeover by privileging actions that can boost stock prices).

³⁵ See *supra* notes 5, 11 and accompanying text.

³⁶ See *infra* notes 121-22 and accompanying text.

³⁷ See *infra* note 138 and accompanying text.

³⁸ See *infra* notes 143-44 and accompanying text (discussing the protection function of chutes).

³⁹ See *infra* notes 137-41 and accompanying text.

chutes are unlikely to deter takeovers,⁴⁰ but they still assure managers that they will benefit from the long-term value of their work by serving as a kind of insurance against a prospective change in a firm's investment strategy.⁴¹ Each encourages specific investment, but chutes provide the most direct means of doing so.

Nevertheless, an analysis of chutes as a value-enhancing governance device is largely missing from the corporate law scholarship, with important consequences. Two in particular are the negative view of proxy advisors on the adoption of chutes,⁴² and recent federal Say-on-Golden-Parachute legislation that mandates disclosure and a non-binding shareholder vote on chute payments in any acquisition requiring a proxy or consent solicitation.⁴³ We touch on both of those in this Article, recommending changes, consistent with this Article's analysis, that properly reflect the low expected cost of chutes at the time of grant and their positive effect on innovation and firm performance.⁴⁴

This Article proceeds as follows. Part I provides an overview of chutes and sets out our basic claim that chutes are a desirable means of promoting specific investment in innovation by managers. Part II sets out the empirical support for our claim, showing that adoption of chutes is associated with higher firm value in more innovative firms.⁴⁵ Finally, in Part III, we highlight the problems that

⁴⁰ See *supra* notes 15-16 and accompanying text.

⁴¹ See ROBERT CHARLES CLARK, CORPORATE LAW § 13.6.1, at 577 (1986) (“[T]his technique is more a form of insurance for managers than a true shark repellent.”).

⁴² See *infra* Section III.A.

⁴³ See *infra* Section III.B. The laws and regulations include (i) Section 951 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 1899 (2010) (codified at 15 U.S.C. § 78n-1(b) (2012)) (amending the Securities Exchange Act of 1934 by adding new Section 14A), which requires U.S. public companies to conduct a non-binding shareholder advisory vote on chute payouts in connection with mergers and other significant corporate transactions that are presented to the shareholders for approval, and (ii) Item 402(t) of Regulation S-K, 17 C.F.R. § 229.402(t) (2014), which requires disclosure of any agreement or understanding (written or unwritten) between the target or acquirer and named executive officers of each concerning any type of compensation (current, deferred, or contingent) based on or otherwise relating to the transaction.

⁴⁴ See *infra* notes 255-61 and accompanying text.

⁴⁵ In a co-authored study, one of us has shown that adoption of a chute was negatively associated with firm value during the period 1978–2008, both in the cross-section and the time series. See K.J. Martijn Cremers et al., *Commitment and Entrenchment in Corporate Governance*, 110 NW. L. REV. (forthcoming 2016) (manuscript at 30, 32) (on file with authors). In attempting to explain the negative association, the study notes that chutes—similar to poison pills—can be adopted by directors without the need for shareholder approval. See *id.* at 5, 35. This “unilateral” feature, the study suggests, may make it more likely that entrenchment motivates their adoption, which, in turn, could explain their negative association with firm value. See *id.* Conversely, other defensive mechanisms, such as a staggered board and a supermajority requirement to amend the charter, require shareholder approval and, hence, seem less likely to be primarily motivated by managerial

arise when chutes are considered only in the takeover context. For proxy advisors, we propose an assessment of chutes that takes account of their contribution to firm value, and for federal legislation, we argue for a new approach to disclosure.

I. INNOVATION, COMPENSATION, AND TAKEOVERS

Chutes are important to corporate governance,⁴⁶ but since they are triggered by a change in control,⁴⁷ much of the conventional analysis has been confined

entrenchment. *See id.* Consistent with this hypothesis, defensive mechanisms that require shareholder approval are positively associated with firm value in the time series over the period 1978-2008. *See id.* at 32. However, the study also notes that the new Say-on-Golden-Parachute requirements may have weakened the unilateral nature of chutes, introducing a change that has the potential to result in chutes having a positive effect on firm value. *See id.* at 40-41; *see also infra* Section III.B (discussing Say-on-Golden-Parachute rules). Alternatively, the change in the effect of chutes on firm value may simply reflect changes in the terms of the chutes themselves. From 2007 to 2010, the percentage of chutes with a single-trigger declined, and the percentage with a double-trigger rose. Double-triggers are preferred by institutional investors since any payout requires both a change in control and termination of the beneficiary, causing the chute to more closely resemble an insurance contract against job loss rather than a windfall. *See infra* notes 70-72, 219-20 and accompanying text. Either reason may explain the difference in the relationship between chutes and firm value between 1978-2008 and 2009-2012.

⁴⁶ To date, the principal discussion of the role of chutes in corporate governance has turned on whether firms should resemble “democracies” (with control by shareholders) or “dictatorships” (under the control of managers). Those supporting the “democratic” model have argued that shareholders have the greatest incentives to maximize corporate profits. *See* Henry Hansmann & Reinier Kraakman, *The End of History for Corporate Law*, 89 GEO. L.J. 439, 449 (2001). Accordingly, they contend, shareholders should have real authority over corporate decision-making. *See* Lucian Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833, 838-39 (2005) (arguing that enhancing shareholder power will improve corporate governance and increase firm value). From that perspective, the market for corporate control is essential to the efficient functioning of the firm, since it promotes managerial effort by exposing managers to the risk of being replaced. *See* Henry G. Manne, *Mergers and the Market for Corporate Control*, 73 J. POL. ECON. 110, 112-13 (1965) (explaining how mismanagement increases the probability of a future takeover). Antitakeover defenses—which, within the traditional framing, include chutes—shield managers from shareholder pressure and, therefore, weaken market discipline, making it easier for managers to pursue their own interests at the shareholders’ expense. *See* Lucian Bebchuk et al., *What Matters in Corporate Governance?*, 22 REV. FIN. STUD. 783, 784-85 (2009) (refining the set of relevant shareholder rights to those most strongly correlated with increased firm value); Paul Gompers et al., *Corporate Governance and Equity Prices*, 118 Q.J. ECON. 107, 126-29 (2003) (developing an index to measure the strength of shareholder rights and showing that firms with stronger shareholder rights (fewer antitakeover defenses) earn better returns than firms with weaker shareholder rights). By contrast, those who support the “dictatorship” model focus on the greater access of directors and managers to company information compared to shareholders and their better position to make informed decisions that benefit the firm. *See* Stephen M. Bainbridge, *Director Primacy and*

to how they affect acquirers and targets at or about the time of a takeover.⁴⁸ Most corporate law scholars consider chutes to be excessive compensation,⁴⁹ as well as an entrenchment device granted by captured boards,⁵⁰ partly in light of the costs an acquirer must incur if a chute is triggered.⁵¹ From that perspective, directors grant chutes in order to reduce the likelihood of a change in control—an odd response, if true, since a chute’s payments are quite small compared to the total purchase price a prospective acquirer must pay.⁵²

In this Part, we begin by providing an overview of chutes and their principal features. We then turn to a theoretical analysis of chutes, arguing that the conventional approaches are outdated and incomplete. Rather than influencing takeovers, chutes are principally designed to encourage managers to make specific investments in the firm—often in order to innovate new products or operations—whose results may not be realized until sometime in the future. Chutes do so by assuring managers they will benefit from the long-term value of their work even if there is a later change in control. In that respect, chutes are more likely to encourage long-term investment than incentives that compensate managers for current performance. We then offer a numerical illustration of our theoretical claim. This analysis forms the basis of our empirical study in the next Part.

A. Institutional Background

A typical golden parachute⁵³ entitles its beneficiaries (usually the CEO and other senior executives)⁵⁴ to specified payments following a change in control

Shareholder Disempowerment, 119 HARV. L. REV. 1735, 1745-46 (2006) (arguing that a central decision-making authority, such as the board, is an essential governance feature in conditions of asymmetric information such as those in a public corporation); William W. Bratton & Michael L. Wachter, *The Case Against Shareholder Empowerment*, 158 U. PA. L. REV. 653, 659-60 (2010). Under this model, antitakeover defenses—which, again, include chutes—benefit management decision-making and the firm by limiting intervention by less-informed shareholders. See Jean-Jacques Laffont & Jean Tirole, *Repeated Auctions of Incentive Contracts, Investment, and Bidding Parity, with an Application to Takeovers*, 19 RAND J. ECON. 516, 518, 530-32 (1988) (modeling this function of chutes); Stein, *Takeover Threats*, *supra* note 34, at 75-76. In no case do proponents describe the role of chutes in promoting specific investment by managers, a gap in the analysis that this Article fills.

⁴⁷ See *infra* notes 53-55 and accompanying text.

⁴⁸ See *supra* notes 9-17 and accompanying text.

⁴⁹ See *supra* notes 5, 11 and accompanying text.

⁵⁰ In that respect, chutes traditionally have been described as complementing antitakeover defenses like staggered boards and poison pills. See *infra* notes 137-41 and accompanying text.

⁵¹ See *supra* note 11 and accompanying text.

⁵² See *supra* note 15 and accompanying text.

⁵³ In this Article, we distinguish golden parachutes from “tin parachutes,” which typically provide a lower level of benefits to a larger portion of the firm’s employees upon a change in control. See RADIN, *supra* note 10, at 3555. The board may adopt tin parachutes,

of their employer.⁵⁵ Chutes specify which events will trigger a payment, as well as the form, amount, and duration of the payment.⁵⁶ In addition to a chute, a CEO or other manager may be entitled to severance pay if terminated for reasons other than a change in control—for example, due to a failure to perform to the board's expectations—although the size of the payment is likely to be smaller than under a chute.⁵⁷

Chutes emerged in the late 1970s and spread rapidly with the hostile takeover wave that crested in the late 1980s.⁵⁸ Takeovers created uncertainty for CEOs and others who began to worry about their jobs, and with good reason—a survey at the time found that former CEOs held significantly lower positions

although some states mandate that payments be made to employees who are terminated in connection with a change in control. *See, e.g.*, MASS. GEN. LAWS ch. 149 §§ 183(b), (c) (2014) (mandating two weeks' pay for each completed year of service for employees terminated during specified periods before and after a change in control); 15 PA. CONS. STAT. §§ 2581, 2582(a) (2013) (mandating one week's pay for each completed year of service, up to a maximum of twenty-six weeks, less any other severance payments that are made, to employees terminated during specified periods before and after a change in control); 28 R.I. GEN. LAWS §§ 28-7-19.2(b), (c), (d)(2) (2013) (requiring pay similar to Massachusetts, but applicable only to those employed for three or more years).

⁵⁴ Chutes typically extend to C-level executives (the chief executive officer, chief operating officer, chief financial officer, and chief legal officer), but they may also extend to executive vice presidents and others. *See* John M. Holcomb, *Golden Parachutes*, in 2 ENCYCLOPEDIA OF BUSINESS ETHICS AND SOCIETY 1022, 1022 (Robert W. Kolb ed., 2008).

⁵⁵ *See* Lambert & Larcker, *supra* note 5, at 200-01 (setting out an early study of chutes and their impact on managerial decision-making and shareholder wealth); Richard P. Bress, Note, *Golden Parachutes: Untangling the Ripcords*, 39 STAN. L. REV. 955, 956 (1987) (proposing an insurance law framework to analyze moral hazard caused by chutes).

⁵⁶ *See* Subcomm. on Exec. Comp., Am. Bar Ass'n, *Executive Compensation: A Road Map for the Corporate Advisor*, 40 BUS. LAW. 219, 326-55 (1984) [hereinafter *Road Map*] (surveying various forms of executive compensation and providing guidance for practitioners in setting up fair compensation). A chute's terms may appear in individual employment agreements or in general agreements with standardized terms for a group of beneficiaries; protections against a change in control can also be found in equity plans, annual bonus plans, and retirement and deferred compensation plans. *See* Barbara Becker & Eduardo Gallardo, *Golden Parachute Compensation Practice Pointers*, HARV. L. SCH. F. ON CORP. GOVERNANCE & FIN. REG. (Aug. 2, 2013), <http://blogs.law.harvard.edu/corpgov/2013/08/02/golden-parachute-compensation-practice-pointers> [<http://perma.cc/UX7M-76AU>].

⁵⁷ *See* ALVAREZ, *supra* note 15, at 11 (reporting that fifty-six percent of CEOs and other named executives are entitled to severance upon a non-change-in-control termination; on average, the value of change-in-control payments is 1.4 times (for CEOs) and 1.3 times (for others) the value of non-change-in-control payments).

⁵⁸ *See* Fiss et al., *supra* note 5, at 1078 (examining how chutes varied in the course of diffusion in response to population- and organization-level influences).

within a few years following sale of their firm.⁵⁹ Golden parachutes were the response. By the late 1980s, a majority of large U.S. public companies had granted chutes to their most senior executives.⁶⁰ Today, eighty percent of the top 200 companies by capitalization provide some type of change-in-control protection for their most senior executives,⁶¹ with an average payment of approximately \$30 million for CEOs and \$10 million for other executives.⁶²

As chutes spread, so did popular concern over what was perceived to be exorbitant pay.⁶³ In 1984, Congress enacted Sections 280G and 4999 of the Internal Revenue Code, which impose a twenty percent excise tax on excessive chute payments and deny tax deductions to firms that award them.⁶⁴ A payment is “excessive” if it equals or exceeds three times (3x) the employee’s

⁵⁹ See *id.* (citing a survey showing that most former CEOs of acquired companies ranked below the twentieth person in earnings in the new firm); see also Jay C. Hartzell et al., *What's in It for Me? CEOs Whose Firms Are Acquired*, 17 REV. FIN. STUD. 37, 49 (2004) (finding an overwhelming incidence of job loss for exiting CEOs, representing the end of a career for most CEOs).

⁶⁰ See Fiss et al., *supra* note 5, at 1078; see also Bebchuk et al., *supra* note 5, at 140.

⁶¹ See ALVAREZ, *supra* note 15, at 8 (82% for CEOs and 78% for other named executives); see also *infra* Figure 1. Ninety-nine percent of companies have some type of change-in-control protection if their company-wide equity plans, annual bonus plans, and retirement plans are included. See ALVAREZ, *supra* note 15, at 7. Executives typically are eligible for benefits on the same terms as other employees under company-wide plans, even if the company does not maintain executive-only chutes. See, e.g., Texas Instrument Inc., Definitive Proxy Statement (Schedule 14A), at 80 (Apr. 17, 2014) (disallowing individual chutes, but permitting executives to be eligible for the same change-in-control benefits as other employees).

⁶² See ALVAREZ, *supra* note 15, at 5-7. Twenty-one CEOs received chute payments of more than \$100 million between 2000 and 2012. See PAUL HODGSON & GREG RUEL, GMI RATINGS, TWENTY-ONE U.S. CEOs WITH GOLDEN PARACHUTES OF MORE THAN \$100 MILLION 3 (2012), http://go.gmiratings.com/rs/gmiratings/images/GMIRatings_GoldenParachutes_012012.pdf [<http://perma.cc/VMS3-UTHF>] (“These 21 CEOs walked away with almost \$4 billion in combined compensation.”). According to a 2013 study, at least a dozen CEOs have chutes with protections worth over \$100 million. See Jeff Green, *Golden Parachutes of \$100 Million for Fired CEOs Outlive Outrage*, BLOOMBERG (June 6, 2013, 5:00 PM), <http://www.bloomberg.com/news/2013-06-06/golden-parachutes-of-100-million-for-fired-ceos-outlive-outrage.html> [<http://perma.cc/G82S-RQBX>].

⁶³ See Detlev Vagts, *Challenges to Executive Compensation: For the Markets or the Courts?*, 8 J. CORP. L. 231, 232 (1983) (describing a contemporary debate over excessive executive compensation); Bress, *supra* note 55, at 955 (reporting an increased number of shareholder derivative suits challenging the validity of chutes). For more recent controversies, see HODGSON & RUEL, *supra* note 62, at 2.

⁶⁴ I.R.C. §§ 280G, 4999 (2012).

base salary.⁶⁵ Concerns over pay also arose during the 2008 financial crisis, resulting in the Dodd–Frank Act’s requirement that public companies hold a non-binding shareholder vote at least every three years on what they pay their most senior executives (“Say-on-Pay”).⁶⁶ The Act also requires disclosure of, and a non-binding shareholder vote on, golden parachute payments in any acquisition requiring a proxy or consent solicitation (“Say-on-Golden-Parachute”).⁶⁷

A change in control typically is triggered when a third party acquires a pre-determined percentage of a company’s voting stock or effects a change in the board.⁶⁸ Companies have some latitude in defining when a change occurs; thus, a small company may require the acquisition of a majority of shares, whereas a larger company with dispersed ownership may require a lower percentage.⁶⁹ Some use a “single-trigger,” requiring only a change in control for a payment to be made, but those firms are in the minority since a change in control alone will not necessarily cause a beneficiary to lose her job.⁷⁰ Instead, most chutes

⁶⁵ I.R.C. § 280G(b)(2)(a) (2012) (defining “excess parachute payment”). An employee’s base salary is her average annualized gross income during the five-year period before the date on which a change in ownership or control occurs. I.R.C. § 280G(d) (2012).

⁶⁶ 15 U.S.C. § 78n-1 (2012).

⁶⁷ *Id.*

⁶⁸ See Lambert & Larcker, *supra* note 5 at 179; *Road Map*, *supra* note 56, at 350; Kenneth C. Johnsen, Note, *Golden Parachutes and the Business Judgment Rule: Toward a Proper Standard of Review*, 94 YALE L.J. 909, 911-15 (1985) (providing background on chutes and the events that trigger them, and arguing that courts should examine the amount of compensation and whether a chute is structured as a risk-shifting device).

