
Article

Board and Shareholder Power, Revisited

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INTRODUCTION

Perhaps no other debate in corporate law has been as persistent as the debate on the optimal allocation of power between boards and shareholders. Since the days of Berle and Means,¹ the opposing sides have disputed whether exclusive board authority or enhanced shareholder rights are better suited to balance the tradeoff between efficient centralized management and the risk of sub-optimal managerial effort.² In the jargon of economists, this risk is known as managerial moral hazard.³ For defenders of the traditional board-centric model, the board's informational advantage and shareholders' collective action problems provide the key economic arguments for privileging board power.⁴ Conversely, shareholder advocates claim that shareholders, as residual claimants, are better placed than directors to effectively control managerial moral hazard, since directors may be "captured" by opportunistic managers.⁵

1. See ADOLF A. BERLE & GARDINER C. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* 6, 84–89 (rev. ed. 1967).

2. See Stephen M. Bainbridge & M. Todd Henderson, *Boards-R-Us: Reconceptualizing Corporate Boards*, 66 *STAN. L. REV.* 1051, 1053 (2014) (describing the existing balance between boards and shareholders).

3. See JEAN-JACQUES LAFFONT & DAVID MARTIMORT, *THE THEORY OF INCENTIVES: THE PRINCIPAL-AGENT MODEL 3* (2001) (defining moral hazard as the agent taking "an action unobserved by the principal").

4. See *infra* notes 46–52 and accompanying text.

5. See *infra* notes 53–66 and accompanying text.

The debate also shows no signs of waning. On the contrary, in today's corporate environment, the debate has intensified due to recent developments—such as the rise of hedge fund activism—which have shifted the balance of corporate power from boards to shareholders.⁶ Board advocates view this change as harming U.S. corporations. They describe hedge funds as impatient investors whose only aim is boosting a target's short-term stock price, regardless of whether it comes at the expense of long-term value creation.⁷ In stark contrast, shareholder advocates dismiss the risk of short-termism as marginal relative to the benefits brought about by the ability of hedge funds to use governance levers effectively to keep directors and managers accountable.⁸

Proponents of both models, however, agree at least on one thing. Managerial moral hazard is recognized across-the-board as *the* information problem of corporate governance.⁹ Disagreement is limited merely to whether board power or shareholder power best mitigates this problem.

This Article offers a novel theory of the optimal division of power between boards and shareholders, arguing that shareholders face problems of *adverse selection* in addition to classic problems of managerial moral hazard. Moral hazard arises when a manager takes “hidden actions” that deviate from optimal project selection.¹⁰ Adverse selection, instead, arises when a manager's “hidden knowledge” of her skills or the transactional environment makes shareholders unable to separate “good” managers, who respond to incentives for optimal project selection, from “bad” ones.¹¹ The coexistence of these information problems points to a much broader governance tradeoff

6. See *infra* Part I.B.

7. See *infra* notes 92–94 and accompanying text.

8. See *infra* notes 95–103 and accompanying text.

9. See, e.g., Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 248–49 (1999) (arguing that the dominant view in contemporary discussions of corporate governance is that the “central economic problem addressed by corporation law is reducing ‘agency costs’ by keeping directors and managers faithful to shareholders’ interests”); see also Edward B. Rock, *Adapting to the New Shareholder-Centric Reality*, 161 U. PA. L. REV. 1907, 1911 (2013) (describing the shareholder-manager agency costs as the master problem of corporate law); Roberta Romano, *Metapolitics and Corporate Law Reform*, 36 STAN. L. REV. 923, 929 (1984) (describing the challenge of aligning managerial incentives with shareholder desires as the central corporate law issue).

10. See LAFFONT & MARTIMORT, *supra* note 3.

11. See *id.*

than conventionally understood: attempting to mitigate adverse selection issues might conflict with trying to control managerial moral hazard, introducing distortions in the incentives provided to good managers for optimal project selection.

Examined against this broader governance tradeoff, neither the traditional board-centric model nor the shareholder primacy model can optimize on its terms and thereby maximize shareholder and aggregate wealth. As this Article will show, a competing governance model with stronger board authority in the short term and enhanced shareholder rights in the longer term instead emerges as the best means of achieving that end.

The key to understanding the economic mechanisms underpinning the moral hazard-adverse selection tradeoff is the power to remove managers. By default, this power belongs to the board, as the institution charged with supervising management.¹² However, if shareholders are displeased with the way directors serve their monitoring function, they retain the right to remove both incumbent directors and managers.¹³ Now, under the conventional information account of the shareholder-manager relationship, the utility of the shareholders' power of removal is that it has an expected cost to incumbents that incentivizes them to exert effort and refrain from moral hazard.¹⁴

Shareholder advocates, in particular, defend the need for a strong shareholders' power of removal—exercisable virtually at any time—in order to ensure that the exercise of this power (or even just the threat of it) can serve an effective disciplinary function.¹⁵ However, once the problem of adverse selection is taken into consideration, this account of the shareholders' removal power is revealed as incomplete.

First, the shareholder advocates' approach stands against standard economic assumptions about the use of incentive compensation as a helpful means to promote managerial effort.¹⁶ It also runs opposite to the widespread adoption of incen-

12. See, e.g., Bainbridge & Henderson, *supra* note 2, at 1060–62 (describing functions and powers of the board of directors).

13. See *Blasius Indus. v. Atlas Corp.*, 564 A.2d 651, 659 (Del. Ch. 1988) (affirming the shareholders' right to remove directors if displeased with their actions); see also MODEL BUS. CORP. ACT § 8.03(c) (AM. BAR ASS'N 1994) (providing a summary of comparable state corporation code provisions).

14. See *infra* note 51.

15. See *infra* notes 67–68 and accompanying text.

16. The standard reference is to Michael C. Jensen & Kevin J. Murphy, *CEO Incentives—It's Not How Much You Pay, But How*, HARV. BUS. REV., May–June 1990, at 138, 143–46.

tive compensation schemes we observe in the real corporate world.¹⁷

Second, that approach fails to incorporate the additional information problem of adverse selection, as well as the limits of incentive compensation or any other incentive-compatible mechanism for mitigating adverse selection.¹⁸ Indeed, the use of reward mechanisms can induce a manager to exert effort, but cannot improve a manager's skills. For example, they cannot induce an untalented manager to act as a talented one. And, in any event, using such mechanisms to induce a bad manager to "behave"—think of a manager with an excessive taste for private benefits, for example—will typically prove too costly to shareholders.¹⁹ Further, in other contexts, contracting with bad types will generally remain profitable to principals as long as they can set ad-hoc contractual terms. For example, consider the insurance practice of demanding higher insurance premiums from high-risk prospective customers. Conversely, contracting with a bad manager tends to always be unprofitable to shareholders, as no viable mechanism can compensate shareholders for the losses triggered by a bad manager's hire.

Viewed through this lens, the shareholder power of removal matters to shareholders primarily as an *ex post*²⁰ remedy against the risk of hiring a bad manager. But the real issue is that, *at the same time*, removal may impair the shareholders' ability to effectively use incentive compensation to promote effort by good managers.

This may occur because the shareholder advocates' assumption that a firm's stock price can provide guidance for accurate removal decisions weakens to the extent a manager invests in specific long-term projects where there is a lag between the time the investment is made and when its value is realized.²¹ Classic examples of these projects include investments in innovation and other intangible "knowledge" assets, such as ideas, patents, brands, software, copyrights, and the like. The

17. See, e.g., Rock, *supra* note 9, at 1917–19 (discussing the broad adoption of performance-based pay for CEOs).

18. Economists speak of incentive compatibility when a mechanism (e.g., a contractual or legal arrangement) exists that can make it individually profitable for the agent to take actions that maximize the principal's wealth. See BERNARD SALANIÉ, *THE ECONOMICS OF CONTRACTS* 122–24 (2d ed. 2005).

19. See *infra* Part II.C.2.

20. In this Article, the term "ex ante" refers to the period of time before the hiring of a manager, while "ex post" refers to after the hiring of a manager.

21. See *infra* note 71 and accompanying text.

common features of these investments—which have come to constitute the bulk of today’s corporate production²²—is that, on the one hand, information on their value tends to be “soft,” i.e., difficult for outsiders to verify and therefore less likely to be accurately reflected in stock prices.²³ On the other hand, these investments typically demand large capital expenditures up front and thus decrease near-term earnings, providing “hard” information that is easier to incorporate into the firm’s current stock price.²⁴ As a result of these transactional features, prices may fail to fully capture the implications of a specific long-term investment until those implications begin to show up in cash flows over time, while being largely uninformative in the short-term.

Under the possibility of uninformative short-term prices, theory predicts that shareholder interests are served by a regime of “time-consistent removal decisions.”²⁵ Under this regime, shareholders would commit to exercise removal only in the longer term, when market prices can be expected to more accurately reflect information on the fundamental value of managerial decisions. In practice, however, when shareholders are empowered to exercise removal at any time—as advocated by shareholder defenders—they will be unable to credibly commit to time-consistent removal decisions for two basic reasons. First, shareholders anticipate that bad managers are statistically more likely to be associated with a disappointing firm outcome (i.e., low earnings). Second, the short-term inability of good managers to support communication about the quality of a specific long-term investment with hard information increases

22. See, e.g., Carol A. Corrado & Charles R. Hulten, *How Do You Measure a “Technological Revolution”?*, 100 AM. ECON. REV. 99, 103 (2010) (“[T]he innovation that has shaped recent economic growth is not an autonomous event that falls like manna from heaven. Nor is it a result of R&D and ICT investments alone. Instead, a surge of new ideas (technological or otherwise) is linked to output growth through a complex process of investments in technological expertise, product design, market development, and organizational capability. This process affects all sources of growth to one extent or another but is most clearly detected in the growing contribution of intangible capital.”).

23. See JEAN TIROLE, *THE THEORY OF CORPORATE FINANCE* 249–50 (2006); see also Alex Edmans et al., *The Real Costs of Financial Efficiency When Some Information Is Soft 2* (Eur. Corp. Governance Inst., Finance Working Paper No. 380/2013, 2014), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2316194.

24. See TIROLE, *supra* note 23, at 249; see also Edmans et al., *supra* note 23 (noting the difficulty for a company to credibly disclose information about intangible assets).

25. See *infra* note 127 and accompanying text.

the risk that a bad manager might mimic a good manager. Consequently, shareholders will *rationally, but inefficiently*, respond to the short-term fall in stock price that may accompany a specific long-term investment by removing the manager.²⁶

The costs of this “limited commitment problem”²⁷ affecting shareholders are not limited to the expected loss of value caused by the mistaken removal of a good manager. Most importantly for the purpose of this discussion, good managers struggling to avoid removal can be expected to become likewise unresponsive to incentives for optimal project selection and engage in “strategic signaling.” This means that they may develop a preference for passing-up valuable long-term projects, which they would otherwise choose under the “right” incentive scheme, in favor of less profitable short-termist projects that are more likely to increase their chances at being perceived by the shareholders as a good manager.²⁸

This analytical framework has crucial positive implications for the debate over the optimal allocation of corporate power. First, it exposes short-termism as a much more pervasive problem than recognized by shareholder advocates. Short-termism is not just the result of the pressure of *some* shareholders with excessive discounting preferences (e.g., hedge funds).²⁹ It is, instead, the ultimate consequence of asset pricing inefficiencies due to adverse selection issues—that is, market imperfections that affect all shareholders as a matter of course.

Second, this framework reframes board protection from shareholder pressure as a corrective that “exploits” a board’s bias toward retaining incumbent management to address these imperfections. This bias stems from the same reasons that shareholder advocates argue promote board capture: the “bonds of interest, collegiality or affinity” that are likely to develop over time between managers and board members.³⁰ While economic theory and governance practices reject that these bonds might lead to the drastic consequences drawn by shareholder

26. See *infra* Part III.B.

27. See K.J. Martijn Cremers & Simone M. Sepe, *The Shareholder Value of Empowered Boards*, 68 STAN. L. REV. 67, 73–74, 114–15 (2016) (introducing the limited commitment problem of shareholders).