⁶⁹ See Becker & Gallardo, *supra* note 56. Chutes may require the acquisition of at least 20%-25% of a company’s stock to be regarded as a change in control. See Johnsen, *supra* note 68, at 925; see also *Road Map*, *supra* note 56, at 350 (stating 25% is a common threshold for a change in control). A sample definition of change in control is set out in Pfizer Inc.’s 2014 Proxy Statement:

“Change in Control” shall mean the consummation of any of the following events: (i) . . . at least a majority of the Board shall cease to consist of “Continuing Directors” . . . ; or (ii) any “person” or “group” (as determined for purposes of Section 13(d)(3) of the [Securities] Exchange Act [of 1934], except any majority-owned subsidiary of the Company or any employee benefit plan of the Company or any trust thereunder), shall have acquired “beneficial ownership” (as determined for purposes of Securities and Exchange Commission . . . Regulation 13d-3) of Shares having 30% or more of the voting power of all outstanding Shares, unless such acquisition is approved by a majority of the directors of the Company in office immediately preceding such acquisition; or (iii) a merger or consolidation occurs to which the Company is a party . . . ; or (iv) the sale of all, or substantially all, of the Company’s assets occurs; or (v) the stockholders of the Company approve a plan of complete liquidation of the Company.

Pfizer Inc., Definitive Proxy Statement (Schedule 14A), at v (Mar. 13, 2014).

⁷⁰ Single-triggers, consequently, tend to be disfavored by institutional shareholders and proxy advisors (like Institutional Shareholder Services (“ISS”) and Glass Lewis). See *A Review of Golden Parachutes*, GLASS LEWIS WORLD GOVERNANCE FOCUS (Glass Lewis & Co., S.F., Cal.), Oct. 2011, at 5, <http://www.glasslewis.com/assets/uploads/2012/04/>

today use a “double-trigger,”⁷¹ requiring a change in control plus involuntary termination of the beneficiary within a specified period afterwards.⁷² Termination usually is involuntary if the company fires the executive “without cause”⁷³ or the executive resigns for “good reason.”⁷⁴

GLWGFV314.pdf [<http://perma.cc/Y5HV-RMJA>] (stating that Glass Lewis recommended against approving single-trigger golden parachutes); Alert Letter, Frederic W. Cooke & Co., ISS Releases 2013 Policy Updates (Nov. 19, 2012), http://www.fwcook.com/alert_letters/11-19-12_%20ISS_Releases_2013_Policy_Updates.pdf [<http://perma.cc/A9VR-KCC8>] (stating ISS opposes single-triggers); *see also infra* notes 214-221 and accompanying text (arguing that the termination-insurance purpose of chutes is only advanced by a double-trigger mechanism). Note, however, that a single-trigger is common in equity plans (although it is becoming less so). *See infra* note 221 and accompanying text; *see also* ALVAREZ, *supra* note 15, at 9 (showing that 9% of the companies have at least one chute agreement with a single-trigger, usually relating to the acceleration of equity awards or a guaranteed annual bonus, and 85% use single-triggers in their equity plans); FREDERIC W. COOK & CO., EVOLUTION OF CHANGE-IN-CONTROL PRACTICES: 2007 VS. 2010, at 8 (2010), http://www.fwcook.com/alert_letters/08-20-10_Evolution_of_CIC_Practices_2007_vs_2010.pdf [<http://perma.cc/3JF5-KUKB>] [hereinafter FREDERIC W. COOK & CO., EVOLUTION] (stating that, in 2010, 43% of the largest 100 companies in the S&P 500 Index adopted single-triggers involving acceleration of equity vesting, down from 57% in 2007). TrustCo Bank Corp. NY provides one example of a single-trigger used in an equity incentive plan:

[Under the company’s 2010 Equity Incentive Plan,] all options, restricted stock, restricted stock units and performance share will become full[y] vested upon a change in control and the performance shares will be paid out based on the achievement of performance goals up to the date of the [change] in control.

TrustCo Bank Corp. NY, Definitive Proxy Statement (Schedule 14A), at 45 (Apr. 1, 2014).

⁷¹ *See* ALVAREZ, *supra* note 15, at 9 (showing that, in 2013, ninety-six percent of companies with agreements and/or policies had at least one agreement or policy containing a double-trigger).

⁷² *See* ALVAREZ, *supra* note 15, at 9; FREDERIC W. COOK & CO., EVOLUTION, *supra* note 70, at 7-8. The protected period averages two years, but ranges from one to three years. *See* ALVAREZ, *supra* note 15, at 9. In addition, three percent of companies surveyed implemented a modified single-trigger, requiring a change in control plus the executive’s *voluntary* resignation within a specified period afterwards. *See id.* (describing the “window periods” in some plans wherein executives may voluntarily resign within a specified period after the change in control and still receive the benefits provided under the agreement or policy); FREDERIC W. COOK & CO, EVOLUTION, *supra* note 70, at 7-8.

⁷³ Different definitions of “cause” center on the beneficiary’s fraudulent or illegal acts or material harm to the business. For example, TrustCo Bank defines “cause” as “the executive’s commission of an act of fraud, embezzlement, or theft constituting a felony against [the company] as finally determined by a court of competent [jurisdiction] or an unequivocal admission by the executive.” TrustCo Bank Corp. NY, *supra* note 70, at 44. In comparison, Honeywell International defines “cause” to include “(c)(i) the willful failure to perform, (ii) gross negligence in the performance of, or (iii) intentional misconduct in the performance of, significant duties that results in material harm to the business of the

Once a chute is triggered, the beneficiary is entitled to one or more types of payments, including cash, the accelerated vesting of equity awards (stock and stock options), the continuation of fringe benefits, and “gross-up” tax payments.⁷⁵ Cash payments usually are two to three times (2x-3x)⁷⁶ the beneficiary’s base salary and annual bonus, and often are paid in a lump sum.⁷⁷ The vesting of equity awards is often the most valuable portion of a chute, averaging around seventy percent of total value in 2013.⁷⁸ More than one-half of CEOs also continue to receive health and welfare benefits, often up to three

Company.” Honeywell Int’l Inc., Definitive Proxy Statement (Schedule 14A), at 70 (Mar. 13, 2014).

⁷⁴ See ALVAREZ, *supra* note 15, at 9; Becker & Gallardo, *supra* note 56. One example of “good reason” appears in the United Technologies Corp. proxy statement as follows:

“Good Reason” shall mean a resignation of employment by the Participant following: (i) a material reduction in the Participant’s annual base salary, annual bonus opportunities, long-term incentive opportunities or other compensation and benefits in the aggregate from those in effect immediately prior to the Change-in-Control; (ii) a material diminution in the Participant’s title, duties, authority, responsibilities, functions or reporting relationship from those in effect immediately prior to the Change-in-Control; or (iii) a mandatory relocation of the Participant’s principal location of employment greater than 50 miles from immediately prior to the Change-in-Control.

United Techs. Corp., Definitive Proxy Statement (Schedule 14A), at 85 (Mar. 14, 2014). See also Fiss et al., *supra* note 5, at 1079 (stating that substantive changes in an executive’s duties include a significant reduction in authority, forced transfer, and oppressive travel schedules); Stewart J. Schwab & Randall S. Thomas, *An Empirical Analysis of CEO Employment Contracts: What Do Top Executives Bargain for?*, 63 WASH. & LEE L. REV. 231, 261 (2006) (finding that, in 70%-80% of the change-in-control agreements surveyed, “good reason” includes duties inconsistent with a CEO’s position, relocation, and failure to compensate). Whether or not a beneficiary has “good reason” to leave a job may depend on the circumstances. For example, even if an executive keeps her original title as CEO and her original salary, the company’s change from an independent entity to a controlled subsidiary could still result in a sufficient diminution of her duties. See Becker & Gallardo, *supra* note 56.

⁷⁵ See Fiss et al., *supra* note 5, at 1079-80.

⁷⁶ See ALVAREZ, *supra* note 15, at 10 (stating that 43% of the CEOs surveyed have a two- to three-times multiple, while 42% have a multiple of three times or greater).

⁷⁷ See *id.* at 10 (reporting that 78% of CEOs surveyed are entitled to cash payments); Becker & Gallardo, *supra* note 56 (exploring the commonly seen elements of chute payments).

⁷⁸ See ALVAREZ, *supra* note 15, at 5-6 (reporting that long-term incentives, such as stock options, represent 67.1% of all chute payments for CEOs and 62.0% for other named executives); see also HODGSON & RUEL, *supra* note 62, at 3 (stating that equity profits have accounted for about 40% of final payments in the twenty-one CEO exit packages in excess of \$100 million since 2000); Hartzell, *supra* note 59, at 44-45, 59 (showing that, from a sample of several hundred completed acquisitions in the late 1990s, the biggest increase in wealth comes from appreciation of the CEOs’ direct stockholdings and options).

years afterwards or until the start of a new job with similar benefits.⁷⁹ Less common are enhanced retirement benefits,⁸⁰ use of the corporate jet,⁸¹ and the payment of legal fees,⁸² outplacement service fees,⁸³ and country club dues.⁸⁴ Finally, even though the practice is declining, a substantial number of firms provide beneficiaries with a gross-up amount⁸⁵ equal to any excise taxes due on the chute payments they receive.⁸⁶

B. *Innovation, Protection, and Chutes*

Innovation typically enhances firm value.⁸⁷ A new product or a new approach to how a firm operates can create new business opportunities,

⁷⁹ See ALVAREZ, *supra* note 15, at 13 (showing that 69% of CEOs surveyed receive an extension of health and welfare benefits).

⁸⁰ See *id.* at 14 (stating that 46% of the companies surveyed provide at least one executive with an enhancement in retirement benefits in the form, for example, of an increase in a retirement account, additional age and years of service credit, and accelerated vesting of a retirement benefit).

⁸¹ See Fiss et al., *supra* note 5, at 1079.

⁸² See ALVAREZ, *supra* note 15, at 14 (52%).

⁸³ See *id.* (36%).

⁸⁴ See *id.* at 5.

⁸⁵ See *id.* at 3 (finding that 30% of top executives are entitled to receive a gross-up payment, down from around 49% in 2011, and stating that 60% of companies currently providing gross-up payments intend to phase them out). Proxy advisors consider gross-up payments to be excessive, resulting in a decline in the number of companies providing it. See SULLIVAN & CROMWELL LLP, M&A EXECUTIVE COMPENSATION ENHANCEMENTS AND IMPACT ON THE SAY-ON-GOLDEN-PARACHUTE VOTE 1 (2013), https://www.sullcrom.com/siteFiles/Publications/SC_Publication_M_A_Executive_Compensation_Enhancements_and_Impact_on_the_Say_on_Golden_Parachute_Vote.pdf [<https://perma.cc/S9UW-RFSQ>] (reporting that ISS recommended a negative vote in three out of four deals surveyed that included granting new excise tax gross-ups); Kristin Gribben, *Proxy Advisers: Intermediaries Spark Change in Pay Practices*, FIN. TIMES (June 17, 2009, 4:15 PM), <http://www.ft.com/intl/cms/s/0/5e5f9a20-5a11-11de-b687-00144feabdc0.html#axzz34CTiASHp> [<http://perma.cc/82VU-GTSL>] (reporting that proxy advisory firm Risk Metrics listed a tax gross-up as a poor pay practice). Courts have also questioned the use of gross-ups. See *Tate & Lyle PLC v. Staley Cont'l, Inc.*, Civ. Act. No. 9813, 1988 WL 46064, at *7 (Del. Ch. May 9, 1988) (finding a gross-up to be “particularly troublesome,” but declining to preliminarily enjoin it since the board “seem[ed] to have shown that the plans were adopted in . . . good faith”). *But see In re Pennaco Energy, Inc. S’holders Litig.*, 787 A.2d 691, 709 n.33 (Del. Ch. 2001) (observing that a gross-up is “hardly uncommon”). More than one-half of the largest 200 companies have indicated they intend to phase-out this benefit in the future. See ALVAREZ, *supra* note 15, at 3.

⁸⁶ See *supra* notes 64-65 and accompanying text.

⁸⁷ See Atreya Chakraborty et al., *Antitakeover Provisions, Managerial Entrenchment, and Firm Innovation*, 72 J. ECON. & BUS. 30, 30 (2014) (“Firm innovation plays a critical role in creating, sustaining and adding firm value.”).

increase market share, and enhance firm value.⁸⁸ For innovation to succeed, however, a firm's managers must commit up front to making specific investments of physical assets and human capital.⁸⁹ Those investments involve "sunk costs," meaning that once they are incurred, they cannot be transferred to other firms or businesses or their transfer is limited.⁹⁰ Whether or not to make those investments is determined by the firm's managers, who have superior access to information about the firm and its affairs and, consequently, are in the best position to decide what is likely to maximize value.⁹¹

Managers, however, have their own stake in whether or not to invest. They are likely to benefit from any realized value through promotion, higher salary, bonus, or all of the above.⁹² Yet, whether and when an investment creates value is uncertain,⁹³ often involving a lag between when it is made and when its value is realized.⁹⁴ This can be a problem for managers because shareholders do not have the same private information that managers have about a firm's specific investments.⁹⁵ Rather, shareholders tend to rely on outcomes—

⁸⁸ See JOSEPH STIGLITZ, *CREATING A LEARNING SOCIETY: A NEW APPROACH TO GROWTH, DEVELOPMENT, AND SOCIAL PROGRESS* 14-15 (2014).

⁸⁹ Examples of specific investments appear *supra* at note 21 and accompanying text. The standard reference on specific investment is to studies by Oliver Williamson. See, e.g., WILLIAMSON, *supra* note 21, at 55, 115 (analyzing the impact of asset specificity on contractual relations in business).

⁹⁰ See *id.* at 55 (defining sunk costs as the opportunity costs of an investment whose value "is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated").

⁹¹ See TIROLE, *supra* note 9, at 2 (explaining that insiders, such as managers, have private information about a firm's technology and environment and its realized income); Bratton & Wachter, *supra* note 46, at 660 ("[T]he managers are the ones who have the day-to-day knowledge of the company, its history, policies, opportunities, vulnerabilities, and challenges.").

⁹² Within a principal-agent setting, the agent (a manager) responds to explicit incentives (such as changes in compensation) and implicit incentives (such as career concerns) set by the principal (the shareholders). See Robert Gibbons & Kevin J. Murphy, *Optimal Incentive Contracts in the Presence of Career Concerns: Theory and Evidence*, 100 J. POL. ECON. 468, 469 (1992) (arguing that firms should consider both explicit and implicit incentives when setting executive compensation); see also PATRICK BOLTON & MATHIAS DEWATRIPONT, *CONTRACT THEORY* 470 (2005).

⁹³ See Bengt Holmstrom, *Agency Costs and Innovation*, 12 J. ECON. BEHAV. & ORG. 305, 309 (1989) (observing that investments in innovation are riskier due to a higher probability of failure).

⁹⁴ See Patricia M. Dechow & Richard G. Sloan, *Executive Incentives and the Horizon Problem: An Empirical Investigation*, 14 J. ACCT. & ECON. 51, 51-54 (1991) (analyzing the horizon issues caused by the fact that investments in research and development are often characterized by long gestation periods that extend beyond the tenure of managers).

⁹⁵ See TIROLE, *supra* note 9, at 2 (arguing that information asymmetry plagues the agency relationship between managers and investors); Holmstrom, *supra* note 33, at 74 (offering a model of moral hazard within a principal-agent relationship where the agent has

changes in a firm's stock price—in order to evaluate the managers' performance.⁹⁶ The underlying assumption is that changes in stock price reflect information about investment decisions. Shareholders can rely on stock prices as an indication of fundamental value, narrowing the informational divide between shareholders and managers.⁹⁷ If accurate, the concerns arising from uncertainty over future outcomes are reduced, because long-term value is reflected in current market prices.

That assumption, however, weakens to the extent a firm invests in innovative technology—new products or services that are not already offered in the market, principally for two reasons. First, information about the long-term value of innovation tends to be “soft”—not verifiable and hence less likely to be accurately reflected in stock prices.⁹⁸ And, second, by investing in innovation, a firm's managers tend to increase upfront costs and decrease the firm's near-term profits, lowering the firm's current stock price.⁹⁹ Shareholders may take the short-term drop in profits (and the fall in stock price) to be a sign of mismanagement when, instead, it reflects the costs of an investment whose value will not be realized until later.¹⁰⁰

private information); Edmans et al., *supra* note 29, at 2 (explaining that “soft” (non-verifiable) information regarding a firm's intangible assets is difficult to incorporate into price through standard channels such as disclosure). This is especially true in the case of innovation. See Robert Daines & Michael Klausner, *Do IPO Charters Maximize Firm Value? Antitakeover Protections in IPOs*, 17 J.L. ECON. & ORG. 83, 102 (2001) (explaining that asymmetric information is more intense for investments in innovation, such as research and development (“R&D”) investments); Mark S. Johnson & Ramesh P. Rao, *The Impact of Antitakeover Amendments on Corporate Financial Performance*, 32 FIN. REV. 659, 664-65, 678 (1997) (using R&D as a proxy for investments characterized by a high level of asymmetric information about the investment's value); William Pugh et al., *Antitakeover Charter Amendments: Effects on Corporate Decisions*, 15 J. FIN. RES. 57, 57-58 (1992) (same).

⁹⁶ See *supra* note 28 and accompanying text.

⁹⁷ See Stein, *Takeover Threats*, *supra* note 34, at 62 (“[S]tockholders cannot observe all the inner workings of the firm and must rely on some imperfect summary statistic such as reported earnings.”).

⁹⁸ “Soft information” is information that cannot be easily verified by investors even when it is disclosed. See, e.g., TIROLE, *supra* note 9, at 249-50. As a result, soft information is more difficult to incorporate into stock prices. See Edmans et al., *supra* note 29, at 2.