28. See *infra* note 149 and accompanying text (elaborating on the short-term incentive problem).

29. See *infra* text accompanying notes 92–98.

30. Lucian A. Bebchuk et al., *Managerial Power and Rent Extraction in the Design of Executive Compensation*, 69 U. CHI. L. REV. 751, 784 (2002).

advocates, it is plausible that they might induce a board to be more tolerant than outside investors in evaluating managerial performance. In light of this bias, a board that is insulated from shareholder discipline—and hence holds exclusive decision-making power on managerial removal decisions—reduces the risk of inefficient removal of good managers and, hence, short-termism.³¹

At the same time, what the defenders of a model with exclusive board authority fail to understand is that board protection might jeopardize optimal project selection if it becomes perpetual, as a board's bias might grow excessive in the longer term. Indeed, the same reasons that make a board less inclined to remove a manager in the short term may make the board less inclined to remove her in the longer term, even upon the observation of a disappointing firm outcome that is more likely to accurately signal a bad manager.³²

As a normative matter, this framework indicates that a corporate model with strong board authority in the short term and enhanced shareholder rights in the longer term is better suited to optimize the moral hazard-adverse selection tradeoff and, accordingly, maximize shareholder and firm value. Virtually exclusive board authority in the short term—such as the authority a board is likely to gain through the adoption of defensive measures like staggered boards and poison pills³³—harnesses a board's bias toward retaining incumbent management. This ensures that a board's bias serves as a commitment device against inefficient short-term removal decisions and the consequential risk of short-termism. In the longer term, however, a board's bias might grow excessive, while prices become more likely to provide reliable guidance for the efficient exercise of the shareholders' removal power.³⁴ Over time, a board's exclusive authority over managerial removal decisions should thus be relaxed in favor of greater shareholder authority, meaning that the shareholders' power of removal should not be constrained by the adoption of defensive measures or any other hurdles.

However, under the recent rise of empowered shareholders, boards of directors have grown increasingly less able to gain

31. See *infra* Part IV.B.

32. See *infra* Part IV.C.

33. See *infra* notes 56–58 and accompanying text.

34. See *infra* notes 56–58 and accompanying text.

protection from short-term shareholder pressure. Mainly, this outcome is due to the decreased effectiveness of defensive measures, as hedge funds and other activists have gained the ability to coerce boards to dismiss these defenses or otherwise sneak past them.³⁵ Consistent with this Article's theoretical prediction, recent evidence indicates that the result of these transformative changes is that corporate America is moving away from long-term value creation and toward short-term consumption.³⁶

To reverse this trend, and at the same time preserve the long-term benefits of shareholder empowerment, this Article submits that a coordinated private ordering response by U.S. boards of directors and institutional investors—who have increasingly voiced concerns about the short-termist effect of hedge fund activism in recent times³⁷—would be the most politically feasible option. Crucial to this response would be to reinstate the limitations on short-term shareholder interference as meaningful high-order constraints. Similar to the function served by supermajority requirements designed to protect constitutional constraints, a charter provision requiring supermajority approval for the dismissal of defensive measures could serve this purpose. At the same time, these limitations should have a finite, rather than perpetual, life. To this end, such measures should automatically expire as a company transitions from the short term to the long term. Further, this Article also explores modifications to the Delaware courts' approach to the use of defensive measures that would facilitate the adoption of this and other desirable changes to improve corporate governance in U.S. corporations.³⁸

This Article continues as follows. Part I frames the terms of debate in which this Article intervenes, reviewing the competing cases for board primacy and shareholder primacy and illustrating how recent changes in legal and market practices have advanced the case for stronger shareholder rights. Part II looks into the debate's economic stakes, pushing back against the claim that managerial moral hazard is *the* problem in the shareholder-manager relationship and showing that moral hazard coexists with the additional information problem of adverse selection. Part III discusses the positive implications aris-

35. See *infra* notes 88–94 and accompanying text.

36. See *infra* note 163 and accompanying text.

37. See *infra* notes 185, 209–13.

38. See *infra* Part V.B.

ing from these competing information problems, demonstrating that their coexistence exposes shareholders to a broader governance tradeoff than conventionally understood. Part IV explores the normative implications of the moral hazard-adverse selection tradeoff, concluding that a governance model with exclusive board authority in the short term and enhanced shareholder rights in the longer term emerges as better positioned to facilitate this tradeoff than either the traditional board-centric model or the shareholder primacy model. Part V discusses the policy implications that this Article's novel theory of board and shareholder power bears in light of the recent rise of empowered shareholders. Lastly, the Appendix provides a numerical example to add concreteness to this Article's claims.

I. WHITHER CORPORATE MODEL?

This Part lays out the basic terms of the debate on the optimal allocation of power between boards and shareholders. It begins, in Section A, by reviewing the contrasting economic arguments in favor of board primacy and shareholder primacy. Section B then illustrates how recent changes in legal and market practices have contributed to advancing the case for shareholder primacy.

A. BOARD PRIMACY AND SHAREHOLDER PRIMACY

According to the canonical view of corporate governance, the risk of managerial moral hazard explains why the corporate form presumes the adoption of a board structure alongside centralized management.³⁹ Day-to-day business decisions are dele-

39. This Article uses the term "board advocates" to identify a school of thought that defends the centrality of the board of directors as an institutional remedy to the managerial moral hazard problem. See, e.g., Stephen M. Bainbridge, *Director Primacy: The Means and Ends of Corporate Governance*, 97 NW. U. L. REV. 547, 550, 559–74 (2003); William W. Bratton & Michael L. Wachter, *The Case Against Shareholder Empowerment*, 158 U. PA. L. REV. 653, 658–61 (2010); Jack B. Jacobs, "Patient Capital": Can Delaware Corporate Law Help Revive It?, 68 WASH. & LEE L. REV. 1645, 1657–61 (2011); Martin Lipton, *Takeover Bids in the Target's Boardroom*, 35 BUS. LAW. 101, 130–31 (1979); Leo E. Strine, Jr., *Toward a True Corporate Republic: A Traditionalist Response to Bebchuk's Solution for Improving Corporate America*, 119 HARV. L. REV. 1759, 1777 (2006). Excluded from this group of scholars are two prominent voices defending board primacy—Margaret Blair and Lynn Stout. Blair and Stout challenge the principal-agent model of the firm and suggest that a "team-production model" capturing the role of other corporate stakeholders is descriptively more accurate. See Blair & Stout, *supra* note 9, at 249. Blair and Stout also challenge the view that corporate law's goal is to maximize share-

gated to managers, as “agents with valuable relevant knowledge”⁴⁰ that dispersed shareholders tend to lack. This separation of ownership and control efficiently allows shareholders to specialize in risk bearing,⁴¹ facilitating the aggregation of large capital pools.⁴² However, it also creates the risk that managers may opportunistically abuse their business decision-making power, taking “hidden actions” in their own self-interest and at the expense of shareholders. In response to this risk, corporate law grants ultimate control over the corporate affairs to the board of directors,⁴³ as the institution charged with ratifying and monitoring management decisions.⁴⁴ To this end, among others, board members have the power of selecting the CEO and top executives, setting executive compensation arrangements, deciding on the removal of management, and taking major corporate decisions.⁴⁵

For board advocates, collective action problems and asymmetric information provide the key economic arguments for privileging this allocation of corporate powers. Unlike shareholders—these advocates argue—the board of directors can act as an efficient central decision-maker *within* the corporation, avoiding issues of rational apathy and enjoying privileged access to corporate information.⁴⁶ The need to protect the board’s informational advantage from the interference of less-informed

holder value. *See id.* at 253. Conversely, this Article still embraces shareholder value maximization and the principal-agent model of the firm, but criticizes the standard corporate law approach to that model as incomplete insofar as it fails to consider the additional information problem of adverse selection.

40. Eugene F. Fama & Michael C. Jensen, *Separation of Ownership and Control*, 26 J.L. & ECON. 301, 308 (1983).

41. *See id.*

42. *See* Mark J. Roe, *A Political Theory of American Corporate Finance*, 91 COLUM. L. REV. 10, 10 (1991).

43. *See* DEL. CODE ANN. tit. 8, § 141(a) (2015); MODEL BUS. CORP. ACT § 8.01(b) (AM. BAR ASS’N 2010).

44. *See, e.g.*, OLIVER E. WILLIAMSON, *THE ECONOMIC INSTITUTIONS OF CAPITALISM: FIRMS, MARKETS, RELATIONAL CONTRACTING* 306 (1985) (“The board of directors thus arises endogenously, as a means by which to safeguard the investments of those who face a diffuse but significant risk of expropriation because the assets in question are numerous and ill-defined and cannot be protected in a well-focused, transaction-specific way.”); Benjamin E. Hermalin & Michael S. Weisbach, *Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature*, 9 FED. RES. BANK N.Y. ECON. POL’Y REV., Apr. 2003, at 7, 9.

45. *See* Bainbridge & Henderson, *supra* note 2, at 1060–62.

46. *See, e.g.*, Bainbridge, *supra* note 39, at 550; Bratton & Wachter, *supra* note 39, at 659–60.

shareholders also explains why the traditional corporate model vests shareholders with only a limited capacity to intervene in corporate affairs.⁴⁷ At the same time, according to board advocates, this model performs an efficient balancing act between board authority and accountability. It does so by granting shareholders the right to appoint directors (and vote on their tenure at periodic elections)⁴⁸ and the benefit of fiduciary duties.⁴⁹ Further, this model also grants shareholders the power to remove board members and their appointed officials, the managers—either through a proxy contest⁵⁰ or by selling their shares to an outside bidder in the context of a hostile takeover.⁵¹ The power of removal—or even just the threat of it—provides shareholders obvious utility, as its expected cost to incumbents incentivizes greater effort.⁵²

47. See, e.g., Leo E. Strine, Jr., *One Fundamental Corporate Governance Question We Face: Can Corporations Be Managed for the Long Term Unless Their Powerful Electorates Also Act and Think Long Term?*, 66 BUS. LAW. 1, 3–4 (2010). Aside from the exercise of veto rights over some fundamental corporate transactions, shareholders lack the right to direct the management of the corporation. See generally Edward Rock et al., *Fundamental Changes*, in THE ANATOMY OF CORPORATE LAW: A COMPARATIVE AND FUNCTIONAL APPROACH 183 (2d ed. 2009) [hereinafter THE ANATOMY OF CORPORATE LAW] (describing the traditional governance rights of shareholders).

48. See ROBERT CHARLES CLARK, CORPORATE LAW 357–400 (1986) (providing a general discussion of shareholders' voting rights).

49. While Delaware courts have sometimes articulated the requirement of fiduciary duty as being owed to the corporation, the operation of this requirement has consistently identified the interests of the shareholders as proxy for the interest of the corporation. See Ronald Chen & Jon Hanson, *The Illusion of Law: The Legitimizing Schemas of Modern Policy and Corporate Law*, 103 MICH. L. REV. 1, 52–58 (2004).

50. Ordinarily removal rights follow appointment rights. See Luca Enriques et al., *The Basic Governance Structure: The Interests of Shareholders as a Class*, in THE ANATOMY OF CORPORATE LAW, *supra* note 47, at 55, 60 (“Indeed, one might say that directors are normally ‘removed’ by dropping their names from the company’s slate or by failing to reelect them.”) But shareholders are also granted the extraordinary power to remove directors *before* the end of their terms. In particular, Delaware treats the shareholders’ power to remove directors without cause as a statutory default subject to reversal, unless a board is staggered (in which case removal needs to be for cause). See DEL. CODE ANN. tit. 8, § 141(k) (2001).

51. See John Armour et al., *Agency Problems and Legal Strategies*, in THE ANATOMY OF CORPORATE LAW, *supra* note 47, at 35, 41 (describing this kind of removal as a “right of transfer” belonging to the shareholders).

52. See *id.* (discussing the disciplinary function of the exercise of removal power through the sale of shares in the context of a takeover transaction); Lucian A. Bebchuk, *The Myth of the Shareholder Franchise*, 93 VA. L. REV. 675, 676–77, 680–82 (2007) (discussing the disciplinary function of the shareholder franchise).

In stark contrast, shareholder advocates argue that shareholders lack effective remedies to hold directors accountable, challenging the board's ability to serve as a faithful guardian of shareholder interests.⁵³ According to these scholars, fiduciary rules provide weak deterrence against moral hazard, as such rules are of uncertain application, are excessively costly to enforce, and are too vague.⁵⁴ Most importantly, they argue the shareholders' power of removal is "largely a myth" as a result of "managerial entrenchment" and "board capture."⁵⁵

Entrenchment arises when directors and managers gain protection from the threat of removal through the adoption of defensive measures that make it difficult for shareholders to replace incumbents.⁵⁶ Classic examples of such measures include poison pills and staggered boards. A poison pill, also called a shareholders' rights plan, is a defensive measure that so dilutes a bidder's economic rights that the only way to complete a takeover is to first appoint a new majority of directors who can remove it.⁵⁷ When a board is staggered, however, a bidder's ability to do so is substantially reduced.⁵⁸ This is because in a staggered board directors are commonly grouped into three different classes and each class stands for reelection in successive years. Hence, a prospective bidder needs to endure the costly delay of waiting through two election cycles before

53. Notably, the leading voice among shareholder advocates is Harvard Law School's Lucian Bebchuk. See, e.g., Lucian Arye Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833, 851-75 (2005) (advocating for the expansion of shareholder governance rights as a remedy against the ineffectiveness of board monitoring); Bebchuk, *supra* note 52, at 694-711 (advocating for a reform of corporate elections so as to make directors more accountable to shareholders).

54. See Simone M. Sepe, *Corporate Agency Problems and Dequity Contracts*, 36 J. CORP. L. 113, 141-42 (providing a summary of the standard arguments articulated against the effectiveness of fiduciary duties).

55. Bebchuk, *supra* note 52, at 732.

56. See, e.g., Lucian A. Bebchuk et al., *What Matters in Corporate Governance*, 22 REV. FIN. STUD. 783, 788 (2009).

57. A poison pill consists of stock purchase rights that are granted to existing shareholders in the event a corporate raider accumulates more than a certain threshold of outstanding stock, and which entitle the existing shareholders (but not the raider) to acquire newly issued stock at a substantial discount from the market price. See Wachtell, Lipton, Rosen & Katz, *The Share Purchase Rights Plans*, in RONALD J. GILSON & BERNARD S. BLACK, *THE LAW AND FINANCE OF CORPORATE ACQUISITIONS* 3, 4-12 (2d ed. Supp. 1998) (setting forth terms of a standard poison pill).

58. See Lucian A. Bebchuk et al., *The Powerful Antitakeover Force of Staggered Boards: Theory, Evidence, and Policy*, 54 STAN. L. REV. 887, 893, 907 (2002).

being able to replace a majority of the board. Further, entrenchment is also favored by incumbents' exclusive access to the corporation's proxy machinery, which shareholder advocates argue raises prohibitive procedural costs for prospective challengers.⁵⁹

Because entrenchment weakens the disciplining effect of removal, shareholder advocates claim it allows top executives to capture the board, making directors subservient to management or simply ineffective at fulfilling their monitoring function.⁶⁰ For these advocates, the clearest evidence of board capture would be the ability of executives to extract "pay-without-performance"⁶¹: high-powered compensation schemes that pay executives more than "the minimum expected monetary payoff to be left [to agents] to preserve incentives"⁶² (i.e., what economists call "information rents").⁶³ This approach stands in clear contrast with the conventional economic account of incentive compensation as the most effective way to reign in managerial moral hazard.⁶⁴ Indeed, shareholder advocates remain skeptical that incentive-compatible compensation arrangements⁶⁵ can be designed in practice. In their view, board capture negates an essential premise of incentive compatibility: that principals can take an adversarial position against agents.⁶⁶

In response to these inefficiencies, shareholder advocates demand to strengthen the governance powers of shareholders—in particular, the power of promptly removing directors and managers.⁶⁷ Only by ensuring that shareholders enjoy a power

59. See, e.g., Bebchuk, *supra* note 52, at 688–91.

60. See, e.g., Bebchuk et al., *supra* note 30, at 754, 783–86.

61. See LUCIAN BEBCHUK & JESSE FRIED, PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE COMPENSATION 8, 61–79, 80–82 (2004).

62. TIROLE, *supra* note 23, at 117.

63. See LAFFONT & MARTIMORT, *supra* note 3, at 29.

64. See Jensen & Murphy, *supra* note 16, at 8–10.

65. See SALANIÉ, *supra* note 18 (providing a definition of incentive compatibility).

66. See Bebchuk et al., *supra* note 30.

67. See Bebchuk, *supra* note 52, at 677. Among other proposals, shareholder advocates have called for the adoption of majority voting, the "right to replace all incumbents every two or three years," the right to expanded "access to the proxy statement" and the "reimbursement of solicitation expenses," the "access to management's proxy statements," and the "power to trump contrary board-adopted bylaws" and adopt "shareholder-initiated charter amendments." Bratton & Wachter, *supra* note 39, at 671–73 (providing a summary description of these proposals).

of removal unencumbered by the adoption of defensive measures (or hurdles affecting the proxy process)—they argue—can shareholders' control over the corporation have teeth and corporate governance be placed on new solid foundations.⁶⁸ Economically, this argument rests on Jensen and Meckling's classical principal-agent framing of corporate relationships.⁶⁹ That framing recasts shareholders as principals—residual claimants that have the best incentives to constrain managerial moral hazard and maximize firm value, unlike potentially captured boards.⁷⁰

Furthermore, shareholder advocates maintain that the efficiency of stock prices largely mitigates any alleged coordination and information problems that could prevent shareholders from exercising corporate control effectively. In contrast with what is argued by board advocates, stock prices could be relied upon to reliably convey information on the value implications of managerial and directorial decisions.⁷¹ Additionally, as discussed in the following Section, the emergence of a new class of sophisticated investors and recent regulatory developments would have further reduced the informational gaps between boards and shareholders and, therefore, enhanced the ability of shareholders to effectively provide value-increasing governance inputs.

B. THE RISE OF EMPOWERED SHAREHOLDERS

Shareholder advocates have been engaged in a battle to reform the traditional board-centric model of the corporation for over three decades, since the late 1970s. For most of this time, this battle has favored directors and managers. Since the early 2000s, however, the balance of corporate power has shifted rather dramatically as a result of several changes occurring in both regulation and market practices that have promoted shareholder empowerment.

68. See Bebchuk, *supra* note 52, at 732.

69. See Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305, 308–10 (1976).

70. *Id.*

71. See Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. FIN. 383, 383 (1970). The theoretical underpinning here is the semi-strong form of the Efficient Capital Market Hypothesis (ECMH), under which market prices accurately reflect all available public information on firm outcomes. See *id.*

Of all these changes, perhaps the most salient has been the rise of activist hedge funds.⁷² Unlike the dispersed investors stereotyped by Berle and Means or the largely defendant institutional investors of yesteryear,⁷³ activist hedge funds routinely rely on the proactive use of governance levers in order to pursue near or intermediate term investment objectives.⁷⁴ In doing so, they have drawn heavily on the moral hazard-reductive playbook of shareholder advocates, seeking increased leverage, pressing for the return of excess cash to shareholders, forcing the sale of non-core corporate assets, and engaging in cost-cutting initiatives.⁷⁵ On top of all this—again, consistent with the shareholder advocates’ demand for strengthening shareholders’ removal power—the funds have often sought the replacement of incumbent CEOs and other top executives.⁷⁶

Most frequently, hedge funds have pushed for these changes by launching proxy fights or threatening to do so,⁷⁷ typically seeking, and often gaining, the support of institutional investors.⁷⁸ The activists’ newly founded ability to use proxy fights

72. In the period 2010–15, one out of two S&P 500 companies had an activist fund on its share register and one out of seven received an activist attack. *Capitalism’s Unlikely Heroes*, ECONOMIST (Feb. 5, 2015), <http://www.economist.com/news/leaders/21642169-why-activist-investors-are-good-public-company-capitalisms-unlikely-heroes>. In 2014 alone, activists launched 344 campaigns against U.S. public companies (up from 291 in 2013). *Taking Care of Business: A Look at Shareholder Activism in 2014 and Beyond*, ACTIVIST INSIGHT ACTIVIST INVESTING REV., 2015, at 8.

73. See Brian R. Cheffins & John Armour, *The Past, Present, and Future of Shareholder Activism by Hedge Funds*, 37 J. CORP. L. 51, 56–58 (2011) (drawing a distinction between the “defensive” activism of institutional investors, directed at taking actions to protect existing investments, and the “offensive” activism of hedge funds, directed at seeking targets to fit their agenda for activism).

74. The high-powered compensation structure of hedge fund managers, the concentration of the funds’ investments in just a few targeted companies, greater regulatory freedom, and smaller exposure to liquidity shocks are the primary factors explaining why activism is a rational profit-making strategy for these corporate actors. See Marcel Kahan & Edward B. Rock, *Hedge Funds in Corporate Governance and Corporate Control*, 155 U. PA. L. REV. 1021, 1064–66, 1069–70 (2007).

75. E.g., Bratton & Wachter, *supra* note 39, at 683; Alon Brav et al., *Hedge Fund Activism, Corporate Governance, and Firm Performance*, 63 J. FIN. 1729, 1741–45 (2008) (describing the five major categories of hedge funds’ stated objectives).

76. See Brav et al., *supra* note 75, at 1743–45 (detailing the tendency and success rates of such hostile tactics).

77. See, e.g., William W. Bratton, *Hedge Funds and Governance Targets*, 95 GEO. L.J. 1375, 1403–05 (2007) (providing a sample of proxy contests).

78. Ronald J. Gilson & Jeffrey N. Gordon, *The Agency Costs of Agency*

effectively was made possible by the “modernization” process of proxy rules, which the Security and Exchange Commission (SEC) began in the 1990s.⁷⁹ This process has made it considerably easier and cheaper for insurgents to engage in a proxy contest. Activists have also significantly gained by the switch to majority voting, which has come to replace plurality voting at most public companies.⁸⁰ Under majority voting, only nominees who receive a majority of the votes cast are elected to the board. As a result, vote withholding (or “just say no”) campaigns have acquired direct legal significance today, since shareholders can effectively use these campaigns to throw incumbents out of office without having to file a proxy statement with the SEC.⁸¹

Besides hedge funds, proxy advisory firms are the other new corporate governance player that has largely contributed to the empowerment of shareholders. These firms today play a major role in influencing corporate governance policies at many U.S. corporations, as they provide most institutional investors with voting recommendations on any matter on which shareholders vote.⁸² In providing these services, proxy advisors strongly support the proposition that “enhanced shareholder

Capitalism: Activist Investors and the Revaluation of Governance Rights, 113 COLUM. L. REV. 863, 867 (2013).

79. See generally Thomas Briggs, *Corporate Governance and the New Hedge Fund Activism: An Empirical Analysis*, 32 J. CORP. L. 681, 686–94 (2007) (providing a comprehensive discussion of the changes in proxy rules that facilitated hedge fund activism).

80. Stephen Choi et al., *Does Majority Voting Improve Board Accountability?*, 83 U. CHI. L. REV. 1119, 1121 (2016) (“Over the last decade, the move from plurality to majority voting for corporate directors has been one of the most popular and successful corporate governance reform efforts.”).

81. Withhold (or “just say no”) campaigns involve the withholding of votes on specific governance issues, such as the election of directors. Before the adoption of majority voting, withhold campaigns could at best cause embarrassment to director nominees. Under majority voting, they have become potent weapons to defeat incumbent directors. See Marcel Kahan & Edward Rock, *Embattled CEOs*, 88 TEX. L. REV. 987, 1020–21 (2010) (discussing the passage from plurality to majority voting).