⁹⁹ See Edmans et al., *supra* note 29, at 2-3 (suggesting that the difficulty of accounting for soft information leads to a difference between financial and real efficiency so that managers who want to show improvement are likely to cut intangible investments in order to increase current earnings).

¹⁰⁰ See, e.g., Louis K.C. Chan et al., *The Stock Market Valuation of Research and Development Expenditures*, 56 J. FIN. 2431, 2431 (2001) (showing empirically that the long-term benefits of R&D tend to be underestimated in the short-term); Allan C. Eberhart et al., *An Examination of Long-Term Abnormal Stock Returns and Operating Performance Following R&D Increases*, 59 J. FIN. 623, 623 (2004) (showing that R&D increases are beneficial, but that the market is slow to recognize the extent of the benefit); Stein, *Takeover*

That problem intensifies when firms compete to attract capital. Shareholders who make investment decisions based on relative performance are more likely to prefer firms with high short-term results over firms that opt to invest in longer-term projects.¹⁰¹ The result is that dispersed shareholders, attempting to maximize the value of their holdings, cannot credibly commit *not* to remove the board or sell the company upon a drop in performance—some shareholders may sell their shares, potentially to an acquirer, and others may vote out the existing board.¹⁰² The greater risk of a change in control, in turn, increases the risk to managers of losing the benefit of their sunk costs—in effect, exposing them to the risk of later expropriation of their specific investment in the firm.¹⁰³ Managers, in response, are more likely to reduce how much they are willing to specifically invest.

The remedy is to create a means to protect managers from the risk of later expropriation of their specific investments. One approach is to rely on the board—insulating directors from shareholder pressure so they can credibly commit to a long-term investment strategy.¹⁰⁴ Directors are better than public shareholders at assessing managerial performance. Their special access to firm-specific information (including soft information) permits them to better identify whether short-term underperformance is the result of mismanagement or the pursuit of specific investments that require upfront expenditures.¹⁰⁵

Threats, *supra* note 34, at 63-67 (showing formally that asymmetric information between managers and shareholders may lead the latter to undervalue corporate assets).

¹⁰¹ See Bratton & Wachter, *supra* note 46, at 700-03 (providing an example where long-term investment projects are likely to result in undervaluation of the company and demonstrating how this can affect a manager's investment strategy).

¹⁰² See Cremers & Sepe, *supra* note 29, at 8-9, 52-53 (describing the commitment problem affecting public shareholders in a competitive environment); see also Finn E. Kydland & Edward C. Prescott, *Rules Rather than Discretion: The Inconsistency of Optimal Plans*, 85 J. POL. ECON. 473, 473-74 (1977) (describing incentive problems that arise when a particular course of action is *ex ante* but not *ex post* profitable to an agent).

¹⁰³ As Oliver Williamson has observed, managers who develop firm-specific relationships need “more protection” than managers who can redeploy their knowledge and expertise to other firms. See Oliver Williamson, *Corporate Governance*, 93 YALE L.J. 1197, 1216 (1984).

¹⁰⁴ See Cremers & Sepe, *supra* note 29, at 3 (showing that the adoption of a staggered board is associated to long-term increases in firm value); William C. Johnson et al., *The Bonding Hypothesis of Takeover Defenses: Evidence from IPO Firms*, 117 J. FIN. ECON. 307, 307 (2015) (showing that antitakeover defenses, such as a staggered board, may provide a valuable commitment from shareholders to other stakeholders in the context of specific relationships); Richard H. Koppes et al., *Corporate Governance Out of Focus: The Debate over Classified Boards*, 54 BUS. LAW. 1023, 1051-53 (1999) (arguing that adoption of a staggered board benefits corporations through “increased stability and improved long-term planning”).

¹⁰⁵ See Bratton & Wachter, *supra* note 46, at 659-60 (“As between directors and shareholders, it is the directors who have the best access to information and are best able to serve as the monitors of the managers, increasing the likelihood of compliance with

Directors also face a reputational sanction if they default on a commitment,¹⁰⁶ a less likely threat for dispersed shareholders whose decisions tend to be anonymous. The board, however, is still subject to shareholder oversight—and shareholders can terminate directors they view to be performing poorly based on a short-term drop in profits that, as noted before, fails to reflect the value of a specific investment.¹⁰⁷ Measures to insulate the board from shareholder and market pressure (like a staggered board or a poison pill) can mitigate that risk and permit the board to more credibly commit to longer-term strategies.

Controlling shareholders can also protect managers from expropriation.¹⁰⁸ Controlling shareholders monitor management performance more closely than dispersed shareholders, since the cost of selling a large block of stock is greater.¹⁰⁹ They also tend to have better access to information,¹¹⁰ partly because they often hold board seats (directly or through a representative),¹¹¹ which enable them to better assess management performance. Moreover, unlike dispersed shareholders, controlling shareholders are more likely to be subject to reputational sanction if they default on a prior commitment,

continuing and emerging regulations.”); Eugene F. Fama & Michael C. Jensen, *Agency Problems and Residual Claims*, 26 J.L. & ECON. 327, 330, 332 (1983) (explaining that shareholders specialize in risk-bearing, managers specialize in making business decisions, and directors specialize in monitoring the effectiveness of those decisions); Eugene F. Fama & Michael C. Jensen, *Separation of Ownership and Control*, 26 J.L. & ECON. 301, 307-09 (1983) (arguing that a specialized organizational model efficiently controls agency costs).

¹⁰⁶ See Renée B. Adams et al., *The Role of Boards of Directors in Corporate Governance: A Conceptual Framework and Survey*, 48 J. ECON. LIT. 58, 94-96 (2010) (offering a survey of the literature on boards’ reputational issues).

¹⁰⁷ See *supra* notes 95-102 and accompanying text.

¹⁰⁸ See Bratton & Wachter, *supra* note 46, at 714 (arguing that controlling shareholders tend to favor a long-term investment horizon because they often cannot or do not want to sell their shares); see also *infra* note 138 and accompanying text (arguing that dual-class stock, which can act as a proxy for a controlling shareholder, can also provide sufficient insulation for managers).

¹⁰⁹ See generally Ronald J. Gilson & Jeffrey N. Gordon, *Controlling Controlling Shareholders*, 152 U. PA. L. REV. 785, 785 (2003) (arguing that the presence of a controlling shareholder involves a tradeoff between reduction of the classic agency problem between shareholders and managers and extraction of private benefits by the controller); Andrei Shleifer & Robert W. Vishny, *Large Shareholders and Corporate Control*, 94 J. POL. ECON. 461, 461-62 (1986) (arguing that large shareholders are likely to seek to improve the firm, even at their own expense, in part through close monitoring).

¹¹⁰ See Stephen M. Bainbridge, *Director Primacy: The Means and Ends of Corporate Governance*, 97 NW. U. L. REV. 547, 571 (2003).

¹¹¹ See Clifford G. Holderness & Dennis P. Sheehan, *The Role of Majority Shareholders in Publicly Held Corporations*, 20 J. FIN. ECON. 317, 324 (1988) (reporting that large-block shareholders or their representatives almost always serve as directors or officers); see also Clifford G. Holderness, *A Survey of Blockholders and Corporate Control*, FRBNY ECON. POL’Y REV., Apr. 2003, at 51 (offering a survey of the empirical literature on blockholders and corporate control).

especially if they serve as a firm's directors.¹¹² The combination—higher exit costs, greater access to information, and reputational risk—makes a controlling shareholder's commitment to a firm's long-term investment strategy more credible.¹¹³

Our focus is on using a manager's compensation contract to mitigate the risk of expropriation. Classic agency cost theory tells us that tying management compensation to performance—pay-for-performance that rewards managers for good outcomes and punishes them for bad—will induce them to exert effort and improve productivity.¹¹⁴ The standard approach, however, may have adverse consequences if the goal is to induce managers to *explore* new, untested investments rather than *exploit* existing ones.¹¹⁵ Pay-for-performance typically rewards (or penalizes) managers based on near-term outcomes and, consequently, is more likely to encourage managers to cause the firm's present expected output to rise, potentially at the expense of future returns.¹¹⁶ This is particularly true if a drop in near-term performance is more likely to lead to a change in control—perhaps an acquisition—when neither the shareholders nor the board can credibly commit to a long-term investment strategy.¹¹⁷ Consequently, compensation contracts that are designed to motivate innovation and other specific investments should be structured differently from standard pay-for-performance arrangements.

Chutes address this concern by protecting managers in the event of a change in control that is prompted by lower near-term performance that resulted from investments in innovation or other firm-specific projects. In this sense, chutes serve as a kind of insurance against a prospective change in the firm's invest-

¹¹² See *supra* note 106 and accompanying text.

¹¹³ We note that Dino Falaschetti, in *Golden Parachutes: Credible Commitments or Evidence of Shirking?*, 8 J. CORP. FIN. 159, 160-61 (2002), divided non-controlling shareholders into two categories: dispersed and more concentrated shareholders. He suggested that commitment problems are more severe in firms with more concentrated shareholders, since blockholders can more credibly threaten to interfere with incumbent managers. *Id.* at 160. Nevertheless, the ability of dispersed shareholders to quickly exit a firm is likely to raise equally severe commitment problems. See Cremers & Sepe, *supra* note 29, at 7-8, 52-53. Moreover, although Falaschetti empirically documented an increase in the level of chutes when ownership is more concentrated, those results have been challenged by subsequent empirical research. See Small et al., *supra* note 9, at 381 (finding little evidence that external ownership significantly increases the incidence of chutes).

¹¹⁴ See Holmstrom, *supra* note 33, at 75-80.

¹¹⁵ See Gustavo Manso, *Motivating Innovation*, 66 J. FIN. 1823, 1823-24 (2011).

¹¹⁶ See John Y. Zhu, *Myopic Agency* 1-3 (Aug. 15, 2012) (unpublished manuscript), <https://bepp.wharton.upenn.edu/bepp/assets/File/AE-SU12-Zhu.pdf> [<https://perma.cc/DM8M-6TLG>].

¹¹⁷ In a friendly deal, if the board agrees to sell the firm, consistent with its fiduciary duties, it will potentially cause managers to lose the value of their investments. In a hostile deal, the board may not be able to block a change in control, and public shareholders may choose to sell their shares to the acquirer.

ment strategy,¹¹⁸ and a chute's payments—similar to specified (or liquidated) damages—reflect the loss to managers of the value resulting from their sunk costs.¹¹⁹ They ensure talented managers they will retain the benefits of their investment, even upon a change in control.¹²⁰

Policymakers and the press typically focus only on the payments that must be made when a chute is triggered.¹²¹ That focus misses the mark. First, it fails to account for the chute's expected cost at the time it is granted. The expected cost is a small fraction of what is actually paid (if the chute is triggered at all), reflecting the likelihood that nothing will ever be paid, as well as the board's ability to terminate managers who underperform.¹²² Second, the chute's expected cost is offset by the value of the specific investments a manager is more likely to make as a result of having a chute. Any assessment of cost, therefore, must also account for the drop in firm value that would likely result from the chute's absence.

In the next Section, we present a numerical example to illustrate the intuition behind our theory of chutes. Our purpose in presenting this example is three-fold. First, we demonstrate that the standard approach to pay-for-performance may adversely affect a manager's incentives to invest in innovation. Second, we show how chutes can help offset the disincentive to innovate and thereby promote the creation of longer-term firm value. And,

¹¹⁸ See CLARK, *supra* note 41, at 577 (suggesting that golden parachutes benefit shareholders by reducing managers' incentives to stop takeovers by making costly defensive acquisitions and allowing a successful takeover of the firm along with substantial compensation to departing managers).

¹¹⁹ See *Koenings v. Joseph Schlitz Brewing Co.*, 377 N.W.2d 593, 604 n.12 (Wis. 1985) (describing chutes as a "stipulated damages mechanism"). On the economics of liquidated damages, see generally Lars A. Stole, *The Economics of Liquidated Damage Clauses in Contractual Environments with Private Information*, 8 J.L. ECON. & ORG. 582 (1992) (reconciling the economic efficiency of liquidated damages clauses with the law's unwillingness to allow them in contracts). Consistent with the economics of liquidated damages, a chute's payment should not make the outside option (cashing the chute) more rewarding to a manager than future employment (performance). See Simone M. Sepe, *Making Sense of Executive Compensation*, 36 DEL. J. CORP. L. 189, 231-32 (2011). Otherwise, the mechanism will raise the risk of moral hazard rather than create incentives to make specific investments. See *id.*

¹²⁰ This is, in fact, a stated reason why firms adopt chutes. See, e.g., CenturyLink, Inc., *supra* note 10, at 60 ("[P]rior to a takeover, [chute] protections help [the board] to recruit and retain talented officers."); Omnicare, Inc., Definitive Proxy Statement (Schedule 14A), at 35 (Apr. 18, 2014) (stating that the goal of the change-in-control plan is to retain qualified senior officers); The Travelers Cos., Definitive Proxy Statement (Schedule 14A), at 46 (Apr. 11, 2014) ("The Compensation Committee believes that severance and, in certain circumstances, change in control arrangements are necessary to attract and retain the talent necessary for our long-term success.").

¹²¹ Examples of the focus on payouts when a chute is triggered appear *supra* at notes 63-67 and accompanying text, and *infra* at notes 223-26, 234-39 and accompanying text.

¹²² See *infra* note 129 and accompanying text.

third, we illustrate how antitakeover devices (such as staggered boards and poison pills) and pay-for-performance plans can be regarded as partial substitutes for one another, reducing a chute's expected cost.

C. *The Value of Pay-Without-Performance: A Numerical Example*

In this Section, we set out a numerical example of our theory of chutes that involves a company that has hired a manager to run a business. For illustration, we assume the business lasts only two periods, with the first period representing the short-term and the second period representing the long-term. The manager can choose between two different projects, with the quality of each project—how successful it is likely to be and the potential value to the firm—being observable only by the manager. The first project—the “Regular Project”—involves simple, non-firm-specific investments, such as those needed to manufacture physical products that are similar to products already offered by other firms. There are no sunk costs, and the Regular Project delivers income of 100 in each period. The second project—the “Innovative Project”—involves specific investments to develop a new product, including investments in R&D and intense human capital investments by managers. Compared to the Regular Project, there is a greater risk of failure in pursuing a non-standard investment opportunity. Consequently, in the short-term, the Innovative Project delivers income of 100 with a probability of 50%, and 0 with a probability of 50%. In the long-term, however, the Innovative Project will deliver income of 200.¹²³ The manager's sunk cost to pursue the Innovative Project is 5.

Based on our assumptions, the Innovative Project is more socially desirable than the Regular Project because it will deliver a higher expected value across the two periods. The total expected income from the Innovative Project, net of the manager's sunk cost, equals $(0.5 \times 100) + 200 - 5 = 245$. The total income from the Regular Project equals $100 + 100 = 200$. Accordingly, if a manager chooses the Regular Project over the Innovative Project, society bears a welfare loss equal to 45 (that is, $245 - 200$).

The question this Article poses is whether a compensation structure can be developed that provides managers with an incentive to pursue the Innovative Project. For convenience, in this first illustration, we assume that the question of shareholder commitment (whether shareholders will remove the manager or

¹²³ Under standard moral hazard assumptions, the principal (the shareholders) (i) does not observe project selection by the agent (the manager), and (ii) cannot perfectly infer what project the manager undertook even after realization of the final payoff. See TIROLE, *supra* note 9, at 2, 15-17 (“[O]utsiders cannot observe insiders’ carefulness in selecting projects, the riskiness of investments, or the effort they exert to make the firm profitable (moral hazard).”). Accordingly, the Regular Project’s payoff in the second period is more accurately described as equal to $0.5 \times 200 = 100$, consistent with the assumption that the shareholders *ex post* remain unable to tell whether the manager undertook the Regular Project or the Innovative Project.

sell shares to an acquirer if near-term performance drops) is addressed by shielding the manager from removal until her long-term payout is realized. For example, there may be a staggered board and poison pill that mitigate the negative effects of the shareholders' inability to commit to a long-term investment plan.¹²⁴ Managers, however, may still be unwilling to exert the costly effort needed to pursue the Innovative Project. A standard pay-for-performance arrangement can address this concern so long as the percentage of income the manager is entitled to receive, α , makes it efficient for her to choose the Innovative Project over the Regular Project (referred to as her "incentive compatibility constraint").¹²⁵ In our numerical example, for $\alpha \geq 0.1$ (10%), the manager's incentive compatibility constraint is always satisfied; $0.1 \times [(0.5 \times 100) + 200] - 5 \geq 0.1 \times (100 + 100)$ holds, where the left-hand side of the equation represents the manager's payout from pursuing the Innovative Project, and the right-hand side represents her payout from pursuing the Regular Project.

Now suppose the manager is *not* shielded from removal. In that case, the manager faces the risk that shareholders will remove her in the event of a low near-term performance—either directly or as a consequence of a change in control. This risk is greater in the case of the Innovative Project, which has a fifty percent probability of delivering zero income in the short-term, compared to the Regular Project, which has no risk of early failure.¹²⁶ Under the circumstances, the standard pay-for-performance arrangement no longer favors the Innovative Project, because the manager may be terminated before realizing value in the long-term, causing her expected share of the long-term value to be expropriated. If we assume a 50% probability of the Innovative Project yielding zero income in the short-term, and a further 50% probability of the manager being removed in such event, the manager can expect only a 75%

¹²⁴ See *infra* notes 137-41 and accompanying text (discussing various antitakeover devices meant to insulate management from market pressure).

¹²⁵ The incentive compatibility constraint is a condition of optimal contracts that is satisfied when the contract induces an agent to choose actions that maximize the utilities of both the principal and the agent. See BERNARD SALANIÉ, *THE ECONOMICS OF CONTRACT* 122 (2d ed. 2005).