82. See generally K.J. Martijn Cremers et al., *Commitment and Entrenchment in Corporate Governance*, 110 NW. U. L. REV. 727, 746 (2016) (“Institutional Shareholder Services (ISS) alone, the largest proxy advisory firm, claims to advise over 1,600 clients, who manage over \$25 trillion in assets.” (citing Robert D. Hershey, *A Little Industry with a Lot of Sway on Proxy Votes*, N.Y. TIMES, June 18, 2006, at B6)); Paul Rose, *The Corporate Governance Industry*, 32 J. CORP. L. 887, 898–906 (2007) (discussing six of such advisory firms).

rights are consistent with best governance practices.”⁸³ At the same time, they oppose the adoption of defensive arrangements as inconsistent with such practices.

As a result of these developments⁸⁴—especially activists’ newly founded ability to remove incumbents at virtually any time—shareholders are today increasingly able to influence both governance practices and investment policies. Meanwhile, board power has been correspondingly eroded. The most telling evidence of this shift in the balance of corporate power is the changes that occurred in the use of defensive measures. While directors theoretically have a veto power over destaggering decisions,⁸⁵ in recent years they have increasingly acquiesced to destaggering proposals⁸⁶ under the pressure exerted by both proxy advisors⁸⁷ and activist shareholders.⁸⁸ The use of the poi-

83. Cremers et al., *supra* note 82, at 746–47.

84. Other significant changes that have contributed to empowering shareholders include: amendments to the Delaware General Corporation Law that have granted shareholders greater access to the ballot box, the introduction of say-on-pay shareholder votes, and a further expansion of the scope of shareholder proposals to effect changes in corporate election procedures. *Id.* at 799–800.

85. This is so as long as the staggered board is established in the charter, in which case destaggering involves the coordinated action of the board and the shareholders, as charter amendments can be initiated only by the board and require shareholder approval. *See, e.g.*, DEL. CODE ANN. tit. 8, § 242(b) (2017); MODEL BUS. CORP. ACT § 10.03 (AM. BAR ASS’N 2010). Conversely, shareholders can unilaterally dismiss a staggered board established in the bylaws, as board initiative is not required for bylaw amendments. *See, e.g.*, DEL. CODE ANN. tit. 8, § 109(a) (2017); MODEL BUS. CORP. ACT § 10.20(a)–(b) (AM. BAR ASS’N 2010). Most staggered boards, however, are established in the charter. Cremers & Sepe, *supra* note 27, at 94 n.140.

86. *See* Cremers & Sepe, *supra* note 27, at 98–99 (documenting that lower staggered board levels over time are largely due to increased destaggering rather than a fall in staggering events).

87. The recommendation that companies should have a unitary board, or else shareholders should seek a destaggering proposal, figures among the most important voting guidelines that proxy advisors routinely provide to investors. *See, e.g.*, INST. S’HOLDER SERVS., 2014 U.S. PROXY VOTING SUMMARY GUIDELINES 10 (2013), <https://www.issgovernance.com/file/files/2014ISSUSSummaryGuidelines.pdf>.

88. Activist shareholders have increasingly resorted to precatory proposals and the threat of vote-withholding campaigns to pursue board destaggering at several companies, and with growing success. The Harvard Shareholder Rights Project (SRP) alone, a clinical program established at Harvard Law School to assist institutional investors in the submission of precatory proposals to destagger the board, has “contributed to board [destaggering] at about 100 S&P 500 and Fortune 500 companies” in just three years. SHAREHOLDER RTS. PROJECT, <http://srp.law.harvard.edu> (last visited Feb. 27, 2017).

son pill has similarly declined—again, largely as a result of the war waged against it by proxy advisors and activist investors.⁸⁹ Further, poison pills also seem to have grown less effective in circumstances involving an activist attack. This has occurred in part because the support of institutional shareholders has enabled hedge funds to wage victorious proxy contests with stakes that remain below common pill-triggering thresholds, in part because the funds' bargaining levers have proved increasingly successful in coercing boards to remove the pill "willingly."⁹⁰

II. ADVERSE SELECTION IN THE SHAREHOLDER-MANAGER RELATIONSHIP

Unsurprisingly, the rise of empowered shareholders has reignited the debate about the optimal balance of corporate powers. For board advocates, this development makes the current case for shielding boards from shareholder and market pressure more compelling than ever. In contrast, shareholder advocates view activist shareholders—and, in particular, hedge funds—as the natural champions of the long-dormant shareholder franchise. Yet, despite these opposing views about the respective role of boards and shareholders, both board advocates and shareholder advocates share a common predisposition to regard managerial moral hazard as *the* problem to be addressed in corporate law.

Economic theory, however, has long shown that the most pervasive information problem is "adverse selection": as put by Nobel Laureate in economics George Akerlof, "the difficulty of distinguishing good quality from bad."⁹¹ In the corporate context, this difficulty translates into the inability of shareholders to separate "good" managers, whose incentives to act opportu-

89. Stephen M. Gill et al., *Structural Defenses to Shareholder Activism*, 47 REV. SEC. & COMMODITIES REG. 151, 170 n.162 (2014) ("Whereas 57% of the S&P 500 companies had poison pills at the end of 2003, only 7% had pills in place at the end of 2013." (citation omitted)).

90. The recent battle fought for the control of the board of Sotheby's is emblematic. After having adopted a pill in the attempt to defeat the attack of activist investor Third Point, the board decided to "willingly" remove it. Significantly, this decision took place after the board had obtained a favorable judgment by the Delaware Chancery Court that the use of a two-tier pill (i.e., a pill providing for different triggering thresholds for activist and non-activist investors) was not "preclusive." See *Third Point LLC v. Ruprecht, C.A.*, No. 9469-VCP, 2014 WL 1922029, at *2, *14, *19 (Del. Ch. May 2, 2014).

91. George A. Akerlof, *The Market for "Lemons": Qualitative Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488, 500 (1970).

istically and deviate from optimal project selection, can be redressed through reward mechanisms, from “bad” ones, who do not respond to such reward mechanisms.

The matter is not just about academic rigor, but rather involves two critical descriptive points, which bear crucial normative implications. This Part takes up the first point, showing that adverse selection issues matters as much as issues of moral hazard in the shareholder-manager relationship. The second point is addressed in Part III, where this Article shows that a more complex corporate governance tradeoff emerges once the information problems arising from the separation of ownership and control are considered in full. Corporate law’s fundamental optimization problem is not simply how to incentivize managerial effort despite shareholders being unable to observe the actions a manager takes. Rather it is how to do so when shareholders do not know whether they are dealing with a good or bad manager, and when attempts at getting rid of bad managers can introduce distortions on the moral hazard front.

A. REASSESSING THE OPTIMAL ALLOCATION OF POWER DEBATE

As highlighted in the Introduction, board advocates view the rise of empowered shareholders as harming U.S. corporations. Empowered shareholders, they argue, both jeopardize the board’s informational advantage and exacerbate issues of short-termism.⁹² In the standard rendering, short-termism results from the risk that “impatient” shareholders with near-term liquidity needs might pressure companies to undertake investments “that are profitable in the short term but value-decreasing in the long term.”⁹³ Classic examples include cutting specific investments that would pay off later on or undertaking projects that deliver cash on the nails at the expense of long-term profitability. Further, board advocates reject the claim of market price robustness, asserting that market prices provide at best an imperfect informational focal point for the exercise of shareholder governance.⁹⁴

92. *E.g.*, Lucian A. Bebchuk, *The Myth that Insulating Boards Serves Long-Term Value*, 113 COLUM. L. REV. 1637, 1639–40, 1651 (2013); *see also id.* at 1639 nn.2–6, 1640 nn.7–11 (collecting the most important contributions expressing short-termism concerns).

93. *Id.* at 1638.

94. *See, e.g.*, Bratton & Wachter, *supra* note 39, at 696 (“Information asymmetries make it difficult for the market to project accurately . . .”).

To these criticisms, shareholder advocates respond that, first, short-termist concerns have marginal relevance relative to the much more pervasive problem of managerial moral hazard.⁹⁵

Indeed, *some* shareholders—hedge funds, in the first place⁹⁶—may plausibly have liquidity needs that induce them to undertake lucrative short-term investments at the expense of long-term firm results.⁹⁷ But this kind of behavior cannot reasonably be presumed to constitute a systemic shareholder issue.⁹⁸ Conversely, managerial moral hazard is a problem affecting *all* shareholders.

Second, shareholder advocates argue that portraying today's shareholders as necessarily less informed than board members fails to take into account both investors' increased sophistication and the changes that have occurred in board composition. Activist investors such as hedge funds possess both the incentives and the resources to act as "governance entrepreneurs" that specialize in monitoring and providing governance and strategic inputs.⁹⁹ Along the same lines, institutional shareholders can rely on proxy advisory firms, which increasingly act as "central coordinating and information agents,"¹⁰⁰ to gather information regarding governance at particular firms. Accordingly, one could no longer assume that hedge funds and institutional investors necessarily stand at an informational disadvantage relative to independent directors, who have come to occupy the largest fraction of seats in most U.S. boards.¹⁰¹

95. See, e.g., Bebchuk, *supra* note 92, at 1651 (rejecting the view that depicts "the long-term costs of shareholder power and activism as large and the threats posed by them as grave"); Mark J. Roe, *Corporate Short-Termism: In the Boardroom and in the Courtroom*, 68 BUS. LAW. 977, 1004 (2012) (arguing that short-termism "is insufficiently strong, empirically and theoretically, to affect corporate rulemaking").

96. Kahan & Rock, *supra* note 74, at 1083 ("Hedge funds come close to being the archetypal short-term investor. For some funds, holding shares for a full day represents a 'long-term' investment.").

97. The empirical evidence on the long-term effect of hedge fund activism is mixed; most recent empirical studies seem to support the view that hedge fund activism is detrimental in the longer term. For a recent review, see Martijn Cremers et al., *Activist Hedge Funds and the Corporation*, 94 WASH. U. L. REV. 16–21 (forthcoming 2016) (on file with author).

98. See Roe, *supra* note 95, at 980, 1005.

99. See Gilson & Gordon, *supra* note 78, at 897.

100. See Kahan & Rock, *supra* note 81, at 1007.

101. See generally Jeffrey N. Gordon, *The Rise of Independent Directors in the United States, 1950–2005: Of Shareholder Value and Stock Market Prices*, 59 STAN. L. REV. 1465 (2007).

Unlike executive directors, independent directors typically have full-time jobs elsewhere and can therefore devote relatively little time to their board functions.¹⁰² Further, they also tend to have little firm-specific knowledge or skills, as the emphasis placed on independence requirements in current rules governing the board appointment process has sacrificed expertise requirements.¹⁰³

These arguments fairly project today's shareholders as well positioned to exercise corporate control. Under this projection, the case for preferring shareholder primacy to board primacy is considerably strengthened. If enhanced principal control can reduce the expected cost of managerial moral hazard and shareholders are now in the position to exercise principal control effectively, then one must conclude that enhancing shareholder power increases firm value. This argument is as straightforward as it could be. But therein lies the problem. For the shareholder advocates' argument rests on a crucial oversimplifying assumption about the information structure of the shareholder-manager relationship: that shareholders are immune to the additional, and fundamental, information problem of adverse selection.¹⁰⁴

As with moral hazard, conflicting objectives and asymmetric information are the basic ingredients of adverse selection. In the case of adverse selection, however, the agent's private information involves "hidden knowledge" about her characteristics or the execution of the delegated task. Collectively, in the jargon of economists, this is known as the agent's "type."¹⁰⁵ In particular, in the corporate context, a manager will tend to have exclusive information on both her ability to run a business and the actual conditions of that business. A manager's skills in running different investment projects, the amount of effort these projects require, their intrinsic quality, or the room such projects offer for private benefits extraction all provide illustrations of the hidden knowledge managers are likely to have on

102. See Bainbridge & Henderson, *supra* note 2, at 1061.

103. See *id.* at 1066.

104. The 2001 Nobel Prize in Economic Sciences was shared by three economists who did the most to call attention to the inefficiencies created by adverse selection—George Akerlof, Michael Spence, and Joseph Stiglitz. Press Release, The Royal Swedish Acad. of Scis, The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2001 (Oct. 10, 2001), http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/2001/press.html.