¹²⁶ For convenience, we assume here that the shareholders are unable to accurately evaluate why there is a low short-term outcome and, therefore, may misinterpret it as signaling managerial underperformance. In fact, within the numerical example, the realization of a zero payoff in the short-term would lead the shareholders to infer that the manager had selected the Innovative Project. As a result, the corporation's share price would reflect this information and the likelihood of managerial removal would decline. Therefore, in order to sustain the assumption that shareholders may misinterpret why a zero payoff occurred, we must further assume that in the market there are "bad" managers with projects of poor quality who also produce a zero payoff in the short-term. Under this assumption, shareholders face an adverse selection problem and do not know whether a zero payoff in the short-term signals a good manager who selected the Innovative Project or a bad manager who selected a poor-quality project.

probability of remaining in office when the long-term payout materializes.¹²⁷ Under the circumstances, her expected gains from pursuing the Innovative Project drop to $0.1 \times [(0.5 \times 100) + (0.75 \times 200)] - 5 = 15$, which is less than the 20 she would receive under the Regular Project.

It is worth emphasizing that, so long as there is a significant risk of the manager's removal before a long-term payout materializes, increasing the percentage of income the manager receives (α) will not alter her interest in pursuing the Regular Project. In our example, where the manager faces a 25% risk of removal, even granting her 100% of the income ($\alpha = 1$) does not satisfy the incentive compatibility constraint, because the manager's payout from pursuing the Innovative Project is still less than her payout from pursuing the Regular Project: $1 \times [(0.5 \times 100) + (0.75 \times 200)] - 5 < 1 \times (100 + 100)$.

These results illustrate the need for incentives that differ from the standard pay-for-performance arrangement to motivate managers to invest in innovation and other firm-specific projects. A golden parachute serves this goal by providing managers with insurance against the adverse consequences of short-term losses. In this sense, "pay-without-performance"—an incentive structure that encourages managers to develop innovative technologies, even if they result in lower performance in the short-term—may favor Innovative Projects that are socially valuable.

To illustrate, we modify our numerical example to reflect the economic benefits of chutes. We assume that a chute's payment is triggered upon a change in control in the short-term, which occurs with a 25% probability. For simplicity, we keep unchanged the share of income paid to the manager (α) at 10%. The question is how large the chute payment (G) should be in order to induce the manager to pursue the Innovative Project over the Regular Project. In other words, how large must G be in order for the following condition to hold: $0.1 \times [(0.5 \times 100) + (0.75 \times 200)] + (0.25 \times G) - 5 \geq 0.1 \times (100 + 100)$. This condition is satisfied for any G equal to or greater than 20.¹²⁸

On its face, $G \geq 20$ may appear to be a large amount. However, as discussed earlier,¹²⁹ the chute's expected cost is only a small fraction of the chute's dollar amount, reflecting the likelihood that a change in control may not occur and the chute may never be paid. In our illustration, where there is a 25% chance of a change in control, the chute's expected cost is only 5 (that is, 0.25×20), which is substantially less than its payout amount. Moreover, the expected cost is small compared to the expected gain for the shareholders. Although they expect to receive $0.9 \times (100 + 100) = 180$ under the Regular Project, under the

¹²⁷ The manager will be terminated with a 50% probability if the Innovative Project yields a zero payoff, which also occurs with a 50% probability. Hence, the manager can expect to be terminated with a probability equal to $0.5 \times 0.5 = 0.25$ (25%) and, conversely, she can expect to keep her job with a 75% probability.

¹²⁸ The formula simplifies to $15 + (0.25 \times G) \geq 20$, with $G \geq 20$.

¹²⁹ See *supra* notes 121-122 and accompanying text.

Innovative Project they expect to receive $0.9 \times [(0.5 \times 100) + (0.75 \times 200)] + 0.25 \times (200 - 20) = 225$, with a net expected gain of 45.¹³⁰

The adoption of an antitakeover device or the presence of a controlling shareholder can further lower the expected cost of a chute by reducing the likelihood of a change in control and, in turn, reducing the probability of a chute payment being made. Staggered boards and poison pills minimize the risk of expropriation by limiting the likelihood of a change in control.¹³¹ Chutes, by contrast, are unlikely to deter takeovers,¹³² but they assure managers they will benefit from the long-term value of their work, even if there is a later change in control. By increasing the likelihood of long-term employment, these devices can also increase the expected value of a manager's long-term compensation. To that extent, by encouraging managers to pursue Innovative Projects, chutes and antitakeover devices can be regarded as partial substitutes for one another.

A modification of our example illustrates this point. Suppose the company adopted a staggered board and a poison pill. In that case, we can expect a substantial drop in the likelihood of a change in control,¹³³ which we will assume (for the sake of illustration) drops from 50% to 20%. As a result, the probability the manager will be terminated in the short-term drops from 25% (without an antitakeover device) to 10% (a 20% chance of a change in control \times 50% chance of termination)—meaning that the manager has a 90% probability of receiving her share of the company's long-term income. Assuming that α remains 10%, the incentive compatible contract that induces the manager to choose the Innovative Project must satisfy the following condition: $0.1 \times [(0.5 \times 100) + (0.9 \times 200)] + (0.1 \times G) - 5 \geq 0.1 \times (100 + 100)$. In this case, the dollar amount of the chute remains the same ($G \geq 20$), but the chute's expected cost is remarkably lower. Rather than an expected cost of 5 (that is, 0.25×20), when there is a staggered board and poison pill, the expected cost reduces to 2 (that is, 0.1×20).

A partial substitute effect also takes place between chutes, antitakeover devices, and the pay-for-performance component of a manager's compensation package. Indeed, as long as the probability that the manager may be terminated

¹³⁰ To clarify: (i) 0.9 is the percentage of payoff to the shareholders; (ii) (0.5×100) is the expected payoff of the Innovative Project in the short-term; (iii) (0.75×200) is the expected payoff to the shareholders when the manager is not fired (the shareholders receive 200 with a probability of 75%); and (iv) $0.25 \times (200 - 20)$ is the payoff the shareholders expect to receive when the manager is fired and receives a payment under a chute.

¹³¹ See *infra* notes 137-41 and accompanying text.

¹³² See *supra* notes 15-16 and accompanying text (pointing out that because chutes, on average, comprise only 0.31% of a target's market value, this cost is unlikely to deter a determined buyer from initiating a takeover).

¹³³ See Lucian Bebchuk et al., *The Powerful Antitakeover Force of Staggered Boards: Theory, Evidence, and Policy*, 54 STAN. L. REV. 887, 890 (2002) (“[T]he managers of targets with staggered boards can—and most of the time do—maintain the target's independence.”).

in the short-term is relatively low, increasing the manager's pay-for-performance component can reduce the chute's dollar amount and its expected cost. To illustrate, assume again that the company has adopted a staggered board and poison pill, resulting in a 90% probability that the manager will enjoy her share of the company's long-term income. Also assume that α increases from 10% to 15%, reflecting an increase in pay-for-performance. Under those circumstances, in order for the manager's contract to be incentive compatible, the following must be satisfied: $0.15 \times [(0.5 \times 100) + (0.9 \times 200)] + (0.1 \times G) - 5 \geq 0.15 \times (100 + 100)$. Both the chute's dollar amount and its expected cost are substantially reduced compared to when the manager receives lower pay-for-performance. In effect, the increase in what the company agrees to pay in the ordinary course—the higher pay-for-performance during both the short- and long-term—reduces the chute's size. As a result, the incentive compatibility condition is satisfied for any golden parachute where $G \geq 5$, implying a chute's expected cost to the company of $0.1 \times 5 = 0.5$.¹³⁴

Of course, increasing pay-for-performance increases the actual cost of compensating the manager. Chutes are different, since payment is contingent on a later change in control and loss of employment. Hence, there is a trade-off between paying the manager more and reducing a chute's expected cost, which may need to be balanced on a case-by-case basis.

II. CHUTES, TAKEOVER PROTECTIONS, AND FIRM VALUE: AN EMPIRICAL ANALYSIS

In Part I, we highlighted a gap in the corporate law scholarship—arguing that chutes are less relevant to a firm during a takeover than they are before a takeover. Unlike traditional pay-for-performance, chutes can encourage managers to specifically invest in a firm by assuring them they will not lose the long-term value of their work.¹³⁵ Chutes do so by providing a payout if there is a later change in the firm's investment policies—whether due to sale of the firm or forced turnover among its directors—in situations where neither shareholders nor the board can credibly commit to a long-term strategy.¹³⁶

In this Part, we provide empirical support for our theoretical claims. Our approach is fundamentally different from the standard framing. That approach considers antitakeover devices, including chutes, staggered boards, and poison pills, to be principally designed to entrench managers by insulating them from

¹³⁴ Increasing the share of the manager's payoff (for example, up to 1/6) reduces the amount of the golden parachute to zero: $1/6 \times [(0.5 \times 100) + (0.9 \times 200)] - 5 \geq 1/6 \times (100 + 100)$ holds.

¹³⁵ See *supra* notes 118-19 and accompanying text (arguing that chutes provide compensation for managers' sunk costs).

¹³⁶ See *supra* notes 104-12 and accompanying text (describing how directors and controlling shareholders can, to a degree, insulate managers from market pressures).

market pressure.¹³⁷ Dual-class stock—which is used as a proxy for the presence of a controlling shareholder—is an exception, since existing studies acknowledge that concentrated ownership tends to insulate managers and render other protective features relatively unimportant.¹³⁸ Gompers, Ishii, and Metrick introduced this approach when building a broad index (the “GIM-Index”), based on twenty-four defensive features, which they found to be negatively correlated with firm value.¹³⁹ Bebchuk, Cohen, and Ferrell later criticized the GIM-Index, noting it was unlikely that all of the Index’s features contributed to the negative correlation.¹⁴⁰ Their refined index (the “E-Index”) retained only six of the GIM-Index’s original features—including chutes, staggered boards, and poison pills—that they argued were more likely to evidence management entrenchment.¹⁴¹

Both the GIM-Index and the E-Index assess antitakeover provisions cumulatively, with the level of insulation increasing in the number of protections a firm adopts.¹⁴² Although each provision insulates the board, they are also presumed to act as complements by increasing the level of insulation when adopted together. Unlike those studies, we consider chutes, staggered boards, and poison pills outside the takeover context. In that environment, we argue that they primarily act as partial substitutes, not complements—each promoting specific investment by limiting the managers’ risk of the value of those investments later being expropriated.¹⁴³ In other words, chutes can complement a staggered board or a poison pill if the goal is to reduce the likelihood of takeover. If the goal, however, is to promote specific investment,

¹³⁷ See Bebchuk et al., *supra* note 46, at 783 (arguing that antitakeover provisions that weaken shareholder rights, including chutes, should not be considered in isolation, but rather as a “universe of provisions together”). *But see* Cremers et al., *supra* note 45, at 4-5 (empirically challenging the assumption that board and managerial protection from removal is detrimental to shareholder interests).

¹³⁸ See Bebchuk et al., *supra* note 46, at 797 (explaining that the authors exclude firms with a dual-class structure from their analysis of protective features since “[i]n these companies the holding of superior voting rights might be sufficient to provide incumbents with a powerful entrenching mechanism that renders other entrenching provisions relatively unimportant”); Paul A. Gompers et al., *Extreme Governance: An Analysis of Dual-Class Firms in the United States*, 23 REV. FIN. STUD. 1051, 1052 (2010) (defining dual-class stock as the most extreme example of antitakeover protection).

¹³⁹ See Gompers et al., *supra* note 46, at 109-10 (finding such a correlation); *id.* at 145-50, app. 1 (defining the defensive features).

¹⁴⁰ See Bebchuk et al., *supra* note 46, at 784.

¹⁴¹ See *id.* at 784-85 (restricting the twenty-four provisions included in the GIM-Index to the following: (i) staggered boards, (ii) limits to shareholder amendments of the bylaws, (iii) supermajority requirements for mergers, (iv) supermajority requirements for charter amendments, (v) poison pills, and (vi) golden parachutes).

¹⁴² See *id.* at 785; Gompers et al., *supra* note 46, at 109.

¹⁴³ This means that, while a staggered board or a chute may have different values in preventing takeovers, they tend to have similar values when protecting specific investments.

those features also act as partial substitutes. To that extent, and in light of our empirical findings below that chutes are associated with increased value in innovative firms, the Indices' approach to chutes and their presumed entrenchment effect may need to be reassessed.¹⁴⁴

We begin our empirical analysis by investigating the most recent use of chutes, staggered boards, and poison pills,¹⁴⁵ finding evidence consistent with our view that chutes and antitakeover devices can be regarded as partial substitutes for one another in promoting specific managerial investment.¹⁴⁶ Next, we investigate how adopting a protective feature affects total CEO compensation, similarly finding support for our view that a firm's managers will demand to be paid more upfront if they are not protected against the risk of later expropriation.¹⁴⁷ After this, we show that chutes increase value in firms where inducing managers to undertake specific investment is likely to be more beneficial, such as firms that are innovative.¹⁴⁸

Our data come from several sources. The data for protective features—golden parachutes (*Parachute*), controlling shareholders (evidenced by the use of dual-class stock (*Dual*))¹⁴⁹, staggered boards (*Staggered*), and poison pills (*Pill*)—are from the Risk Metrics database, which covers the years 2007-2012.¹⁵⁰ We decided to restrict our analysis to the 2009-2012 interval principally for two reasons. First, we were concerned that including data from 2007 and 2008, when the financial crisis was in full force, could bias our analysis in light of the crisis's extraordinary effect on the general economy and stock prices.¹⁵¹ And, second, perhaps more importantly, recent analysis indicates a material risk that Risk Metrics may have underreported the level of *Parachute* starting in 2007,¹⁵² and in particular, in 2008.¹⁵³ In light of those

¹⁴⁴ A similar concern with proxy advisor recommendations is discussed *infra* at notes 221-230 and accompanying text.

¹⁴⁵ See *infra* Section II.A.

¹⁴⁶ See *supra* notes 134, 143-44 and accompanying text.

¹⁴⁷ See *infra* Section II.B.

¹⁴⁸ See *infra* Section II.C.

¹⁴⁹ See *supra* note 138 and accompanying text (defining dual-class stock and why it can be evidence of a controlling shareholder).

¹⁵⁰ Since 1990, the Investor Responsibility Research Center ("IRRC") has published volumes every two to three years that provide detailed information on several governance provisions, including antitakeover protective devices, at about 1500 firms (with the number of firms increasing to up to 1900 to 2000 firms in more recent volumes). After being acquired by Risk Metrics in 2007, the IRRC publications have become annual. See Bebchuk et al., *supra* note 5, at 142 (explaining that their data was taken from consecutive IRRC reports published in 9/1990, 7/1993, 7/1995, 2/1998, 11/1999, 2/2002, 1/2004, and 1/2006).

¹⁵¹ Jean Tirole, *Overcoming Adverse Selection: How Public Intervention Can Restore Market Functioning*, 102 AM. ECON. REV. 29, 29-33 (2012). See also *infra* note 165 and accompanying text (discussing adverse selection).

¹⁵² A forthcoming study by Martijn Cremers, Allen Ferrel, Paul Gompers, and Andrew Metrick (the "CFGM study") hand-checked the Risk Metrics data on golden parachutes for

risks of bias, we conservatively constrained our analysis to the period beginning in 2009.

Each protective feature is computed as an indicator (or dummy) variable, with a value of one if the firm has that feature and zero if not. Data on executive compensation (*CEO Total Compensation*, as reported in public filings with the Securities and Exchange Commission)¹⁵⁴ are from the ExecuComp database and cover the period 2009-2012.¹⁵⁵ Data on the variables we employ in the regression analysis of chutes are from a dataset constructed by one of us for an earlier co-authored study and cover the period 2009-2011.¹⁵⁶ Those variables include: *Firm Value*, as measured by Tobin's Q;¹⁵⁷ *Assets*,

the period beginning in 2007. E-mail from Martijn Cremers, Professor of Fin., Univ. Notre Dame – Mendoza Coll. of Bus., to Simone Sepe, Professor of Law & Fin., Univ. of Ariz. – James E. Rogers Coll. of Law (Sept. 30, 2015, 1:41 PM) (on file with authors). The CFGM study found that Risk Metrics appears to have underreported the levels of golden parachutes during such period, with a substantial under-reporting of the levels of golden parachutes for the year 2008. *Id.*

¹⁵³ More specifically, while Risk Metrics reported a level of *Parachute* around 34% for the year 2008, the CFGM research reports a level of about 81%. However, the levels of *Parachute* reported by Risk Metrics for 2009 are similar to those found by CFGM for 2008. Hence, we have reason to believe that starting in 2009 the possibility that Risk Metrics could have miscoded, and therefore, misreported data on *Parachute* is minimized. *Id.*

¹⁵⁴ Federal securities laws require publicly traded companies to disclose a number of specified items in their annual reports on Form 10-K, including executive compensation. See *Executive Compensation*, U.S. SEC. & EXCH. COMM'N (Oct. 21, 2014), <http://www.sec.gov/answers/execomp.htm> [<http://perma.cc/K7CK-KTUH>].

¹⁵⁵ The ExecuComp database provides information on executives at S&P 1000 firms, including information on salaries, bonuses, and stock options since 1992. Since the ExecuComp database only provides data on an annual basis, the data are pro-rated as in Viral Acharya et al., *Seeking Alpha, Taking Risk: Evidence From Non-Executive Pay in U.S. Bank Holding Companies* 39 (Wharton Fin. Insts. Ctr., Working Paper No. 13-18, 2014), <http://fic.wharton.upenn.edu/fic/papers/13/13-18.pdf> [<http://perma.cc/9Q96-EEFR>] (“[W]e pro-rate the annual aggregate cash compensation and the annual aggregate stock compensation to the top executives team in the same proportions as total cash and stock compensation.”).