105. See Akerlof, *supra* note 91, at 491 (introducing the classic treatment of adverse selection in the product market, i.e., between buyers and sellers).

both her skills and a business condition. Because of this information asymmetry, “bad” managerial types might be able to mimic “good” types, to the detriment of shareholders.

While challenging the desirability of shareholder primacy, board advocates similarly ignore the adverse selection issues that arise in the shareholder-manager relationship. In fact, discussions of adverse selection in the existing corporate law scholarship have largely been constrained to investor protection in capital markets. Put simply, adverse selection has been described as an issue affecting the quality of publicly traded securities, with the difficulty lying in screening out low-quality issuers.¹⁰⁶ Virtually no attention,¹⁰⁷ instead, has been paid to the effects of adverse selection on managerial incentives—that is, to adverse selection issues arising *within* the boundaries of the firm. The ensuing discussion endeavors to fill this gap in the literature, showing that issues of adverse selection cannot be assumed away from the shareholder-manager relationship, as shareholders lack the means to separate good managers from bad ones.

B. HIDDEN ACTIONS AND HIDDEN KNOWLEDGE

In order to better understand why an analytical framework that only incorporates the problem of managerial moral hazard has limited explanatory reach, it is helpful to begin by briefly reviewing the differences between moral hazard and adverse selection issues as stylized in formal economic models.

In moral hazard models,¹⁰⁸ the principal cannot observe what action an agent ultimately will take, but is assumed to anticipate perfectly: (i) the agent’s type; (ii) the agent’s available actions (which are essentially determined by the agent’s type); (iii) the payoff associated with the agent’s actions (which also is a function of the type); (iv) the mapping between the agent’s effort and performance; and (v) the agent’s payoff func-

106. See, e.g., Armour et al., *supra* note 51, at 40.

107. Two substantial exceptions include Ian Ayres, *The Possibility of Inefficient Corporate Contracts*, 60 U. CIN. L. REV. 387 (1991) (providing a seminal treatment of adverse selection in the corporate context, although focusing on the creditor-firm relationship rather than the shareholder-manager relationship), and Eric Talley, *Turning Servile Opportunities to Gold: A Strategic Analysis of the Corporate Opportunities Doctrine*, 108 YALE L.J. 277 (1998) (employing an adverse selection model to examine the economics of the corporate opportunity doctrine).

108. See TIROLE, *supra* note 23, at 115.

tion and how it varies depending on available actions.¹⁰⁹ As applied to the corporate context, these assumptions imply that the shareholders will, for example, know whether a manager has sufficient industry expertise, what kind of projects she has available, what cash flows these projects are expected to deliver and how their distribution changes depending on the level of managerial effort, and, finally, how the manager's payoff function changes depending on the available projects and the amount of effort each project requires.

On the contrary, in adverse selection models, the principal lacks knowledge about the agent's specific characteristics or the execution of the delegated task. In this context, the principal only anticipates: (i) the general characteristics of agent types, such as the different skills exhibited by good and bad managers; (ii) the distribution of types, such as the percentage of good and bad managers in the market; and (iii) the payoffs associated with each type (which are assumed to be a function of the type), such as the cash flows that the hire of a good or bad manager is expected to deliver.¹¹⁰

Under these different information constraints, principals bear different information costs. In general terms, moral hazard costs arise because the principal faces the problem of inducing effort by the agent, despite being unable to condition the agent's payoff on the actions the agent takes. Under adverse selection, instead, the problem for the principal is to induce the agent to reveal her hidden knowledge, so that the principal can separate good and bad types and reward (or punish) them accordingly.

For ease of tractability, formal models of moral hazard and adverse selections tend to separately focus on each of these problems. In actuality, however, principals—including shareholders—can be presumed to simultaneously face *both* issues of moral hazard and adverse selection. A stylized illustration is helpful to better clarify this point as well as to add concreteness to the differences between moral hazard and adverse selection problems.¹¹¹ Consider a company—specifically, an information

109. See Bengt Holmström, *Moral Hazard and Observability*, 10 BELL J. ECON. 74, 75–76 (1979) (modeling the principal's monetary payoff as a function of both the agent's unobservable actions, i.e., effort, and a random state of nature, with the expected realization of the principal's monetary payoff increasing in the agent's effort level).

110. See Akerlof, *supra* note 91, at 489–99.

111. The illustration introduced in this Section provides the basic setting

technology manufacturer—which needs to hire a manager to run its business. As standard in principal-agent models, let us represent the shareholders as principals and the manager as agent.¹¹² While this representation simplifies the internal organization of the public corporation, it causes no loss of generality for the purpose of the present discussion. Consistent with standard assumptions in adverse selection models, let us also assume that the shareholders know that “Good Managers” represent 80% of the overall managerial population, while “Bad Managers” represent the remaining 20%. This assumption is also realistic in the context of a developed capital market, such as the U.S. market, where adverse selection can be presumed to be relatively mild.

Only three kinds of projects are available to the company—“Regular,” “Innovative,” and “Bad” projects—and the company’s business only lasts two periods—identified as the short term and the long term, at the end of which the company is liquidated.¹¹³ In reality, of course, a company will have many more available projects to choose from, which will also tend to develop along multiple periods (i.e., years). Nevertheless, these further assumptions cause, again, no loss of generality for the purpose of this discussion.

The Regular Project involves the production of an updated version of a computer that the company has now produced and marketed for some time. The Innovative Project, instead, involves the production of a new, advanced-technology computer and, as such, requires the exercise of greater managerial effort. For example, the Innovative Project might demand the manager to work longer hours, or require her to make some unpopular decisions, such as cutting corporate perks to fund the development of the more advanced technology, or firing several company engineers in order to hire a new, more talented team that has greater chances to succeed in developing the new technology.

for an example that is used throughout this Article’s discussion, and presented in an expanded version in the Appendix.

112. See TIROLE, *supra* note 23, at 115.

113. As a reference point to identify these periods with more concreteness, note that the average tenure of U.S. CEOs is around seven years. 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 about seven years).

Because choosing the Regular Project over the Innovative Project allows the manager to save the cost of exercising greater effort, the Regular Project can be described as delivering the manager a private benefit or, put differently, as providing a stylized representation of managerial moral hazard.¹¹⁴ From the shareholders' perspective, however, while being more uncertain, the Innovative Project is more desirable than the Regular Project. Indeed, while the development of a new computer is likely to involve higher up-front costs as well as greater potential difficulties and delays, if successful, it is also likely to give the company a significant advantage over competitors in the longer term. On the contrary, while being more likely to generate returns in the short term, a computer that the company has produced for some time can be expected to become outdated in the longer term.

Unlike the Regular Project, the Bad Project involves the pursuing of an obsolete technology that the manager has an interest in keeping in place because of some hidden knowledge, rather than because she can exert hidden actions that allow her to save the cost of effort. For example, the manager may lack the talent to undertake a better project, or she may have personally invested in the project and stubbornly think—either because of hubris,¹¹⁵ excessive optimism¹¹⁶ or specific risk preferences¹¹⁷—that the project has better prospects than it does in actuality or, still, that abandoning such a project might be interpreted as an admission of failure on her part.¹¹⁸ Additional

114. See TIROLE, *supra* note 23, at 115.

115. See Richard Roll, *The Hubris Hypothesis of Corporate Takeovers*, 59 J. BUS. 197, 197 (1986) (arguing that managerial "hubris" may result in overinvestment).

116. See generally Ulrike Malmendier & Geoffrey Tate, *CEO Overconfidence and Corporate Investment*, 60 J. FIN. 2661, 2661 (2005) (focusing on the distortions arising from managerial "overconfidence").

117. See, e.g., Melvin Aron Eisenberg, *The Legal Roles of Shareholders and Management in Modern Corporate Decisionmaking*, 57 CAL. L. REV. 1, 29 (1969) (discussing the risk-averse implications that may arise out of "the managerial tendency to identify with the enterprise and the desire for security"); Bengt Holmstrom & Joan Ricart i Costa, *Managerial Incentives and Capital Management*, 101 Q.J. ECON. 835, 836–38 (1986) (demonstrating formally that career concerns may induce a general reluctance on the part of managers to undertake new investment projects).

118. See Arnoud W.A. Boot, *Why Hang on to Losers? Divestitures and Takeovers*, 47 J. FIN. 1401, 1408–09 (1992) (showing that managers may be reluctant to either liquidate or divest poorly performing lines of business, for fear that such actions will be interpreted as an admission of failure on their part). For more concrete illustrations of bad projects falling along these lines,

illustrations of hidden managerial knowledge that may explain the undertaking of a Bad Project may involve the manager's ability to extract forms of private benefits that go beyond saving the cost of effort. For example, the Bad Project may involve a supplier with whom the manager has a preexisting personal relationship that would be jeopardized if the manager chose another project or may grant the manager exclusive opportunities for personal networking. Of course, from the shareholders' perspective the Bad Project is the least desirable as pursuing an obsolete technology may arguably be assumed to be less profitable than the restyling of a current computer or the production of an innovative one.

These stylized representations of the possible projects available to the manager more tangibly capture the difference between the problem of moral hazard and adverse selection. Indeed, a manager will be Bad—and hence pose an adverse selection problem—when her specific skills, preferences or the conditions of the business in which she operates constrain her to the choice of a Bad Project. On the contrary, a manager will be Good but rationally opportunistic—and hence pose a moral hazard problem—when her specific skills, preferences or the conditions of the business in which she operates¹¹⁹ exclude that she may undertake a Bad Project, but still leave open the possibility that she may choose the Regular Project over the Innovative Project. Further, the illustration also helps to better see the implications of the coexistence of moral hazard and adverse selection issues in the shareholder-manager relationship. Because information asymmetry makes shareholders unable to verify *both* the actions managers take *and* their types, they are exposed both to the risk of hiring a Good Manager who will un-

see Isabelle Royer, *Why Bad Projects Are So Hard To Kill*, HARV. BUS. REV. (Feb. 2003), <https://hbr.org/2003/02/why-bad-projects-are-so-hard-to-kill>.

119. For simplicity, as standard in adverse selection models, the example in the text assumes that the quality of the project available to a manager depends on her type. This assumption, however, is not strictly necessary to stylize adverse selection in the shareholder-manager relationship, as a manager may—and often will—acquire private information on the quality of available projects over the course of her employment. See Talley, *supra* note 107, at 281. Accordingly, there are two ways of interpreting the example's setting. One can either imagine, as noted in the text, that the described setting captures the adverse selection issues that arise when the manager is hired, posing that the manager's expertise gives her access to prospectively superior information about the business. Alternatively, one can imagine a situation in which the issue is the review of managerial compensation, in which case the manager will have more direct private information on the business conditions.

dertake the Regular Project rather than the Innovative Project and that of hiring a Bad Manager, who will undertake the Bad Project.

C. ON THE IMPOSSIBILITY OF ASSUMING AWAY ADVERSE SELECTION

The above discussion helps to better grasp the implications of assuming away adverse selection issues from the shareholder-manager relationship, as commonly done both by shareholder advocates and board advocates. Doing so is equivalent to assuming the existence of incentive-compatible mechanisms that make it profitable to a manager to disclose information about her type.

As hinted to above, in the case of moral hazard, the standard incentive-compatible mechanism to incentivize effort is to anchor managerial compensation to observable firm outcomes.¹²⁰ Although challenged by shareholder advocates, the rationale behind incentive compensation schemes is that the cost to a manager of exerting effort is outweighed by the expected reward she receives for improved performance, which makes the exercise of effort individually efficient for the manager.

Along the same lines, in the case of adverse selection, a contract is deemed to be incentive compatible when it makes it in the agent's interest to truthfully reveal her information, preventing bad types from mimicking good types.¹²¹ A solution to this end is offering the agent a menu of contractual choices—a collection of payoff-relevant alternatives—designed in such a way that the agent's choice within the menu reveals her private information. In particular, as specified by contract theory, separating mechanisms can be designed either according to a model of "screening,"¹²² under which the principal takes action—as, for example, with an insurer's request of an insurance deductible.¹²³ Alternatively, such mechanisms can be designed accord-

120. See *supra* note 64 and accompanying text.

121. See Roger B. Myerson, *Perspectives on Mechanism Design in Economic Theory*, 98 AM. ECON. REV. 586, 587 (2008).

122. See Michael Rothschild & Joseph Stiglitz, *Equilibrium in Competitive Insurance Markets: An Essay in the Economics of Imperfect Information*, 90 Q.J. ECON. 629, 639–40 (1976) (introducing a seminal treatment of screening mechanisms where poorly informed agents extract information from the better informed, such as in the insurance context).

123. The intuition here is that only good types (i.e., low-risk prospective customers) will be willing to accept the deductible, as their lower risk propensity makes them less likely to end up paying it. See *id.*

ing to a model of “signaling,” under which the agent takes action,¹²⁴ for example, with the offering of a seller’s warranty.

Therefore, if it could be shown that either screening or signaling mechanisms were available to shareholders *ex ante* (i.e., before hiring a manager) to separate good and bad managers, assuming away adverse selection issues would be justifiable. This is because in this case, the shareholders’ problem would be reduced solely to avoid moral hazard by good managers. Alternatively, it could be that incentive compensation is effective to address both issues of moral hazard and adverse selection. The ensuing discussion, however, exposes both the lack of *ex ante* separating mechanisms to mitigate adverse selection issues in the shareholder-manager relationship and the limits of using incentive compensation to the same end. It therefore also exposes an analytical framework that only incorporates the managerial moral hazard problem as incomplete.

1. The Lack of Ex Ante Separating Mechanisms

How realistic is the assumption that *ex ante* mechanisms to separate good and bad managers are available to shareholders? If adverse selection was just a problem of incompetence—the risk of hiring an unskilled or unqualified manager—one could reasonably argue that signaling mechanisms are available to mitigate the problem. A manager’s educational records, industry expertise, reputational capital, and networking skills are all examples of credible signals that a manager can use (or a firm can acquire and consider) to that end.

As highlighted by the simple illustration above, however, a manager’s hidden knowledge about her “type” does not just concern her competence or expertise. It also concerns a manager’s hidden preferences *and* exclusive knowledge of business conditions. Designing an incentive-compatible contract for these additional sources of adverse selection is much more prob-

124. Adverse selection may not just be bad for the principal. When the principal cannot distinguish between good and bad types, he will pool them together, with the result being cross-subsidization: good types will receive worse terms (i.e., pay higher prices or receive lower rewards) than they would if their type was knowable, whereas bad types will receive far better terms. See Akerlof, *supra* note 91, at 491. In response to this problem, good types also have incentives to separate from bad types through the use of signaling. See generally Michael Spence, *Job Market Signaling*, 87 Q.J. ECON. 355 (1973) (providing a seminal treatment of signaling mechanisms where the better informed take costly actions in the attempt to “signal” their type, such as in the job market).

lematic than in the case of managerial competence. For one thing, the “soft” nature of private information¹²⁵ about a manager’s preferences or knowledge of the business is likely to reduce the availability of signaling mechanisms. Information about a manager’s competence—for example, a manager’s educational records—tends to be verifiable by the shareholders once it is disclosed. Conversely, the nature of a manager’s information about her preferences or knowledge of the business may be more difficult for outsiders to verify, with the result that bad types may mimic good types by disclosing the same unverifiable soft information.

Screening mechanisms are also unlikely to be available for these additional sources of adverse selection. On the one hand, the limited liability of the corporate form restricts the set of available contractual menus shareholders can offer to managers. It does so by preventing shareholders from imposing a negative payoff on the manager for the realization of a bad state of the world—such as the failure of an excessively risky project or a poor-quality project.¹²⁶ Thus, while an insurer can use a deductible to induce the revelation of information concerning a customer’s risk propensity, shareholders cannot employ a similar screening technology to extract *ex ante* information on the manager’s type.

On the other hand, while shareholders could, in theory, resort to a different menu of contracts, their incentives to increase efficiency *ex post*—over the development of the relationship with the agent—are likely to weaken the efficacy of *any* screening technology. This problem, which economists label “limited commitment” (or “time inconsistency”),¹²⁷ is not exclu-

125. See *supra* note 23 and accompanying text.

126. An exception to this assumption arises under the Dodd-Frank Act’s clawback provision. See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 954, 124 Stat. 1376, 1904 (2010) (codified as amended at 15 U.S.C. § 78j-4). This provision allows corporations to recover incentive-based compensation paid to managers if there is a financial restatement due to the material noncompliance of the issuer with any financial reporting requirements in the three-year period following the incentive’s payment. See *id.* This circumstance, however, can only capture a very small portion of bad managers, as it is premised on the assumption that the manager’s private information becomes *ex post* observable and verifiable by a third-party adjudicator. But this is a condition that is likely to be satisfied only in a small fraction of cases.

127. The seminal economic treatment of the “limited-commitment” problem in contract theory is Jean-Jacques Laffont & Jean Tirole, *The Dynamics of Incentive Contracts*, 56 *ECONOMETRICA* 1153, 1158–59 (1988). The original intui-

sive to the shareholder-manager context. Rather, it pervades all “dynamic” agency relationships involving asymmetric information and a temporal lag between the undertaking of the agent’s actions and the full realization of these actions and their consequences.

Under these transactional features, a chosen incentive structure will often leave money on the table *ex post*.¹²⁸ This produces a tension between modifying the initial contract to reduce *ex post* efficiency losses, and providing the agent with efficient incentives *ex ante* (i.e., before the agent is hired). Because a rational agent anticipates that the initial incentives may not remain binding for the entire course of the relationship, those incentives become no longer attractive to her in the first place, which may lead to even greater efficiency losses.

Thus, in the corporate context, a bad manager anticipates that revealing information on her type by choosing a given contract within a menu will lead the shareholders to subsequently modify the contract. In particular—and unlike in other contexts where adverse selection issues may arise, such as the insurance market—shareholders can be expected to react to the disclosure of the manager’s bad type by either deciding not to hire the manager in the first place or firing her. Indeed, contracting with a bad type (i.e., a high-risk prospective customer) may still be profitable to an insurer as long as she can set *ad hoc* contractual terms (i.e., higher insurance premiums). On the contrary, contracting with a bad manager tends to be always unprofitable to shareholders. Therefore, it will generally be rational for a bad manager to hide her type.

A modification of the above illustration will help to gain better understanding of the matter. For simplicity, since our

tion, however, is credited to Ronald Coase, who first pointed out (in the famous Coase Conjecture) that in the absence of credible commitment, a durable-goods monopolist is unable to extract any rent. See R.H. Coase, *Durability and Monopoly*, 15 J.L. & ECON. 143, 145–46 (1972). For discussions of the limited commitment problem in legal scholarship, see Christine Jolls, *Contracts as Bilateral Commitments: A New Perspective on Contract Modification*, 26 J. LEGAL STUD. 203, 231–33 (1997) (arguing that commitment problems provide a justification for prohibiting contractual modification); Talley, *supra* note 107, at 283, 350 (discussing the limited commitment problem that arises in the corporate opportunities context); Henry Hansmann & Reinier Kraakman, *Hands-Tying in Principal-Agent Relationships: Venture Capital Financing, Publishing Contracts, and Academic Tenure* (Dec. 1989) (unpublished manuscript) (on file with author) (examining commitment problems in several contractual contexts).

128. Talley, *supra* note 107, at 350.

goal is to show that ex ante separating mechanisms are not available to mitigate adverse selection issues in the corporate context, let us assume that the choice of available projects is limited to the Innovative Project (i.e., the production of an innovative computer) and the Bad Project (i.e., the production of an obsolete computer). Let us also assume that the menu of contracts offered by the shareholders to the prospective manager included only two contracts. The first, or “Equity Contract,” provides for a managerial pay package that includes a high equity-compensation component and a low fixed-salary component. The second contract, or “Salary Contract,” provides for a low equity-compensation component and a high fixed-salary component. In principle, this contractual menu should induce a Good Manager—who will undertake the Innovative Project—to select the Equity Contract, as she can be expected to be confident about the future success of the innovative computer. Conversely, a Bad Manager—who can only undertake the Bad Project—should be motivated to choose the Salary Contract, as she will generally anticipate that an obsolete computer will soon fail to be competitive.

A rational Bad Manager, however, will anticipate that the shareholders may have incentives to use the private information revealed through her choice of a Salary Contract to subsequently modify that contract, not hiring the manager in the first place or firing her straight after the disclosure of such information.¹²⁹ As a result, the Bad Manager will also choose the Equity Contract and the shareholders will be unable to tell good managers apart from bad ones.

2. The Limits of Incentive Compensation

The prior Section has showed the general lack of ex ante separating mechanisms—either taking the form of signaling or screening devices—to address the adverse selection issues that arise in the shareholder-manager relationship. However, it could be argued that the incentives shareholders provide managers for the purpose of reducing moral hazard are also effective to mitigate adverse selection. After all, a manager’s preferences or private information on the business only matter for the shareholders if the manager decides to act on that information

129. See *supra* note 119 (discussing how the example’s setting can be interpreted as referring to either the moment of a manager’s initial hiring or that of the subsequent review of a manager’s compensation).

to the shareholders' detriment.¹³⁰ From this perspective, if the incentives the shareholders provide to managers to avoid moral hazard could also prevent managers from opportunistically exploiting their hidden knowledge, assuming away adverse selection issues would be justified in practice, if not in theory. As this Section will explain, however, "bad" managerial types do not respond to incentives for optimal project selection. Therefore, this Article argues that the crucial limit of incentive compensation is adverse selection, rather than the risk of board capture, as claimed by shareholder advocates.

The example introduced above is again useful to better illustrate this conclusion. In the example's context, assuming that incentive compensation can be used to effectively address both moral hazard and adverse selection implies that the shareholders could design an Equity Contract that makes it individually rewarding for the manager both to choose the Innovative Project over the Regular Project, if the manager is Good, and the Innovative Project over the Bad Project, if the manager is Bad.¹³¹

Two reasons, however, suggest that this contract will generally be unavailable to shareholders. The first reason concerns feasibility issues and is provided under standard economic models of moral hazard and adverse selection. Indeed, in moral hazard models, shareholders are assumed to know the nature and monetary value of the private benefits a manager can extract. In adverse selection models, however, they are assumed to lack these pieces of information.¹³² This implies that shareholders cannot design an incentive-compatible contract that can at once address moral hazard and adverse selection, as they are uncertain about the incentives constraints that such a contract needs to satisfy.

More concretely, in our illustration, the shareholders could anticipate the value to a Good Manager of saving the cost of effort and, therefore, be able to design a compensation contract

130. Put differently, if the manager's action were perfectly observable by the shareholders, bad managers would not opportunistically exploit their private information, as they would anticipate their behavior to trigger shareholder retribution.

131. Unlike in the example in Part II.C.1, here we do not assume away moral hazard. It follows that a Good Manager can choose between the Regular Project and the Innovative Project.

132. See *supra* text accompanying notes 108–12 (listing the five factors that principals must anticipate in moral hazard models and the three factors that principals must anticipate within adverse selection models).

that rewards the manager for bearing this cost. However, in order to ensure that the manager's compensation contract is also effective for a bad type, the shareholders would need information about the nature of the Bad Project and the benefits the manager derives from it, which they are assumed to lack. Thus, whether the bad type is driven to the Bad Project because of, for example, the lack of adequate skills, hubris, or to safeguard a prior personal relationship will affect the kind of incentives the shareholders need to provide the manager in order to make her compensation contract incentive-compatible. Without being privy to this information, then, the shareholders will be unable to design such a contract.