¹⁵⁶ See Cremers & Sepe, *supra* note 29, at 30-31.

¹⁵⁷ Tobin's Q is the ratio of a firm's market value (defined as the firm's total liabilities, minus its deferred taxes and investment tax credits, plus the value of its preferred stock and the market value of its common stock) divided by the replacement cost of its assets. See Eugene F. Fama & Kenneth R. French, *Testing Trade-Off and Pecking Order Predictions About Dividends and Debt*, 15 REV. FIN. STUD. 1, 7-8 (2002). The measure was introduced by James Tobin in *A General Equilibrium Approach to Monetary Theory*, 1 J. MONEY, CREDIT & BANKING 15 (1969) (“According to this approach, the principal way in which financial policies and events affect aggregate demand is by changing the valuations of physical assets relative to their replacement costs.”). Tobin's Q has become a commonly recognized proxy for market valuation. See, e.g., Philip G. Berger & Eli Ofek, *Diversification's Effect on Firm Value*, 37 J. FIN. ECON. 39, 40, 47 (1995); Larry H. P. Lang & René Stulz, *Tobin's Q, Corporate Diversification, and Firm Performance*, 102 J. POL.

which measures a firm's assets at book value; *Leverage*, which measures a firm's borrowings and other leverage at book value; *Capital Expenditures*, which measures a firm's expenses used to acquire or upgrade assets as a proportion of total assets; and *R&D*, which sets out a firm's research and development expenses (as a measure of the firm's innovation) in proportion to total sales.¹⁵⁸ Although data availability varies depending on the source, overall our dataset covers about 1600 firms.

A. *Chutes and Corporate Governance*

Within our theoretical framework, we identified two protective features, in addition to chutes, that promote specific investment by managers: the presence of a controlling shareholder and the adoption of an antitakeover protection like a staggered board or a poison pill.¹⁵⁹ Our argument is that each feature acts as a partial substitute for the others in promoting specific investment.

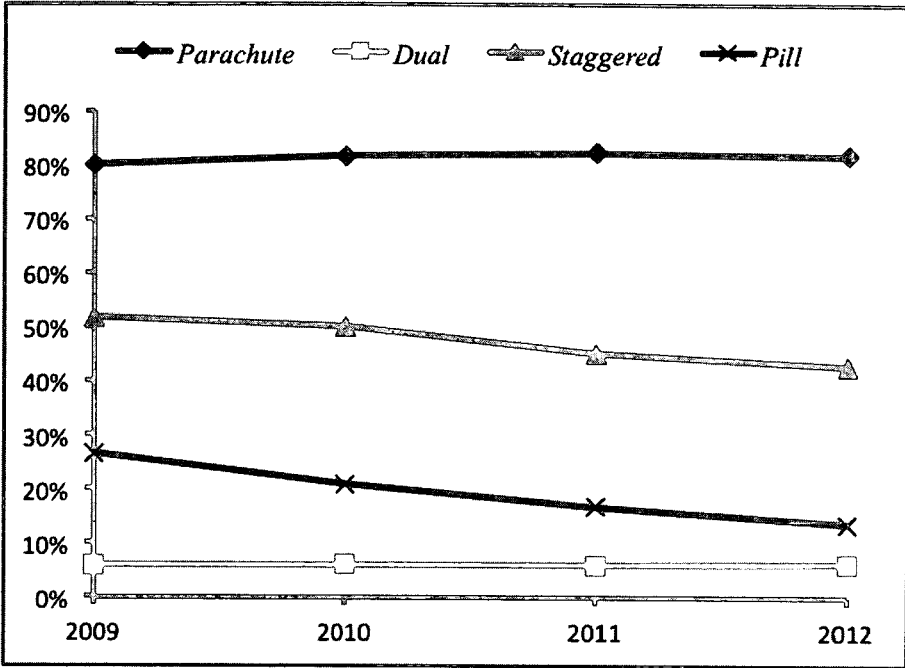
We begin by documenting the levels of each feature from 2009 to 2012 in Figure 1 below.

ECON. 1248, 1249-50 (1994) (studying whether the market valuation of a firm correlated with its degree of diversification by focusing on Tobin's Q, which they defined as the "present value of future cash flows divided by the replacement cost of tangible assets"); Randall Morck et al., *Management Ownership and Market Valuation: An Empirical Analysis*, 20 J. FIN. ECON. 293, 294 (1988); David Yermack, *Higher Market Valuation of Companies with a Small Board of Directors*, 40 J. FIN. ECON. 185, 186 (1996). One major advantage of Tobin's Q is its computational simplicity. All of its determinants are retrievable from existing data sources such as, for example, the Compustat database. Tobin's Q, however, is not without its critics. First, market value may not reflect the marginal cost of capital, but instead may reflect the average cost of capital. In that case, firm value may not be properly captured by Tobin's Q. See Joao F. Gomes, *Financing Investment*, 91 AM. ECON. REV. 1263, 1264-65 (2001); see also Eric B. Lindenberg & Stephen A. Ross, *Tobin's q Ratio and Industrial Organization*, 54 J. BUS. 1, 8-9 (1981). Second, Tobin's Q may not reflect an accurate valuation of the firm due to market irrationality. Irrationality could be significant if investor sentiment drives valuations in the stock market. See Malcolm Baker et al., *When Does the Market Matter? Stock Prices and the Investment of Equity-Dependent Firms*, 118 Q.J. ECON. 969, 969-70 (2003). With those caveats in mind, Tobin's Q is still a commonly accepted measure of firm valuation, including within the scholarship on corporate governance. See, e.g., Gompers et al., *supra* note 46, at 126 ("Our valuation measure is Tobin's Q, which has been used for this purpose in corporate-governance studies . . .").

¹⁵⁸ R&D is a standard measure of innovation. See Edwin Mansfield, *R&D and Innovation: Some Empirical Findings*, in *R&D, PATENTS, AND PRODUCTIVITY* 127, 127 (Zvi Griliches ed., 1984), <http://www.nber.org/chapters/c10047.pdf> [<http://perma.cc/5JRR-Z6YR>].

¹⁵⁹ See *supra* notes 104-12 and accompanying text.

Figure 1: Levels of Golden Parachutes, Dual-Class Stock, Staggered Boards, and Poison Pills



As Figure 1 shows, staggered boards and poison pills gradually declined during 2009-2012,¹⁶⁰ a finding that is consistent with the decline in defenses that other studies have found.¹⁶¹ One explanation for the drop is the growing importance of institutional investors and increased shareholder activism.¹⁶²

¹⁶⁰ The level of *Staggered* and *Pill* went from around 52% and 27%, respectively, in 2009 to around 43% and 14%, respectively, in 2012.

¹⁶¹ See, e.g., Alma Cohen & Charles C.Y. Wang, *How Do Staggered Boards Affect Shareholder Value? Evidence from a Natural Experiment*, 110 J. FIN. ECON. 627, 627-28 (2013) (reporting that the number of S&P 500 companies with a staggered board declined by more than 50% from 2000 to 2012); Cremers & Sepe, *supra* note 29, at 31 (finding that, after 2006, the ratio of firms in their panel with a staggered board steadily declined until reaching about 47% in 2011).

¹⁶² See Patrick S. McGurn, *Classification Cancels Corporate Accountability*, 55 STAN. L. REV. 839, 839-40 (2002) (“Over the past decade, executives have seen successive doomsday takeover defenses, including . . . poison pills . . . wither in the face of a rising tide of investor activism.”); see also Jeffrey N. Gordon, *Proxy Contests in an Era of Increasing Shareholder Power: Forget Issuer Proxy Access and Focus on E-Proxy*, 61 VAND. L. REV. 475, 477 (“The ability of . . . institutional actors to coordinate at a much lower cost changes

Unsurprisingly, a key focus of shareholders has been on removing defenses in light of studies (like those introducing the GIM-Index and the E-Index) that found them to entrench management and cause a drop in firm value.¹⁶³

By contrast, chute levels marginally increased over the same period. From 2009 to 2012, *Parachute* increased from approximately 80% to 82%. One possible explanation is the competition among firms for executive talent. Firms typically benefit from competition. For talent, it generally helps by allocating the best managers to the largest and most complex firms.¹⁶⁴ However, the

the collective action equation and rejuvenates a shareholder activism that depends on voting as a credible mechanism for shareholder influence . . .”).

¹⁶³ See *supra* notes 137-41 and accompanying text. We note that recent studies call into question the standard interpretation of evidence in existing empirical studies, finding that insulation measures can increase firm value over time. In a recent paper, Cremers and Sepe show that the negative cross-sectional impact of staggered boards on firm value is reversed in the time-series. See Cremers & Sepe, *supra* note 29, at 5-7. More specifically, using a comprehensive sample from 1978-2011, they show that firms that adopted a staggered board increased in value, while de-staggering was associated with a decrease in value over time. See *id.* at 38-42. In the finance companion to this study, the authors also show that the decision to adopt a staggered board seems to be endogenous and related to an *ex ante* drop in firm value. See K.J. Martijn Cremers et al., *Staggered Boards and Firm Value, Revisited* 5, 21-22 (July 14, 2014) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2364165 [<http://perma.cc/ZZ2G-UQAK>] (“Our time series and portfolio analyses suggest that the negative correlation identified in prior cross-sectional studies of the association of staggered boards with firm value might be due to reverse causality.”). As a potential explanation of those results, they argue that staggered boards may promote long-term value creation by serving as a credible commitment device against short-term shareholder interference. See Cremers & Sepe, *supra* note 29, at 7-8, 52-53. In another recent paper, Popadak shows that stronger shareholder governance may significantly affect a firm’s corporate culture, producing greater results-orientation but lesser customer-focus, integrity, and collaboration. See Jillian Popadak, *A Corporate Culture Channel: How Increased Shareholder Governance Reduces Firm Value* 1 (Oct. 25, 2013) (unpublished manuscript), <http://ssrn.com/abstract=2345384> [<http://perma.cc/AQL5-MVTU>] (“[I]n contrast to the paradigm that stronger governance is good, firm value declines 1.4% through this corporate culture channel.”). Consistent with a positive link between governance and value, Popadak shows that stronger shareholder governance may result in reduced corporate gains, as intangible assets associated with customer satisfaction and employee integrity deteriorate. *Id.* at 3, 26, 28-30. Popadak also shows that greater shareholder governance causes managers to concentrate on easy-to-observe benchmarks at the expense of harder-to-measure intangibles, even though doing so may not be in the firm’s best long-term interests. See *id.* at 3.

¹⁶⁴ See Antonio Falato et al., *Which Skills Matter in the Market for CEOs? Evidence from Pay for CEO Credentials* 3 (Feb. 28, 2014) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1699384 [<http://perma.cc/7SYK-CZLU>]. The correlation between CEO pay and firm size, see Alex Edmans et al., *A Multiplicative Model of Optimal CEO Incentives in Market Equilibrium*, 22 *REV. FIN. STUD.* 4881, 4882-83 (2009); Xavier Gabaix & Augustin Landier, *Why Has CEO Pay Increased So Much?*, 123 *Q.J. ECON.* 49, 50-51 (2008), is consistent with the role that competition plays

competition for talent also creates an adverse selection problem.¹⁶⁵ Absent protection against the risk of a change in investment strategy, talented managers (who are more likely to make specific investments) will prefer firms with a lower likelihood of a change in control.¹⁶⁶ Those firms, however, tend to outperform their peers and, therefore, are less in need of talented managers.¹⁶⁷ Conversely, a firm with a higher probability of takeover—one that is more likely to underperform—tends to be less appealing to talented managers. The calculus is simple. A manager whose specific investment is less valuable is less concerned with future expropriation because she has less to lose. Firms in greater need of talented managers end up with less talented managers, and *vice versa*.¹⁶⁸ Chutes help address this imbalance by assisting underperforming firms in a competitive market to attract more talented managers. They do so, because—notwithstanding the greater likelihood of a change in control, such as

in sorting managerial candidates. The relationship, however, may only be a recent phenomenon; executive compensation remained fairly flat from the mid-1940s to the mid-1970s, even though firms grew considerably over the same period. See Carola Frydman & Raven E. Saks, *Executive Compensation: A New View from a Long-Term Perspective, 1936–2005*, 23 REV. FIN. STUD. 2099, 2100 (2010).

¹⁶⁵ Adverse selection arises when an agent has hidden knowledge of her own characteristics or value. Nobel laureate George Akerlof introduced the classic treatment of adverse selection in the products market. Under conditions of uncertainty, a buyer does not know for how much a seller is willing to sell a good, in other words, whether the seller's type is "good" or "bad," and vice versa. See George A. Akerlof, *The Market for "Lemons": Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488, 490 (1970). Akerlof shows that, when the number of bad sellers (or buyers) is relatively high, buyers (or sellers) may prefer to stop exchanging goods, leading to a market breakdown. See *id.* Other examples of adverse selection include (i) when a firm hires a worker and does not know the worker's ability, see Michael Spence, *Job Market Signaling*, 87 Q.J. ECON. 355, 356 (1973), and (ii) when an insurance company insures a car and the driver has private information about her risk propensity, see Michael Rothschild & Joseph Stiglitz, *Equilibrium in Competitive Insurance Markets: An Essay in the Economics of Imperfect Information*, 90 Q.J. ECON. 629, 630-32 (1976).

¹⁶⁶ See Viral Acharya et al., *Competition for Managers, Corporate Governance and Incentive Compensation 1-2* (Feb. 1, 2011) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1786703 [<http://perma.cc/MBV8-89BC>].

¹⁶⁷ See Alex Edmans et al., *The Real Effects of Financial Markets: The Impact of Prices on Takeovers*, 67 J. FIN. 933, 934 (2012) (empirically confirming the existence of a "trigger effect" relating to future takeover activity, with lower-valued firms more likely to attract acquisition bids, and vice versa).

¹⁶⁸ A similar problem arises if a chute's payments are subject to limitations. If firms that need talented managers cannot increase the level of insurance (the chute's payments), they will be less likely to attract talented managers. From this perspective, it is unsurprising that firms with lower performance offer significant chute payments. The amounts reflect a rational market determination of the level of insurance required to provide managers of those firms with the right incentives to optimally invest their human capital.

when takeover defenses decline—they reduce the risk to CEOs that their specific investments will later be expropriated.¹⁶⁹ The increase in chutes may not be as significant as the decline in antitakeover devices, because when firms compete for talent, market demand may make it more likely that boards will favor features, like chutes, that appeal to prospective CEOs, regardless of whether or not the firm has antitakeover devices.¹⁷⁰

Finally, we note that *Dual* appears to be stationary at around six percent over the entire 2009-2012 period. The observation period is limited, but appears to suggest that whether or not there are staggered boards or poison pills is unaffected by whether or not there is a controlling shareholder. Since chutes also show only limited change, it is unclear what (if any) relationship exists with *Dual*. Part of the reason for the limited change may be due to how long it takes to move from *Dual* to circumstances when there is no longer dual-class stock or a controlling shareholder. As noted before, part of the reason may also reflect the market demand for senior executives that favor employment terms, like chutes, regardless of the likelihood of takeover.

In the next Section, we look at the association between protective features and CEO compensation. As described earlier, we expect that managers who do not have the benefit of those features are more likely to be compensated upfront against the risk of future expropriation. To some extent, upfront compensation may act as a substitute for chutes, but it raises its own set of governance concerns that make it a less efficient alternative.

B. Chutes and CEO Compensation

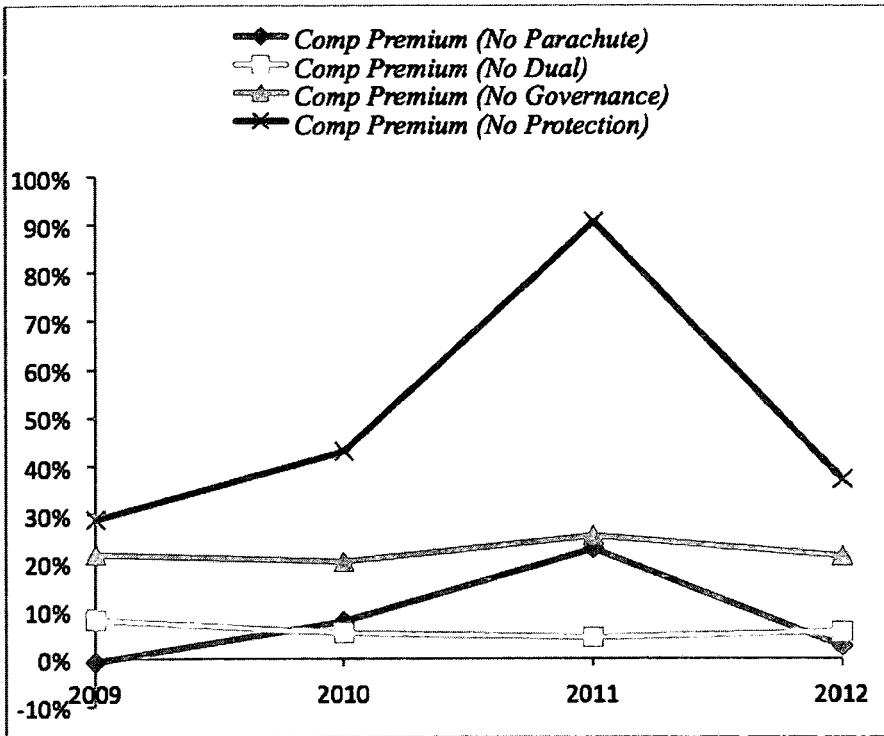
In order to verify whether protective features may affect CEO compensation, we relate average annual CEO compensation over 2009-2012 with average annual CEO compensation for firms without (i) chutes, (ii) dual-class stock, (iii) a staggered board or a poison pill, or (iv) any of those features. We then calculate the incremental premium paid to CEOs in each case.¹⁷¹

¹⁶⁹ See *supra* notes 118-19 and accompanying text.