The second reason that limits the effectiveness of incentive compensation to mitigate adverse selection is that even if shareholders were able to provide managers with the right incentives to avoid acting opportunistically on their hidden knowledge, doing so would be excessively costly to them.¹³³ Indeed, one could argue that shareholders do not need to have exact knowledge of a manager's incentive constraints in order to design effective incentives. Conversely, it would be sufficient that shareholders held rational expectations about managerial behaviors, which they could reasonably infer from publicly available information. For example, in order to determine the expected engagement in private benefits extraction of a bad manager, shareholders could rely on information such as the kind of industry a firm is in, the nature of the firm's business, the technology it employs, its existing projects, and so on. Under these conditions, incentive constraints would no longer be uncertain, allowing shareholders to write contracts that can induce the manager to behave.

This argument, however, fails to take into account that contracts based on rational expectations about managerial behavior effectively pool good and bad types together.¹³⁴ This is because rational expectations are necessarily based on average managerial behaviors, implying that, in practice, there will always be "worse" managerial types that misbehave more than the shareholders anticipate—for example, extracting higher than expected private benefits.

133. See *infra* Appendix Section B (illustrating the excessively costly result more tangibly).

134. If one assumes that managerial competence is a source of adverse selection that can be addressed through screening mechanisms, the resulting equilibrium would be a semi-pooling.

Of course, this problem could be solved if the shareholders designed the contract so that its terms incentivize the worst possible types. Still, while this incentive design could be socially optimal, it is unlikely to be individually optimal for the shareholders. In setting managerial incentives, rational shareholders will factor in expectations about managerial behaviors as well as the distribution of managerial types, and then leave information rents (i.e., pecuniary incentives) to the manager up to the point where these rents' marginal return equals their marginal cost. At an intuitive level, if the worst type is able to extract a very high private benefit, but the probability of dealing with her is relatively low, the shareholders are likely to be better off by accepting the risk of dealing with the worst type than offering a very high information rent that can induce all agents to behave.¹³⁵

Under this conclusion, adverse selection, rather than board capture, emerges as the crucial limit of incentive compensation. As discussed above, shareholder advocates maintain that the risk of board capture makes designing compensation contracts that satisfy the incentive-compatibility constraint impossible.¹³⁶ Underlying this view is the undisputable fact that the corporate role of CEOs and other executives give them the opportunity to influence outside board members. Yet, whether executives exploit this opportunity in the way described by shareholder advocates is a hypothesis that requires empirical verification and the empirical evidence gathered to date does not seem to support it.¹³⁷

135. From this perspective, the shareholders' decision to offer a contract that is incentive-compatible for only a fraction of managers endogenously determines the level of adverse selection (i.e., the fraction of bad managers who do not respond to incentives).

136. See *supra* text accompanying notes 64–67 (discussing how board capture negates the premise of incentive compatibility because principals can take an adversarial position against agents).

137. See K.J. Martijn Cremers et al., *CEO Pay Redux*, 96 TEX. L. REV. 57–60 (forthcoming 2017) (on file with author) (documenting empirical evidence that is inconsistent with the board capture hypothesis); Kevin J. Murphy, *Explaining Executive Compensation: Managerial Power Versus the Perceived Cost of Stock Options*, 69 U. CHI. L. REV. 847, 851–52 (2002); see also Fama & Jensen, *supra* note 40, at 315 (arguing that the anecdotal evidence negates the board-capture theory); Randall S. Thomas, *Explaining the International CEO Pay Gap: Board Capture or Market Driven?*, 57 VAND. L. REV. 1171, 1175–76 (2004) (arguing that the board capture theory does not explain several observations about CEO compensation). Further, it remains unclear how board capture could play a role in the setting of contracts of executives hired “from the outside,” i.e., having no prior or current ties to the existing

What matters most, however, is that even assuming that the risk of board capture could be eliminated—for example, by vesting shareholders with direct decision-making power over managerial compensation, as assumed in our illustration—the use of incentive compensation would still fail to fully protect shareholder interests. This is because once one factors in the problem of adverse selection, in addition to moral hazard, incentive compensation is not a viable means to ensure that managers will behave.

III. THE MORAL HAZARD-ADVERSE SELECTION TRADEOFF

Part II has exposed the information structure of the shareholder-manager relationship as being more complex—both in theory and in practice—than commonly assumed in corporate law scholarship. This Part argues that this information complexity further increases when one takes into account that moral hazard and adverse selection are competing problems, whose solutions expose shareholders to a weightier corporate governance tradeoff than commonly understood. This tradeoff arises because trying to control adverse selection *ex post*—by strengthening the shareholders’ power to promptly remove bad managers—may distort the *ex ante* contractual incentives employed to promote managerial effort.

A. SHAREHOLDER REMOVAL IN THE SHADOW OF ADVERSE SELECTION

Under the standard information account of the shareholder-manager relationship, the right to remove directors, and hence, their managers, is described as one of the essential powers at shareholders’ disposal to mitigate the moral hazard problem.¹³⁸ Shareholder advocates, in particular, defend the need for unconstrained removal—the exercise of removal unencumbered by the adoption of defensive measures or other obstacles—as necessary for efficient corporate governance.¹³⁹ Indeed, only by

board of directors. Shareholder advocates describe board capture as arising from board members being “connected to executives by bonds of interest, collegiality, or affinity.” Bebchuk et al., *supra* note 30. Such bonds, however, are unlikely to be in place in the case of a newly hired CEO. See Murphy, *supra* note 137, at 850, 852–54 (documenting empirical evidence on outside hires that is inconsistent with the board capture hypothesis).

138. See *supra* text accompanying notes 50–52.

139. See *supra* text accompanying notes 67–68.

ensuring that shareholders have an unconstrained power to replace directors and managers could the risks of entrenchment and board capture be kept under control.

As to the shareholders' ability of taking accurate removal decisions, the economic assumption is that changes in a firm's stock prices provide a sufficient statistic on managerial and directorial performance under the semi-strong form of the Efficient Capital Market Hypothesis (ECMH).¹⁴⁰ In other words, because opportunistic managers and captured directors would be statistically more likely to be associated with low stock prices, shareholders could rely on changes in a firm's stock prices for guidance on removal decisions.

While this approach to the shareholders' removal power is intuitively straightforward, this Article argues that it nevertheless provides an incomplete account of the function of this power. First, this approach fails to consider adverse selection issues. Second, it stands against standard economic assumptions about the use of incentive compensation as a helpful means to mitigate moral hazard. Perhaps more importantly, it also runs opposite to the widespread adoption of incentive-based managerial compensation schemes we observe in the real corporate world.

Incorporating these facts into the analysis of the shareholders' removal power suggests that a neglected—and, yet, pivotal—function of such a power is to reduce adverse selection costs. As discussed in Part II, in the corporate context no incentive-compatible mechanisms are available to mitigate the problem of adverse selection *ex ante*, i.e., before a manager is hired. This suggests that while the power of removal can offer a complementary remedy against moral hazard, it is likely most helpful as an *ex post* remedy against the hire of a bad manager. It does so by enabling shareholders to promptly get rid of a manager should her performance, as impounded in a firm's stock price, induce them to believe she is a bad type.

Within this theoretical framework, removal primarily matters to shareholders for reasons different than those defended by shareholder advocates. Nevertheless, if the issue was only that removal is likely most helpful to address problems of adverse selection than moral hazard, these advocates would still have a point in defending shareholders' newly found ability to exercise removal virtually at all times.

140. *See supra* note 71.

This conclusion, however, no longer holds true once the complexity of the information problems imbuing the shareholder-manager relationship is considered in full. Indeed, this complexity, as shown in the next Section, challenges the shareholders' ability to exercise removal effectively, raising costs that may exceed the expected benefits of removal.

B. UNINFORMATIVE MARKET PRICES

Shareholder advocates assume that a firm's stock price provides a sufficient statistic on managerial performance and hence guidance for accurate removal decisions. What these advocates do not consider, however, is that this assumption weakens to the extent a manager invests in a specific long-term project where there is a lag between the time the investment is made and when its value is realized. Classic examples of these projects include investments in innovation and other intangible "knowledge" assets, such as ideas, patents, brands, software, copyrights, and the like.¹⁴¹ Importantly, these investments have become a defining feature in modern corporate production, as today's corporations derive most of their value from the ability to access, transfer and assemble specific "knowledge," rather than from tangible assets (such as land, machines, raw materials, buildings, and the like).¹⁴² Thus, while it may be tempting to downplay the importance of specific long-term investments as only affecting the "usual suspects"—companies such as Google, Facebook, Apple, Tesla, and the like—a recent study documents that 80% of the market value of U.S. corporations is nowadays represented by intangible assets.¹⁴³

The shift from tangible to intangible investments has fundamental implications for asset pricing efficiency. Tangible assets are visible, meaning that the quality of a firm's investment in a new plant or the purchase of land to build new headquarters can generally be capitalized on a corporation's balance sheet and, therefore, observed by investors as hard (i.e., verifiable) information. On the contrary, investments in intangibles tend to mostly involve "soft" information, which are difficult for

141. For a more concrete exemplification, recall the Innovative Project from the illustration in Part II.A.

142. See BIG INNOVATION CTR., *THE PURPOSEFUL COMPANY—INTERIM REPORT*, 5, 14 (2016), <http://www.biginnovationcentre.com/media/uploads/pdf/The%20Purposeful%20Company%20Interim%20Report.pdf>.

143. See Colin Mayer, *Reinventing the Corporation*, 4 J. BRITISH ACAD. 53, 54 (2016).

outsiders to verify even if disclosed to them. Meanwhile, channeling resources to such investments typically demand large capital expenditures up-front and thus tend to decrease short-term earnings, which is a type of hard information that the current stock price can more easily incorporate.¹⁴⁴

Under these transactional features, the shareholder advocates' assumption that short-term and long-term changes in value tend to be positively correlated¹⁴⁵ may no longer hold true. On the contrary, prices may fail to fully capture the implications of a firm's specific long-term investment until those implications begin to show up in cash flows over time, being therefore largely uninformative in the short term.¹⁴⁶

The possibility of uninformative short-term market prices challenges the assumption that shareholders can exercise the power of removal efficiently by relying on market prices information. Two basic economic facts support this conclusion. First, bad types are statistically more likely to be associated with a disappointing firm outcome (i.e., low earnings).¹⁴⁷ Second, the short-term inability of good managers to support communication about the quality of a specific long-term investment with hard information makes it especially difficult for good types to send credible signals to shareholders. As a result, shareholders may rationally, but inefficiently, respond to the short-term fall

144. See Edmans et al., *supra* note 23.

145. See Bebchuk, *supra* note 92, at 1663.

146. More technically, uninformative short-term prices are "nonmonotonic" in the sense that they do not follow a consistent informational pattern due to the information asymmetry problems existing between shareholders and managers. The economic mechanisms explaining such inconsistency hinges on Bayesian updating, which identifies the process through which rational investors update their beliefs about firm value. See Paul R. Milgrom, *Good News and Bad News: Representation Theorems and Applications*, 12 BELL J. ECON. 380 (1981). It is also worth emphasizing that the possibility of uninformative prices does not require discarding the semi-strong version of the ECMH hypothesis. Because the root cause of uninformative prices lies in the insiders' *private* knowledge of business conditions, assuming that market contracting accurately reflects all available *public* information does not change the conclusion that the market may fail to perceive actions that are expected to be positive in the long term as positive in the short term.

147. Managers who engage in moral hazard are also statistically more likely to be associated with low stock prices. However, under the assumption that incentive compensation helps mitigate the problem of managerial moral hazard, it is more likely that a low stock price might be interpreted as signaling a bad type, rather than a good but opportunistic one. In any event, whether shareholders interpret a low firm outcome as signaling a bad type or an opportunistic one does not change the conclusion that they will have incentives to exercise removal upon observing such an outcome.

in stock price that may follow a specific long-term investment by exercising their removal power (or even just by threatening removal in order to force changes to existing firm policies), although that outcome might be the result of uninformative short-term prices rather than the reflection of a manager's bad type.