¹⁷⁰ See *infra* notes 174-77, 187-87 and accompanying text.

¹⁷¹ We compute the compensation premium as follows: The *difference between* (i) Average Compensation (if Feature X is not present), and (ii) Average Compensation, *divided by* Average Compensation, where Feature X is *Parachute, Dual, Governance*, or all of these protective features.

Figure 2: CEO Compensation Premiums



As Figure 2 shows, during 2009-2012, the compensation premium paid to CEOs of firms without a chute (*No Parachute*) ranged between -1% and 23%. Those firms saw an increase in their compensation premiums until 2011, followed by a drop in 2012. It is unclear why the drop took place in 2012. We note, however, that Say-on-Pay first became operative during the 2011 proxy season, and the drop in compensation premiums may have partly resulted from that new requirement.¹⁷²

Compensation premiums for firms without dual-class stock (*No Dual*) or a staggered board or poison pill (*No Governance*) remained fairly constant. For *No Dual* firms, the compensation premium was around 8% in 2009 and around 5.5% in 2012. For *No Governance* firms, the compensation premium was around 21-22% in both 2009 and 2012.

Most remarkably, consider what occurred when a firm had no protective features at all (*No Protection*). Managers in those firms faced the greatest risk

¹⁷² See *Say On Pay Makes Its Debut in the 2011 Season*, COOLEY LLP (July 28, 2011), <https://www.cooley.com/say-on-pay-makes-its-debut-in-the-2011-proxy-season> [<https://perma.cc/92MM-L28Y>]; *supra* note 66 and accompanying text (discussing the regulatory background).

that their specific investments would later be expropriated due to a change in the firm's investment policies. For those firms, unsurprisingly, CEO compensation premiums ranged from 29% to above 90%—reaching their apex in 2011, when the average CEO compensation in a *No Protection* firm was almost twice the average compensation of CEOs in our sample. The compensation premium dropped to approximately 37.5% in 2012. Like before, we suspect the drop is partly attributable to implementation of Say-on-Pay voting during the 2011 proxy season.¹⁷³

Recall that, when firms compete for talent, market demand may begin to set the terms on which managers are hired, making it more likely that boards will favor features, like chutes, that appeal to CEOs.¹⁷⁴ Firms without those features—especially underperforming firms, which face an increased risk of a change in control—are more likely to end up with less-talented managers unless they can compensate for the risk of expropriation.¹⁷⁵ Our analysis shows that CEO compensation is higher in the absence of chutes or other protective features, consistent with what we would expect in a competitive market.¹⁷⁶ The absence of each protective feature results in an increase in executive pay and so, in that respect, we may find some degree of substitution across each feature. Each helps to minimize the amount of upfront executive compensation a firm must otherwise pay. Chutes, however, have an added value—they encourage a CEO to specifically invest in the firm without fear of later expropriation. Compensation premiums, by contrast, might not be able to serve that end. Chutes, therefore, appear to be a valuable and more efficient governance feature that assist in promoting specific investments, especially in innovation.¹⁷⁷ We empirically verify this theoretical prediction in the next

¹⁷³ See *supra* note 172 and accompanying text.

¹⁷⁴ See *supra* notes 164-69 and accompanying text.

¹⁷⁵ See *supra* notes 164-69 and accompanying text.

¹⁷⁶ By design, compensation premiums in our analysis capture total compensation, including salary and contingent compensation. Accordingly, in light of the greater weight given today to contingent incentives, such as restricted stock and stock options, much of the increase in compensation may reflect an increase in contingent compensation.

¹⁷⁷ See Williamson, *supra* note 103, at 1217 n.60 (noting that the risk of expropriation can be addressed through higher salaries or chutes “[i]f the efficiency properties of the latter are superior, as they arguably are”). Chutes may be less costly in assuring a CEO that she will receive the value of her specific investment. As the Wisconsin Supreme Court noted in *Koenings v. Joseph Schlitz Brewing Co.*, 377 N.W.2d 593, 604 n.12 (Wis. 1985), when upholding a chute that was negotiated during a friendly merger:

It is conceivable that [the target] could have purchased corporate loyalty by increasing the salaries of key employees, thereby increasing the employees' opportunity costs for leaving [the target]. However, [the target] may have felt that the least expensive method to purchase such loyalty was through the stipulated damages mechanism. The former method would require perhaps significant salary increases to seventy employees; the latter would require payment of the stipulated amount only upon a breach of a given contract.

Section, measuring the impact of chutes on firm value and, in particular, with respect to firms more engaged in innovation.

C. *Golden Parachutes, Innovation, and Firm Value*

Column 1 in Table 1 below tests the stand-alone and interacted impact of *Parachute* on *Firm Value* (measured using Tobin's Q). Column 2 computes the interacted effect of *R&D*—a standard proxy for innovation¹⁷⁸—and *Parachute* on *Firm Value*.

All our regressions in Table 1 include controls for year and firm fixed effects. On the one hand, using year fixed effects is important because *Parachute* levels tend to be highly correlated from year to year, and firm value in any given year may be affected by variables other than *Parachute*.¹⁷⁹ On the other hand, using firm fixed effects allows us to perform a time-series analysis, which helps mitigate endogeneity concerns.¹⁸⁰ Governance features, such as adopting a chute, may be endogenous responses to the circumstances in which a firm finds itself.¹⁸¹ In light of this possibility, the risk exists that (i) changes in firm performance correlate with adoption of a chute, but may be caused by another firm characteristic (a “specification problem”),¹⁸² or (ii) changes in firm performance may determine whether a firm adopts a chute, rather than the other way around (a “simultaneity problem”).¹⁸³ Including firm fixed effects helps reduce both of those concerns, since it enables us to compare average firm value before and after a change in *Parachute*.¹⁸⁴ Further, we exclude from our sample firms that have outstanding shares of dual-class stock, since the

¹⁷⁸ See Mansfield, *supra* note 158, at 127 (outlining the author's empirical findings regarding R&D, innovation, and technological change).

¹⁷⁹ In any given year there could be omitted variables that co-determine the association between the independent variable (*Parachute*) and the dependent variable (*Firm Value*). Controlling for year fixed effects is standard in panel data empirical analysis. See, e.g., Cremers et al., *supra* note 163, at 16-17, 46 tbl.3 (including year fixed effects and explaining their importance).

¹⁸⁰ Endogeneity, in this context, refers to the possibility that changes in dependent variables correlate with the presence of a *Parachute* but may not be caused by the presence of a *Parachute*, or that the changes may be the cause of why a board grants a *Parachute* rather than the opposite. If either is true, the regression model we employ and the estimates we obtain may not be reliable. See WILLIAM H. GREENE, *ECONOMETRIC ANALYSIS* 228, 259 (7th ed. 2012).

¹⁸¹ See Adams et al., *supra* note 106, at 59.

¹⁸² See Ian Ayres & John J. Donohue III, *Shooting Down the “More Guns, Less Crime” Hypothesis*, 55 STAN. L. REV. 1193, 1255-56 (2003).

¹⁸³ See *id.*

¹⁸⁴ See JEFFREY M. WOOLDRIDGE, *ECONOMETRIC ANALYSIS OF CROSS SECTION AND PANEL DATA* 668 (2005) (“The time series dimension . . . allows us to control for unobserved heterogeneity in the cross section units, and to estimate certain dynamic relationships.”).

protection that managers enjoy when a controlling shareholder is present could bias our results on the effect of *Parachute*.¹⁸⁵

Table 1 estimates the standalone impact of *Parachute* (Column 1) and the interacted effect of *Parachute* and *R&D* (Column 2) on *Firm Value* (measured by Tobin's Q) for the period 2009-2011. In each regression, the following additional control variables are included but not shown: *Assets*, *Leverage* (measured using book value), and *Capital Expenditure* (as a percentage of firm assets). Year and firm fixed effects are included. Robust standard errors are clustered at the firm level. T-statistics (using their absolute values) are shown in parentheses below the coefficient estimates. The statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by ***, **, and *, respectively.¹⁸⁶

**Table 1: Firm Value and Golden Parachutes:
Interaction of Golden Parachutes with Innovation**

VARIABLES:	(1) <i>Firm Value</i>	(2) <i>Firm Value</i>
<i>Parachute</i>	0.0200 (0.57)	0.01981 (0.61)
<i>R&D</i>	0.1273*** (24.14)	-0.1697*** (-4.52)
<i>Parachute</i> × <i>R&D</i>		0.2995*** (7.95)
Year FE	Yes	Yes
Firm FE	Yes	Yes
Observations	3771	3771
R-squared Adj.	0.869	0.870

¹⁸⁵ See *supra* note 138 and accompanying text.

¹⁸⁶ This means that the null hypothesis (the hypothesis that an independent variable has no impact on a dependent variable) cannot be rejected with a probability of 1%, 5%, and 10%, respectively. In statistics, when the significance level is above 10%, it is standard to consider the result to be statistically insignificant or uninformative.

As shown by Table 1, Column 1, the impact of *Parachute* on *Firm Value* is positive, although statistically insignificant. This result is most likely attributable to the poor time variation of *Parachute* in our sample.¹⁸⁷ Although statistical insignificance does not allow us to draw a conclusion on the efficiency of *Parachute*, the positive association of *Parachute* and *Firm Value* still suggests that adopting a chute is unlikely to have caused a drop in firm value during our sample period. In fact, our analysis confirms that adopting a chute seems to add value to firms more engaged in innovation, consistent with our theoretical analysis. Indeed, as shown by Column 2 of Table 1, the regression of *Firm Value* against *Parachute* interacted with *R&D* is positive and statistically significant. Economically, we find that when a firm that is more engaged in innovation (as proxied by an increase in *R&D* by one standard deviation) adopts a *Parachute*, the positive impact of *Parachute* on *Firm Value* is around 13% higher (that is, $0.2995 - 0.1697$). Although we cannot conclude that chutes are always beneficial, this result suggests that chutes are valuable in more innovative firms.

Although our results suggest that chutes enhance firm performance in firms with more specific investment, less clear is whether a chute's terms are optimal. Some portion of the chute may be the result of competition to hire the best CEO. Candidates may be able to use that competition to their own advantage to enhance compensation by threatening to accept a competitor's offer. As a result, a chute's terms may provide a manager with "excessive rent," increasing a chute's amount while not increasing the manager's incentives to undertake more specific investments. Whether or not that is the case is a question left open for future empirical research.

¹⁸⁷ In a previous version of this Article, we also included 2007 and 2008 Risk Metrics data in our analysis since we were unaware of the potential problems with this data. See *supra* notes 152-53 and accompanying text. That analysis delivered stronger results on the efficiency of *Parachute*. More specifically, in regressions including the same controls as in Table 1, we found that: (i) in the cross-section, firms that adopted a chute were on average associated with a reduction in *Firm Value* of around 11.1%; (ii) in the time series, this result was reversed with *Parachute* having a positive and statistically significant effect on *Firm Value* of around 5.8%. Subject to the accuracy of the 2007 and 2008 data, this inconsistency in the cross-section and time-series results induced us to think that the cross-section results could have been biased by a simultaneity problem. Specifically, this problem would arise if having low firm value caused some firms to adopt a chute, perhaps due to the greater likelihood of takeover or in order to attract talented CEOs (both facts consistent with our theoretical hypothesis). The end result would be that firms with chutes would tend to have lower firm values—even though chutes were not the cause. This problem is mitigated in the time-series analysis, since this analysis tests the impact of *Parachute* on *Firm Value* over time within the same firms.

* * *

The upshot of this Part is that chutes encourage specific investment by managers, particularly in support of innovation, that enhance firm value. Specifically, our analyses suggest that:

- i. In recent years a decline in staggered boards and poison pills occurred, while chute levels remained persistently high. This is consistent with our theoretical proposition that those features act as partial substitutes in providing managers with the protection required to incentivize specific investments;¹⁸⁸
- ii. Chutes, dual-class stock (controlling shareholders), staggered boards, and poison pills are associated with lower executive compensation, confirming that chutes, antitakeover devices, and pay-for-performance incentives are to some extent interchangeable in promoting specific investment;¹⁸⁹ and
- iii. Chutes appear to be efficient in firms with more investments in innovation, since the adoption of a chute by these firms is associated with higher firm value.¹⁹⁰

III. RETHINKING CHUTES

In Part I we showed theoretically how chutes encourage specific investment by assuring managers they will benefit from the long-term value of their work, even if there is a later change in control.¹⁹¹ This central proposition is consistent with the empirical results presented in Part II. Nevertheless, an analysis of chutes as a value-enhancing governance device has been largely missing from the corporate law scholarship. The principal focus, instead, has been on the risk that chutes may constitute excessive compensation—pay *without* performance—and their potential effect on takeovers when a change in control is imminent.¹⁹² Both approaches miss the mark.

The first underestimates the risk of expropriation that managers face when deciding to explore new, firm-specific investment opportunities, as well as the distortions in managerial incentives that then result.¹⁹³ Chutes can better address that risk than pay-for-performance, which helps explain the value to firm performance of seemingly outrageously large chute payments. The second portrays chutes, dual-class stock, staggered boards, and poison pills as entrenchment devices that provide incremental protection against takeovers,

¹⁸⁸ See *supra* Section II.A.

¹⁸⁹ See *supra* Section II.B, notes 134, 143-44 and accompanying text.

¹⁹⁰ See *supra* Section II.C.

¹⁹¹ See *supra* notes 118-19, 188-90 and accompanying text.

¹⁹² See *supra* notes 5-17 and accompanying text.

¹⁹³ See *supra* notes 114-17 and accompanying text (explaining that a manager is less likely to explore new, uncontested investments if they do not think they will be rewarded or recognized for the success of the long-term investments).

but without taking into account their role in encouraging specific investment and reducing the expected costs of chutes.¹⁹⁴ Each mechanism limits a manager's future risk of expropriation, but chutes provide a more direct means of doing so.

Most courts distinguish between chutes and takeover protections.¹⁹⁵ Rather than the heightened standard of review to which takeover protections are subject, a board's decision to grant a chute typically benefits from the business judgment rule,¹⁹⁶ unless the chute is enacted for defensive purposes.¹⁹⁷ In general, how a court assesses a chute depends on whether its adoption was

¹⁹⁴ See *supra* notes 121-22, 144-48 and accompanying text.

¹⁹⁵ See RADIN, *supra* note 10, at 3508 nn.7539-40, 3311-12 (noting that some courts have determined that chutes do not constitute defensive measures).

¹⁹⁶ See, e.g., *Nomad Acquisition Corp. v. Damon Corp.*, Civ. Act. Nos. 10173, 10189 (consolidated), 1988 Del. Ch. LEXIS 133, at *16-17 (Del. Ch. Sept. 20, 1988) (holding that chutes approved by a committee of independent directors are “*prima facie* subject to the protections of the business judgment rule”); *Tate & Lyle PLC v. Staley Cont’l, Inc.*, Civ. Act. No. 9813, 1988 Del. Ch. LEXIS 61, at *6, *20 (Del. Ch. May 9, 1988) (refusing to grant a preliminary injunction enjoining chutes whose provisions were “particularly troublesome,” stating “[e]ven when a compensation decision directly benefits directors, if the decision is approved by a committee of disinterested directors, it is afforded the protection of the business judgment rule”); cf. *Cox Enters., Inc. v. News-Journal Corp.*, Case No. 6:04-cv-698-Orl-28KRS, 2008 U.S. Dist. LEXIS 101401, at *32-41 (M.D. Fla. Dec. 5, 2008) (finding the granting of chutes to be corporate waste, since “there was no reasonable relationship between the services rendered [by the beneficiaries] . . . and the benefits received” by the target). Recall that chutes may also be triggered by a change in board composition. See *supra* note 68 and accompanying text. A chute, however, may be impermissible if its terms are so burdensome as to coerce shareholders to vote for a particular slate of directors. See *Cal. Pub. Emps.’ Ret. Sys. v. Coulter*, Civ. Act. No. 19191, 2002 Del. Ch. LEXIS 144, at *55 (Del. Ch. Dec. 18, 2002).

¹⁹⁷ See, e.g., *Nault v. XTRA Corp.*, Civ. Act. No. 91-11151-Z, 1992 U.S. Dist. LEXIS 10512, at *9 (D. Mass. Jul. 9, 1992) (denying a motion for summary judgment on claims seeking to enforce a chute since, in light of other defensive measures adopted by the former board, one could infer that the chute was an entrenchment device); *Buckhorn, Inc. v. Ropak Corp.*, 656 F. Supp. 209, 232-34 (S.D. Ohio 1987), *aff’d mem.*, 815 F.2d 76 (6th Cir. 1987) (distinguishing between employment benefits awarded before or after a tender offer was announced, and finding under the circumstances that the chutes satisfied the *Unocal* standard); *Hills Stores Co. v. Bozic*, Civ. Act. No. 14527, Civ. A. No. 14460, Civ. Act. No. 14787, 1997 Del. Ch. LEXIS 47, at *10 n.4 (Del. Ch. Mar. 25, 1997) (stating that “[w]hen a board provides severance benefits for a defensive purpose, its action is subject to enhanced scrutiny” under *Unocal*); *Tate & Lyle*, 1988 Del. Ch. LEXIS 61, at *20 (using the *Unocal* standard, upholding chutes adopted “in a good faith response to possible future hostile tender offer advances”). Note that a small number of states provide that, following commencement of a tender offer, the target firm may not “enter into or amend, directly or indirectly, agreements containing provisions, whether or not dependent on the occurrence of any event or contingency, that increase, directly or indirectly, the current or future compensation of any officer or director.” ARIZ. REV. STAT. ANN. § 10-2705 (2013); see also MINN. STAT. § 302A.255(3) (2014) (using the exact same language).

reasonable under the circumstances, with no single factor being dispositive.¹⁹⁸ In judging reasonableness, however, courts have considered the amount to be paid,¹⁹⁹ and consistent with this Article's analysis of chutes as insurance against job loss,²⁰⁰ whether the chute is triggered upon a change in control (a single-trigger) or, more favorably, also upon the manager's termination or constructive discharge (a double-trigger).²⁰¹ In addition, several courts have noted a preference for chutes adopted before a takeover arises²⁰²—an approach, again, consistent with this Article's focus on chutes as a credible means to encourage specific investment regardless of whether a change in control occurs.²⁰³

Nevertheless, the general failure to consider chutes outside the takeover context, coupled with rhetoric about excessive chute payments, has had important consequences. Two, in particular, are worth noting. The first is the negative view of proxy advisors on the adoption of chutes. The other is the federal enactment of Say-on-Golden-Parachute rules that subject chutes in public companies to a non-binding shareholder vote,²⁰⁴ but provide for ineffective disclosure requirements. We address each point in this Part, assessing them in light of the positive effect of chutes on firm performance, and recommending changes, consistent with this Article's analysis, that properly reflect the value of chutes in corporate governance.²⁰⁵

A. Proxy Advisor Recommendations

Institutional Shareholder Services (“ISS”) is considered to be the most influential proxy advisor in the United States.²⁰⁶ Institutional investors regularly look to ISS and other proxy advisors for direction on how to vote their shares, and in some cases, automatically vote them in line with ISS recommendations.²⁰⁷ To assist in advising institutions on investment and

¹⁹⁸ See RADIN, *supra* note 10, at 3514.

¹⁹⁹ See, e.g., *Int'l Ins. Co. v. Johns*, 874 F.2d 1447, 1467-68 (11th Cir. 1989); *Buckhorn*, 656 F. Supp. at 232-35; *Gaillard v. Natomas Co.*, 208 Cal. App. 3d 1250, 1272 (Cal. Ct. App. 1989); *Kramer v. W. Pac. Indus., Inc.*, Civ. Act. No. 8675, 1986 Del. Ch. LEXIS 483, at *5-6 (Del. Ch. Nov. 7, 1986).

²⁰⁰ See *supra* notes 118-19 and accompanying text.

²⁰¹ See RADIN, *supra* note 10, at 3513 n.7552.

²⁰² See *id.* at 3514 n.7555.

²⁰³ See *infra* Section III.B.

²⁰⁴ See *Cremers et al.*, *supra* note 45, at 40-41 (discussing why subjecting the adoption of golden parachutes to shareholder approval might be desirable).

²⁰⁵ See *infra* Sections III.A, III.B.

²⁰⁶ See Sanjai Bhagat et al., *The Promise and Perils of Corporate Governance Indices*, 108 COLUM. L. REV. 1803, 1807 (2008) (describing ISS as the “dominant market leader”).

²⁰⁷ See Paul Rose, *The Corporate Governance Industry*, 32 J. CORP. L. 887, 889-90 (2007) (“[ISS] may control a third or more of the shareholder votes.”); see also Charles M. Natham & Parul Mehta, *The Parallel Universes of Institutional Investing and Institutional*

voting decisions,²⁰⁸ ISS has developed corporate governance ratings that reflect their view of best practices.²⁰⁹ A recommendation by ISS is estimated to be able to shift a vote's outcome by 6% to 19%,²¹⁰ with a negative recommendation in an uncontested director's election being correlated with a 20.3% drop in favorable votes.²¹¹

ISS also provides guidance on the non-binding shareholder votes on chutes required by the new Say-on-Golden-Parachute rules, discussed below.²¹² Features that may result in ISS recommending a vote²¹³ against a chute include:²¹⁴

Voting 2-3 (Apr. 2, 2010) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1583507 [<http://perma.cc/U8QV-TZS7>] (“[P]roxy advisory firms . . . have developed methodologies to recommend voting positions for all public companies on all ballot matters, as well as systems for electronic voting that are used to cast votes on behalf of participating institutions . . .”).

²⁰⁸ See Rose, *supra* note 207, at 898-99 (“The for-profit corporate governance industry sells corporate governance advice through a number of products, including corporate governance ratings and proxy advice.”).

²⁰⁹ See Bhagat et al., *supra* note 206, at 1807-08.

²¹⁰ See Jie Cai et al., *Electing Directors*, 64 J. FIN. 2389, 2404 (2009) (finding that “a negative ISS recommendation is associated with 19% fewer votes” for a director); Stephen Choi et al., *The Power of Proxy Advisors: Myth or Reality?*, 59 EMORY L.J. 869, 906 (2010) (finding the impact of an ISS recommendation ranges from 6%-13%).

²¹¹ Choi et al., *supra* note 210, at 886-87.

²¹² See *infra* Section III.B.

²¹³ Although ISS remains influential, it is less clear how influential it is on Say-on-Golden-Parachute votes, partly because the new rule has only been in effect since April 25, 2011, a little over four years. *E.g.*, Vincent A. Vietti, *SEC Adopts Final Rules Governing Say-On-Pay, Say-On-Frequency, and Golden Parachute Compensation Advisory Votes*, FOX ROTHSCHILD LLP (Feb. 2011), <http://www.foxrothschild.com/publications/sec-adopts-final-rules-governing-say-on-pay-say-on-frequency-and-golden-parachute-compensation-advisory-votes/> [<http://perma.cc/Z8MV-NW94>]. During 2013, there were “a total of 141 votes on executive compensation packages linked to takeovers, and 86% passed.” Vipal Monga, *Approval on Golden Parachutes Rose in 2013*, WALL STREET J. (Dec. 30, 2013, 3:18 PM), <http://blogs.wsj.com/cfo/2013/12/30/approval-on-golden-parachutes-rose-in-2013/> [<http://perma.cc/TR43-WLB5>]. That ratio was greater than the 82% (based on 113 votes) that passed in 2012. *Id.* The uptick in approvals was contrary to the greater number of ISS negative voting recommendations, which increased (from 20% to 28% of proposals) over roughly the same period. See MARGARET BLACK & DAN WETZEL, PEARL MYER & PARTNERS, UPDATED: SAY ON GOLDEN PARACHUTE VOTES 3 (2013) [hereinafter PEARL MYER], <http://www.pearlmyer.com/Pearl/media/PearlMeyer/ArticlesWhitepapers/PMP-ART-SOGPUupdate-12-17-2013.pdf> [<http://perma.cc/G9T3-HD5G>]. Notwithstanding 2013, over the two-year period following adoption of the Say-on-Golden-Parachute rules, a study found that each of the twenty-seven companies that increased the benefits to be awarded under its chutes, but with ISS support, received shareholder approval. See SULLIVAN & CROMWELL LLP, *supra* note 85, at 1-2. “On the other hand, five of the 12 companies that enhanced [their chutes] and received a negative ISS recommendation, failed their vote.” See *id.* at 1-2 (based on a review of 365 transactions). Also, in line with ISS’s recommendations, five proposals to prohibit single-trigger chutes received a majority of votes for the first time

- i. Single-trigger or modified single-trigger cash severance;
- ii. Single-trigger acceleration of unvested equity awards;
- iii. Excessive cash severance (>3x base salary and bonus);
- iv. Excise tax gross-ups triggered and payable;²¹⁵ and
- v. Excessive chute payments (on an absolute basis or as a percentage of transaction equity value).²¹⁶

ISS's recommendations against the adoption of single-trigger chutes are consistent with this Article's analysis. Recall that a single-trigger obligates the target to make a payment only upon a change in control, even if the beneficiary remains employed.²¹⁷ A modified single-trigger obligates the firm to pay the beneficiary if she voluntarily terminates employment during a specified period following a change in control (typically, the thirteenth month).²¹⁸ To the extent a chute is designed to insure managers against expropriation of the value of their specific investment,²¹⁹ we would expect its payments to be made, not

during the 2014 proxy season. See SULLIVAN & CROMWELL LLP, 2014 PROXY SEASON REVIEW 17-18 (2014), http://www.sullcrom.com/siteFiles/Publications/SC_Publication_2014_Proxy_Season_Review.pdf [<http://perma.cc/7ML2-AXVN>] (comparing this to zero in 2013 and 2012). Shareholder support averaged 31% for compensation-related proposals that ISS recommended and only 5% for proposals that ISS opposed. See *id.*

²¹⁴ See generally Alert Letter, Frederic W. Cooke & Co., ISS Releases 2013 Draft Policy Changes for Comment 3 (Oct. 12, 2012), http://www.fwcook.com/alert_letters/10-19-12_ISS_Releases_2013_Draft_Policy_Changes_For_Comment.pdf [<http://perma.cc/4FC5-WZAM>] (describing proposed changes in the ISS policy for evaluating Say-on-Golden-Parachute proposals).

²¹⁵ Due to ISS's recommendation against tax gross-ups, the number of companies providing it is declining. See *supra* note 85 and accompanying text.

²¹⁶ INSTITUTIONAL S'HOLDER SERVS. INC., 2014 U.S. PROXY VOTING SUMMARY GUIDELINES 54 (2013), http://www.issgovernance.com/file/2014_Policies/ISSUSSummaryGuidelines2014March12.pdf [<http://perma.cc/3ZDF-B5ZM>] (listing these five disfavored features). Additional features that may negatively influence ISS's recommendation include "[r]ecent amendments that incorporate problematic features" or recent actions that may make chutes so attractive as to "influence the outcome of merger agreements that may not be in the shareholders' best interests"; or the target's assertion that a proposed takeover is conditioned on the shareholders approving the chute under the Say-on-Golden-Parachute advisory vote. See Frederic W. Cooke & Co., *supra* note 214 at 3, 5; see also PEARL MEYER, *supra* note 213, at 3. ISS's recommendations are made on a case-by-case basis. INSTITUTIONAL S'HOLDER SERVS. INC., *supra*, at 41. Accordingly, an acceptable chute generally should be consistent with the listed features, but they are not exclusive. See *id.*

²¹⁷ See *supra* note 70 and accompanying text.

²¹⁸ This arrangement is intended to ensure that executives stay with the acquired firm for a period of time after the transaction closes, following which they may depart or renegotiate new employment terms. See MERIDIAN COMP. PARTNERS LLC, CHANGE-IN-CONTROL ARRANGEMENTS 2 (2011), http://www.meridiancp.com/images/uploads/20_CIC_Severance_Arrangements.pdf [<http://perma.cc/5VVS-PL2>].

²¹⁹ See *supra* notes 118-19 and accompanying text.

simply upon a change in control, or an executive's decision to voluntarily resign, but rather upon the beneficiary's loss of a job—a double-trigger.²²⁰

ISS's recommendation that chutes adopt a double-trigger is also consistent with our analysis. In addition, it is consistent with the trend in chutes, with firms (largely due to shareholder pressure) increasingly adopting a double-trigger.²²¹ However, the limits that ISS recommends on amounts payable under a chute are troubling.²²² The 3x cap on cash severance is derived from the Internal Revenue Code, which imposes a twenty percent excise tax on "excessive" chute payments—payments that equal or exceed 3x the employee's base salary—and denies tax deductions to firms that award those payments.²²³ In line with ISS's recommendations, severance multiples have declined over time, from 3x to 2x, although a 3x severance payment is still common for CEO chutes.²²⁴ Beyond salary multiples, chute payments are also assessed by ISS based on the payout amount relative to the equity value of the transaction that triggered the payment.²²⁵ Of the thirty-five companies whose

²²⁰ See *supra* notes 71-72 and accompanying text; see also COUNCIL OF INSTITUTIONAL INV'RS, CORPORATE GOVERNANCE POLICIES ¶ 5.13c (2014), http://www.cii.org/files/ciicorporategovernancepolicies/07_08_14_corp_gov_policies.pdf [<http://perma.cc/VPM3-NLTQ>] (recommending that any obligation to pay compensation following a change in control should be double-triggered); INSTITUTIONAL S'HOLDER SERVS. INC., FREQUENTLY ASKED QUESTIONS ON U.S. COMPENSATION POLICIES 23 (2014), http://www.issgovernance.com/file/2014_Policies/ISSUSCompensationFAQs03282014.pdf [<http://perma.cc/2H9N-LZFD>] (stating that, "where ISS concludes that a *bona-fide* change in control event has not occurred (e.g., the company's equity remains outstanding and the board is not significantly affected)" it will recommend against approval of a chute payment (emphasis added)).

²²¹ See *supra* notes 70-72 and accompanying text; see also FREDERIC W. COOK & CO, EVOLUTION, *supra* note 70, at 2, 7-8 (finding a "significant shift away from single-trigger vesting to double-trigger vesting" for equity awards); PEARL MEYER, *supra* note 213, at 4 (showing that the most common rationale for ISS to recommend a vote against a chute is adoption of a single-trigger or modified single-trigger).

²²² See INSTITUTIONAL S'HOLDER SERVS. INC., *supra* note 216, at 41 (describing as excessive any cash severance more than 3x the base salary and bonus).

²²³ See *supra* notes 64-65 and accompanying text (describing the I.R.C. provisions).

²²⁴ See FREDERIC W. COOK & CO, EVOLUTION, *supra* note 70, at 2, 5 (stating that for CEOs, 61% of companies with cash severance have a 3x multiple, and for CFOs, the most common multiple was 2x, at 46% of companies with cash severance). Providing CEOs with excise tax gross-ups has also declined. See *id.* at 2, 9-10.

²²⁵ See INSTITUTIONAL S'HOLDER SERVS. INC., *supra* note 220, at 24. In a recent survey of deals during the two years after Say-on-Golden-Parachute was adopted, CEO chute payments triggered by the top ten deals by value (averaging \$13.8 billion per deal) were 0.29% of the target's equity value and, for all named executive officers ("NEOs"), 0.59%. See SULLIVAN & CROMWELL LLP, *supra* note 85, at 2. For the eleventh through twenty-fifth largest deals (averaging \$4.4 billion per deal), chute payments were 0.85% for CEOs and 1.71% for NEOs of the target's equity value, and for the thirty-nine deals that substantively

chutes ISS opposed in 2013, chute payouts to named executive officers²²⁶ were 1.87% of the target's equity value at the median—ranging between 0.04% and 64.26%.²²⁷

The concern with a cap on chutes is two-fold. First, focusing just on the amount the firm must pay when a chute is triggered fails to consider the cost to the firm at the time the chute was granted. The expected cost of a chute is a small fraction of what the firm actually pays, reflecting the likelihood that the firm will pay nothing, as well as the board's ability to terminate managers who underperform.²²⁸ Second, the chute's expected cost is offset by the value of the specific investments a manager is more likely to make as a result of having a chute. Any assessment of cost, therefore, should also account for the drop in firm value that would likely result from the chute's absence.

Codifying a 3x cap has created a standard of reasonableness on which boards and executives can rely in setting a chute's terms.²²⁹ To the extent the cap exceeds the value of a manager's specific investment, but has congressional (and now ISS) imprimatur, it may result in a windfall to the beneficiaries. If the cap falls short of actual value, it may fail to provide incentives to executives to invest in the company over the longer-term, causing a decline in firm performance. Stated differently, a one-size-fits-all approach to assessing a chute's payout is unlikely to set the right balance for all firms. It risks drawing attention away from what the board should be focused on—what amount is necessary to encourage value-enhancing, longer-term investment. It also redirects that focus to whether a chute meets the ISS guidelines—such as the chute's value at the time of a change in control—rather than to the expected cost and value to the firm at the time it was granted.

In fact, the full effect of a cap may be even more pernicious. To the extent that the cap is set by reference to annual pay, boards concerned over ISS approval may be inclined to increase pay first, in order to offset the decline in chute payments and, second, in order for any chute payments to stay within the 3x cap. In effect, imposing a cap on chutes encourages the board to pay

enhanced chute payments during the period (averaging \$1.9 billion per deal), chute payments were 1.56% for CEOs and 3.54% for NEOs. *See id.*

²²⁶ Say-on-Golden-Parachute requires that disclosure regarding chute payments be made for the following NEOs: all individuals serving as the firm's principal executive officer or acting in a similar capacity during the last completed fiscal year ("PEO"), regardless of compensation level; all individuals serving as the firm's principal financial officer or acting in a similar capacity during the last completed fiscal year ("PFO"), regardless of compensation level; the firm's three most highly-compensated executive officers, other than the PEO and PFO, who served as executive officers at the end of the last completed fiscal year; and up to two additional individuals for whom disclosure would have been provided but for the fact that she was not serving as an executive officer at the end of the last completed fiscal year. *See* 17 C.F.R. §§ 229.402 (a)(3), to (t) (2014); *see infra* Section III.B.

²²⁷ PEARL MEYER, *supra* note 213, at 6.

²²⁸ *See supra* notes 121-22, 129 and accompanying text.

²²⁹ *See Bress, supra* note 55, at 963 n.38.

excessive compensation up front, without increasing the CEO's incentive to specifically invest in the firm.²³⁰ The result is less efficient governance, potentially resulting in an overall decline in firm performance.

Part of the difficulty with chutes is that the board must assess the quality, and the likely value, of a CEO's specific investment before it has been made. Making that determination is difficult. Directors, however, are privy to confidential information about the firm and are better able than the shareholders to assess a CEO's actions and their value.²³¹ ISS, by contrast, faces the same informational problems as public shareholders and, consequently, is less able to evaluate measures such as chutes.²³² Nevertheless, partly due to public outcry,²³³ the new Say-on-Golden-Parachute rules require a firm to publicly disclose its chutes' terms and, in some cases, solicit a non-binding shareholders' vote. As we discuss in the next Section, those new disclosure rules reflect an ineffective approach to assessing chutes—with little regard to a chute's expected cost and the pre-takeover value a chute adds to firm performance—which is likely to be more harmful than beneficial.

B. *Say-on-Golden-Parachute Disclosures*

Section 951 of the Dodd-Frank Act²³⁴ requires U.S. public companies to conduct a non-binding shareholder advisory vote on chute payouts in connection with mergers and other significant corporate transactions that are presented to the shareholders for approval. In accordance with the Dodd-Frank Act, the SEC subsequently issued Item 402(t) of Regulation S-K,²³⁵ which requires disclosure of any agreement or understanding (written or unwritten) between the target or acquirer and the NEO of each concerning any type of compensation (current, deferred, or contingent) based on or otherwise relating to the transaction.²³⁶

²³⁰ In that respect, increasing a manager's pay in order for chutes to stay within the 3x cap is "wasted" compensation, because it is more than what is needed to preserve incentives. See TIROLE, *supra* note 9, at 306 (explaining how there is an optimal wage level that, if exceeded in order to compensate for the lack of a reward elsewhere, will result in "wasted" money on the part of the investor). Pay is increased, but without also increasing the managers' incentives to exert effort or undertake more specific investment.

²³¹ See *supra* note 105 and accompanying text.

²³² See *supra* notes 28-31 and accompanying text.

²³³ See *supra* notes 63-67 and accompanying text (discussing the historical background on the emergence of chutes).

²³⁴ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 1899 (2010) (codified as amended at 15 U.S.C. § 78n-1(b) (2012)) (amending the Securities Exchange Act of 1934 by adding new Section 14A).

²³⁵ 17 C.F.R. § 229.402(t) (2014).

²³⁶ 17 C.F.R. § 229.402(t). Additionally, the SEC adopted rules which require companies to provide a shareholder advisory vote on chute arrangements when seeking approval of a merger or similar significant corporate transaction, unless they were previously subject to a shareholder vote. 17 C.F.R. § 240.14a-21(c) (2014). Although the SEC requires disclosure

Item 402(t)'s disclosures must be in tabular and narrative form. The table must present quantitative disclosure of the elements of compensation that are based on or otherwise relate to the subject transaction, separately quantified based on specified categories, and the aggregate total compensation for each NEO.²³⁷ In addition, amounts attributable to single-trigger and double-trigger arrangements must be identified by footnote.²³⁸ The narrative must include a description of any material conditions or obligations applicable to the receipt of chute payments, including non-compete, non-solicitation, non-disparagement, or confidentiality agreements; their duration; and provisions regarding waiver or breach.²³⁹ Firms must also describe whether the payments are lump-sum or annual, the payments' duration, who will make the payments, and any other material factors regarding each agreement.²⁴⁰

Disclosure that focuses only on amounts to be paid when a chute is triggered is misleading in two important respects. First, it focuses on a chute's payout amount without providing information on its value or expected cost at the time of grant (which is likely to be a small fraction of the payout amount). As explained earlier, beyond its effect on takeovers, a chute may enhance a manager's specific investments in the firm and, in turn, improve the firm's longer-term performance.²⁴¹ Quantifying the value of specific investments, however, is difficult due to the severe asymmetric information problem affecting such investments—otherwise the manager would not need a chute in the first place. The problem with the Say-on-Golden-Parachute disclosure is

of chute arrangements between an acquirer and the target's NEOs, those arrangements are not required to be subject to a shareholder advisory vote unless the acquirer is the one seeking shareholder approval of the transaction. See 15 U.S.C. § 78n-1(b)(2) (2012); see also 17 C.F.R. § 240.14a-21(c).

²³⁷ See 17 C.F.R. §§ 229.402(t)(1), (t)(2). The table must use the following categories: cash severance; equity awards that are accelerated or cashed out; pension and nonqualified deferred compensation benefit enhancements; perquisites and other personal benefits and health and welfare benefits; tax reimbursement (such as tax gross-ups); and any additional items not covered in the other columns. See 17 C.F.R. § 229.402(t)(2).

²³⁸ See 17 C.F.R. § 229.402(t)(2), Instruction 5 (2014).

²³⁹ 17 C.F.R. § 229.402(t)(3).

²⁴⁰ *Id.* Note that the SEC amended the requirements for other filings to include comparable chute disclosure, including registration statements on Forms S-4 and F-4 (containing disclosure relating to mergers and similar transactions) and Schedule 13E-3 filings (for going-private transactions). See, e.g., *Frequently Asked Questions on Say on Golden Parachute Disclosure and Advisory Votes*, CORPORATE GOVERNANCE ALERT (Latham & Watkins LLP, L.A., Cal.), May 2011 at 1 (listing such filings); see generally *Shareholder Approval of Executive Compensation and Golden Parachute Compensation*, Securities Act Release No. 9178, Exchange Act Release No. 63,768, 76 Fed. Reg. 6010 (Feb. 2, 2011) (codified at 17 C.F.R. pts. 229, 240, 249) (final rule). In addition, firms must include in their annual meeting proxy statements detailed information about payments that they may make to NEOs upon termination of employment or in connection with a change in control in accordance with Item 402(j) of Regulation S-K. See 17 C.F.R. § 229.402(j).

²⁴¹ See *supra* Section II.C, notes 118-19 and accompanying text.

that it requires the firm to assign a dollar amount to what an NEO will be paid. Even if the board tried to balance that disclosure with an assessment of a chute's value, it would be hard-pressed to provide the same level of specificity as is required by Regulation S-K in identifying cost. The result is a skewed picture of chutes and their value to shareholders. As the courts have found,²⁴² and implicit in the Say-on-Golden-Parachute vote being advisory, setting a chute's terms is better left to the board's business judgment. But, in that case, a disclosure regime that permits (or directs) the board to balance the costs and benefits of a chute—rather than focusing on and mandating how firms calculate costs—may be the better approach.

For example, requiring the board to disclose information about the firm's investment policy and, in particular, its focus on innovation, could help make the benefits of a chute more intelligible to public shareholders and enable investors to assess the board's decision *ex post*—assessing the board's disclosure of soft information on specific investments against longer-term firm outcomes as specific investments mature. That disclosure could include information on the relationship between a firm's R&D plans and adoption of a chute, making the benefits of a chute in promoting specific investment more tangible. Publicly disclosing information about the relationship between the firm's investment policy and a manager's tenure could also enable shareholders to better evaluate a chute, less in relation to the payout amount in the event the chute is triggered and more in relation to its value as an ongoing governance tool. If a chute's primary function is promoting specific investment, as we argue in this Article, a manager's tenure may be critical in determining whether to grant a chute and on what terms.²⁴³

²⁴² See *supra* notes 195-97 and accompanying text (discussing the differences between how courts handle takeovers and chutes).

²⁴³ For example, if a manager decides to incur sunk costs at the beginning of her tenure, we might expect an optimal chute payout amount to be higher in the short-term (when the market is less able to fully reflect the manager's private information about her specific investments) and lower in the long-term (when the market is more likely to have incorporated that information). The intuition is that a chute's insurance function may be more prominent at the beginning of a manager's tenure, when investments in innovation require high sunk costs and information about their value is uncertain. Over time, as those investments mature, the quality of the manager's decisions will become public and, consequently, be more likely to be incorporated into share price. See MARKUS K. BRUNNERMEIER, ASSET PRICING UNDER ASYMMETRIC INFORMATION 9-10 (2001). Accordingly, if the manager does well, the likelihood that her specific investments would later be expropriated would decline, reducing the need for a chute (or for a chute whose payout is as large as before). This, of course, assumes that each manager's tenure lasts until completion of the relevant project. See Steven N. Kaplan & Bernadette A. Minton, *How Has CEO Turnover Changed?*, 12 INT'L REV. FIN. 57, 58 (2012) (documenting that, from 1992 to 2007, for a sample of large U.S. companies, the average CEO turnover was less than seven years). Alternatively, the board could decide that a chute's function, even in the long term, is to continue to encourage a manager's ongoing investment. From that perspective, a manager's past successes, even if reflected in current share price, would not provide

The disclosure may also consider the relationship between antitakeover devices and a chute's terms. Recall that chutes and antitakeover devices—such as staggered boards and poison pills, in addition to dual class stock—are partial substitutes in providing protection to managers against the risk of expropriation of their specific investments. As illustrated in our numerical example, one implication of the relationship is that the expected cost of a chute may decrease with the adoption of such devices.²⁴⁴ In addition, existing pay-for-performance incentives may affect a chute's terms. Chutes and pay-for-performance compensation are also partial substitutes. Depending on the firm's circumstances, different combinations of chutes and pay-for-performance may be optimal in encouraging specific investments, which the disclosure could clarify. Finally, the board could discuss factors beyond the company's control, such as an adverse change in stock market conditions, which could also be factors in adopting a chute due to the greater risk of a drop in share price and change in control.

Second, the Say-on-Golden-Parachute disclosure focuses on chutes as distinct from other forms of executive compensation. As explained earlier, in order to fully assess a chute, the board must consider its relative costs and benefits compared to the alternatives.²⁴⁵ Doing so is complex and not easily measurable. Attempting to do so through mandatory public disclosure may lead boards astray—substituting what “looks best” for what is more likely to enhance firm performance, particularly to the extent the disclosure influences how ISS and the shareholders assess the directors' actions.

Part of this problem may be addressed through the Compensation Discussion and Analysis (“CD&A”), a required part of a company's annual proxy statement.²⁴⁶ According to the SEC's rules, the CD&A is intended “to provide to investors material information that is necessary to an understanding of the [company's] compensation policies and decisions,”²⁴⁷ focusing on “the most important factors relevant to analysis of those policies and decisions.”²⁴⁸ The CD&A is the principal means for the company to explain to shareholders how senior managers' compensation is determined.²⁴⁹ Among other items,

sufficient protection against expropriation of her future investments—whose details both the board and managers may not want to reveal publicly for competitive or other practical reasons. Managers would continue to be interested in having a large chute, since the market still would not fully incorporate the value of their prospective investments in share price.

²⁴⁴ See *supra* note 134 and accompanying text.

²⁴⁵ See *supra* notes 121-22 and accompanying text (explaining how many tend to overlook a chute's benefits and instead only notice the cost of a chute when it is triggered).

²⁴⁶ See Schedule 14A, 17 C.F.R. § 240.14a-101, Item 8 (2014) (setting forth the requirements for the Compensation of Directors and Executive Officers (CD&A) portion).

²⁴⁷ 17 C.F.R. § 229.402(b), Instruction 1 (2014).

²⁴⁸ 17 C.F.R. § 229.402(b), Instruction 3 (2014).

²⁴⁹ See, e.g., CFA INST., COMPENSATION DISCUSSION AND ANALYSIS TEMPLATE, at v (2d. ed. 2015), <http://www.cfapubs.org/doi/pdf/10.2469/ccb.v2015.n4.1> [<http://perma.cc/QQ2P-SN49>].

firms are encouraged to describe the business context within which executive pay was determined, how corporate and individual performance were taken into account, and the basis for allocating compensation across the various types of awards.²⁵⁰ Consequently, through the CD&A, a firm can explain how it balances a chute's terms against other compensation, such as a compensation premium. It should come as no surprise then that, in setting pay, directors consider the total mix of pay elements, including, for example, the relationship between salary and equity compensation.²⁵¹

What the existing CD&A does not address is the relationship between pay-for-performance, chutes, and antitakeover devices.²⁵² As noted before, it is difficult to analyze the effect of a chute on firm performance with the same precision as calculating its total payout.²⁵³ It may also do the board little good to try doing so in the face of an ISS standard that assesses chutes relative to the beneficiary's annual pay and the target's equity value.²⁵⁴ The result, again, is disclosure that is skewed against chutes—providing a detailed analysis of their costs, but without providing a complete picture of their benefits.

* * *

A solution to the current approach to chutes must address problems arising from ISS's guidelines for chutes and the SEC's disclosure requirements. Each is related to the other—ISS makes its determinations based on its view of corporate best practices, which influences how shareholders (and the board) are likely to assess compensation,²⁵⁵ and the SEC's disclosure requirements are focused more on the costs of a chute's payout than on its positive effect on firm performance.²⁵⁶ In order to address both, we recommend the following three changes:

i. Institutional shareholders should consider a chute's expected cost at the time of grant, rather than just its payout amount, and most importantly, the positive effect of chutes on firm value. They should urge ISS (and other proxy advisors) to take those effects into account when assessing a chute's terms.

²⁵⁰ See 17 C.F.R. § 229.402(b).

²⁵¹ See ISS CORP. SERVS., STOCKING UP: POST-CRISIS TRENDS IN U.S. EXECUTIVE PAY 2–6 (2012), http://www.isscorporateservices.com/sites/default/files/images/ISS_WhitePaper_Stocking_Up.pdf [<http://perma.cc/7YGC-56EK>] (considering the interaction among various pay elements).

²⁵² We describe that relationship *supra* in Section II.B.

²⁵³ See *supra* note 241 and accompanying text (explaining how, comparatively, the benefits of a manager's specific investments cannot be as easily measured as calculating the dollar value of a chute's payout).

²⁵⁴ See *supra* notes 223–27, 241 and accompanying text.

²⁵⁵ See *supra* notes 206–11 and accompanying text (explaining how ISS influences shareholders' opinions on manager compensation).

²⁵⁶ See *supra* note 241–42 and accompanying text (explaining how disclosure requirements focus only on the cost of a chute without regard to the chute's benefits).

Using an artificial cut-off—like 3x salary—makes little sense, particularly in light of the incentive it creates to increase salary in lieu of a chute's payout.²⁵⁷ Investors should have a significant interest in changing the ISS analysis, consistent with this Article's recommendations, since a more complete review of chutes is likely to have a positive effect on firm performance.

ii. The current disclosure requirements for chutes and other executive compensation should be supplemented to permit the board to provide an analysis of the effect of antitakeover devices and other factors on a chute's terms. It will be difficult for a board to precisely define the relationship among them, and directors may be concerned with liability for statements that are later challenged. In order to address that concern, a safe harbor should be adopted for that portion of a firm's disclosure. Doing so is not without precedent. The new safe harbor would be similar to the current safe harbor for forward-looking statements—which, among other things, limits liability to the extent the statement is “identified as a forward-looking statement, and is accompanied by meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statement.”²⁵⁸ A similar safe harbor around a firm's discussion of non-compensatory factors that affect chute (and other compensation) arrangements would serve a similar purpose—namely, to encourage important disclosure without fear of later liability in light of its uncertain nature.

iii. More generally, a new approach needs to be adopted regarding how we assess chutes and their value, including the indices that are commonly used as measures of good corporate governance.²⁵⁹ The board should be expected to justify a chute's terms and to do so, less in relation to payout in the event the chute is triggered, and more in relation to its value as an ongoing governance tool especially with respect to the firm's investment policies. Part of the need for change may arise from the traditional view of chutes as simply antitakeover devices, without taking account of their positive effect on managers' specific investments.²⁶⁰ Part of it may be due to the traditional focus—which continues to be embodied in the ISS analysis and SEC rules—on chute payouts and the effect of chutes at or about the time of a change in control.²⁶¹ And part of it

²⁵⁷ See *supra* note 230 and accompanying text (explaining how firms waste money when they compensate for the lack of a chute by increasing a manager's salary).

²⁵⁸ See Securities Act of 1933 § 27A(c)(1)(A)(i), 15 U.S.C. § 77z-2(c)(1)(A)(i) (2012); see also SEC Rule 175 (Liability for Certain Statements by Issuers), 17 C.F.R. § 230.175 (2014) (explaining that forward-looking statements that meet the rule's requirements shall be deemed not to be, among others, “an untrue statement of a material fact, a statement false or misleading with respect to any material fact, an omission to state a material fact necessary to make a statement not misleading”).

²⁵⁹ See *supra* note 144 and accompanying text (arguing that the current indices only reflect factors that are temporally related to a chute's trigger while leaving out other relevant indices).

²⁶⁰ See *supra* notes 137-44 and accompanying text.

²⁶¹ See *supra* notes 5-18 and accompanying text.

may reflect market demand for strong CEOs, which has recently driven up the number of firms that have adopted chutes.²⁶² Combining the three factors suggests that the standard framing around chutes, if it was ever complete, now fails to fully reflect their impact on corporate governance and firm performance.

CONCLUSION

Chutes, unintentionally, are like a good card trick. The often-large payouts draw the audience's attention to when a chute is triggered, when the real "magic"—the chute's support of specific investment, particularly in innovation, and increase in firm performance—has already occurred, perhaps years earlier. As a result, most corporate law scholarship has been misplaced. Chutes provide comfort that standard pay-for-performance cannot, assuring managers will realize the long-term value of their work even if the firm is acquired, and as a result, providing incentives to managers to specifically invest in the firm. That investment is essential to creating and sustaining firm value over time.²⁶³ From that perspective, chutes, controlling shareholders, staggered boards, and poison pills are partial substitutes—promoting specific investment rather than simply insulating a firm's directors and managers from shareholder control.²⁶⁴ To that extent, the approach taken to date in assessing chutes—by corporate law scholars, as well as by ISS and the SEC disclosure rules²⁶⁵—must be reconsidered. It may also indicate the need to begin to reassess the portion of the GIM-Index and the E-Index that relates to chutes.²⁶⁶

Less clear is whether this has always been the case. At the end of the day, the importance of chutes to firm performance may simply reflect a trend away from their traditional role as an antitakeover device. But we think not. Specific investment in innovation has long been important to firm performance. We would expect a responsible board to continue to look to find ways to encourage that investment. Chutes have become a targeted means for firms to protect managers and encourage specific investment. The question remains, however, the extent to which chutes enhance firm value, and, due to variability in their terms, which features of chutes are most important in encouraging specific investment and innovation. We leave that question open for future research.

²⁶² See *supra* Figure 1 and accompanying text (explaining how firms create chutes, among other reasons, to attract the most talented managers).

²⁶³ See *supra* Section II.C, notes 87-89 and accompanying text.

²⁶⁴ See *supra* note 143 and accompanying text.

²⁶⁵ See *supra* notes 255-61 and accompanying text.

²⁶⁶ See *supra* note 144 and accompanying text.