C. STRATEGIC SIGNALING

The potential for inaccurate removal decisions by shareholders raises substantial costs. These costs are not limited to the expected loss of value caused by the mistaken removal of a good manager or the pressure for inefficient changes in a firm's investment policy. More significantly, in the struggle to achieve separation and avoid removal, good managers may develop a preference for *strategic signaling*: undertaking projects that are expected to improve the shareholders' perception of their type even if this comes at the expense of optimal project selection.¹⁴⁸ On the one hand, managers may be induced to pass up profitable specific long-term projects, as these projects are more likely to result in "early failure," i.e., trigger a short-term decline in stock prices. On the other, they may prefer short-termist strategies, which yield high short-term returns at the expense of long-term firm value, as these strategies improve a manager's chances at separating from bad types and, hence, avoid removal.¹⁴⁹

148. See Ayres, *supra* note 107, at 397–400 (discussing how the existence of corporations with bad projects and their incentives to mimic the signals sent by corporations with good projects imposes an externality on the latter, inducing them to engage in inefficient excessive signaling).

149. The theoretical models of managerial myopia that appeared in the 1980s, during the takeover era, pioneered the study of these distortions, making formal connections between an excessive, takeover-driven focus on stock-market results and the risk of short-termism. These models were pioneered by Jean-Jacques Laffont, Jean Tirole, and Jeremy Stein. 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, 529–31 (1988) (showing formally that if investments are invisible, high investments might be mistaken for low effort and increase the likelihood of a takeover); Jeremy C. Stein, *Efficient Capital Markets, Inefficient Firms: A Model of Myopic Corporate Behavior*, 104 Q.J. ECON. 655, 656–61 (1989) (modeling suboptimal investment where managers maximize a weighted average of near-term stock prices and long-run value); Jeremy C. Stein, *Takeover Threats and Managerial Myopia*, 96 J. POL. ECON. 61, 62–67 (1988) (showing formally that managers of a firm threatened by a takeover will sell an underpriced asset). Under the influence of neoclassical economic thinking, however, mainstream corporate legal theory barely took notice of myopia studies, at least until the 2007–08 financial crisis. See William W. Bratton & Michael L. Wachter,

This analysis reveals the existence of a basic corporate governance trade-off between addressing the problems of moral hazard and adverse selection. This trade-off arises out of the distortions that the use of the shareholders' power of removal to control adverse selection ex post may induce ex ante in the contractual incentives that should promote managerial effort. If good managers were not exposed to a higher risk of removal for the realization of a low short-term outcome, undertaking profitable long-term specific projects would generally be individually efficient for them under the "right" incentive scheme. However, under the risk of false matching by bad types and the threat of short-term removal, the reward a good manager expects to receive for selecting a specific long-term project is likely to be outweighed by the higher expected risk of removal she bears under this project. This risk might then induce even a good manager to become unresponsive to incentives for optimal project selection, interfering with both shareholder and aggregate welfare maximization.

Our illustration in Part II.A is again useful to discuss these dynamics more concretely.¹⁵⁰ Recall that under the illustration's setting there are only three kinds of projects a prospective manager can undertake: the Regular Project (i.e., the restyling of a successful computer), the Innovative Project (i.e., the production of an innovative computer) and the Bad Project (i.e., the production of an obsolete computer). The illustration also poses that only a Bad Manager can undertake a Bad Project, with Bad Managers representing 20% of the overall managerial population.

Assume now that, consistent with the riskier nature of the Innovative Projects, in the short-term this project delivers a payoff of 100 with a probability of 80% and zero otherwise, while the safer Regular Project delivers a payoff of 100 with certainty. Recall, however, that the Innovative Project is more valuable than the Regular Project over time.¹⁵¹ The Bad Project,

The Eclipse of the Shareholder Paradigm 56–57 (Jan. 15, 2015) (unpublished manuscript) (on file with author).

150. This modification of the illustration introduced in Part II focuses on the effects of adverse selection on managerial incentives. This Article's Appendix provides a more rigorous treatment where the problem of moral hazard and adverse selection are considered simultaneously. See *infra* Appendix Section C. It is also worth emphasizing that the illustration's results are robust to changes in numerical parameters.

151. The assumption here is that the expected long-term returns from the Innovative Project more than compensate for the lower expected returns this

on the other hand, delivers a short-term payoff of 100 with only a 10% probability, while also being the least profitable in the long term. Further assume that the shareholders have written the manager's compensation contract so to provide a prospective Good Manager with the right pecuniary incentives to prefer the Innovative Project to the Regular Project. Finally assume that—as advocated by the supporters of shareholder primacy and as it is increasingly the case in the current corporate scenario with empowered shareholders—the shareholders in our illustration are granted an unconstrained power of removal, so that they can promptly remove the manager if they deem the manager to be Bad.

Against this setting, let us consider the case where the shareholders observe a zero payoff in the short term, which can either come from the undertaking of the Innovative Project or the Bad Project. The shareholders will then have to decide whether to retain the manager or remove her depending on their inference about the manager's type. In the jargon of game theorists, the process through which shareholders form this inference is called "updating beliefs" and works as follows. Before observing the payoff from the short term, the shareholders will have a given "prior" on the probability that they might be dealing with a good or bad manager. This prior coincides with the distribution of types: in our illustration, the shareholders thus believe they might hire a Good Manager with an 80% probability and a Bad Manager with a 20% probability. After observing the payoff from the short term, however, the shareholders will form a new (or updated) belief—referred to as "posterior"—on the probability they might be dealing with a Good or Bad Manager. Specifically, rational shareholders will determine their posterior pursuant to the Bayes' Rule,¹⁵² under which $Prob[\text{Manager} = \text{Good} \mid \text{Observing } 100]$ is equal to:

$$\frac{Prob[\text{Manager} = \text{Good}] \times Prob[\text{Observing } 100 \mid \text{Manager} = \text{Good}]}{Prob[\text{Observing } 100]}$$

Upon observing a zero payoff in the short term, the shareholders will thus believe to be dealing with a Good Manager with a probability equal to $(0.8 \times 0.2) / [(0.8 \times 0.2) + (0.2 \times 0.9)] =$

project delivers in the short-term. See *infra* Appendix Figure 1 (summarizing the characteristics of each project).

152. See MORRIS H. DEGROOT, OPTIMAL STATISTICAL DECISIONS 11–12 (Wiley Classics Library 2004) (1970).

47.1%. Accordingly, as the probability they might be dealing with a Bad Manager is higher than the probability they might be dealing with a Good one, the shareholders will rationally decide that removal is the right action to take.

A Good Manager, however, will anticipate the shareholders' future beliefs, adjusting her behavior accordingly. In particular, the manager understands that she will continue to be employed only if the shareholders observe a short-term payoff of 100 (i.e., a high short-term firm outcome). This will occur with probability 80% when the manager chooses the Innovative Project; conversely, it will occur with certainty if she chooses the Regular Project, which involves a more standardized, and hence safer, investment. In other words, a Good Manager is aware that selecting the Regular Project increases the short-term likelihood that the shareholders will believe she is a good type and, therefore, her chances to avoid removal. Indeed, when the shareholders observe a short-term payoff of 100, their posterior on the probability that the manager is Good under the Bayes' Rule becomes: $(0.8 \times 1) / [(0.8 \times 1) + (0.2 \times 0.1)] = 97.6\%$.

Under similar circumstances, as shown more analytically in this Article's Appendix,¹⁵³ the preference a Good Manager develops for strategic signaling will make the pursuing of the Innovative Project no longer profitable to the manager even under the "right" pecuniary incentives. This is because under the threat of short-term removal by the shareholders, the higher expected loss the manager bears for the risk of losing future payoffs under the Innovative Project outweighs her expected reward for undertaking that project. Hence, choosing the Regular Project—engaging in strategic signaling—is a Good Manager's best response when she is exposed to the threat of short-term removal by the shareholders.

IV. TOWARD A NEW CORPORATE MODEL

Part III has discussed the positive implications arising from the coexistence of moral hazard and adverse selection issues in the shareholder-manager relationship, showing that the competing nature of these problems exposes shareholders to a fundamental—and yet largely overlooked—governance tradeoff.

153. See *infra* Appendix Section C.

This Part turns to analyzing the normative implications of this tradeoff. Section A shows that a regime of “time-consistent”¹⁵⁴ removal decisions, under which the shareholders’ power of removal is delayed to the longer term, facilitates the moral hazard-adverse selection tradeoff. It does so by ensuring that removal decisions are constrained to a time when market prices are more likely to accurately gauge information on managerial types and the fundamental value of a firm’s investment choices.

Sections B and C explain why both the shareholder primacy model and the board primacy model are inconsistent with the above theoretical result.

Last, Section D demonstrates that a competing corporate model with virtually exclusive board authority in the short term and enhanced shareholder rights in the longer term is better suited to implement a time-consistent removal regime. A board protected from shareholder pressure is more likely to be biased toward tolerating the occurrence of disappointing firm outcomes. Hence, a biased, insulated board can be expected to reduce the risk that imperfectly informed shareholders might inefficiently remove a good manager upon what may appear to them as an early failure. From this perspective, in the short term a board’s bias provides a beneficial commitment device to the longer-term evaluation of managerial decisions. Over time, however, a board’s bias might grow excessive, while market prices can be expected to provide shareholders with a more accurate informational focal point. Therefore, in the long run board authority should be relaxed in favor of granting shareholders stronger governance rights, including an unconstrained power of removal.

A. TIME-CONSISTENT REMOVAL DECISIONS

Under the incorporation of adverse selection into the analysis of the shareholder-manager relationship, trying to control the problem of bad managers by strengthening the shareholders’ power of removal—so to allow shareholders to exercise such power potentially at any time—may impair the shareholders’ ability to successfully incentivize managerial effort. Yet, in light of the lack of *ex ante* separating mechanisms and the limits of incentive compensation, removal remains the only means available to shareholders to lower the cost of hiring a bad man-

154. *See supra* text accompanying note 127.

ager. Economically, this points to the need of finding an “interior solution,” under which mitigating one information problem does not occur at the expense of exacerbating the other.¹⁵⁵

It is rather intuitive to see why a governance model that provides for a “time-consistent removal” regime offers this solution. Under this regime, shareholders would commit to the longer-term evaluation of directorial and managerial actions and, more generally, to avoid using the threat of removal to interfere with incumbent actions in the short term.¹⁵⁶ This would ensure that removal decisions are taken by shareholders when market prices can be expected to more accurately reflect information on the fundamental value of a firm’s investment choices, thereby reducing the risk of inefficient removal of good managers and, hence, strategic signaling.

Football fans should easily grasp the intuition here. A football coach will have a better inference of her team’s strengths and weaknesses as the football season proceeds and the number of games increases. Thus, completely reorganizing a team simply because it loses the first one or two games of the season would be a poor decision on her part. Doing so when the rest of the season progresses poorly, however, becomes the rational decision to make. Similarly shareholders will be better positioned to evaluate managerial decisions (and, hence, managerial types), as the value implications of those decisions begin to materialize in streams of cash flows over time. As a result, the benefit removal offers against adverse selection will be less likely to come at the expense of the introduction of distortions in the incentives designed to promote managerial effort.

If this conclusion is correct—that a time-consistent removal regime facilitates the moral hazard-adverse selection tradeoff—we would expect that a Good Manager’s incentives to undertake the Innovative Project are better preserved when the shareholders in our illustration are required to wait until after the short term to decide on managerial removal. To test this conjecture, let us modify our setting so to introduce an intermediate realization between the short term and the long term—the medium term. Since our illustration poses that the company is eventually liquidated in the long term, adding this

155. See MICHAEL CARTER, FOUNDATIONS OF MATHEMATICAL ECONOMICS 502 (2001) (defining an *interior* solution as an interior point of the feasible set of solutions to an optimization problem).

156. For examples regarding time-consistent removal, see *infra* Appendix Section D.

intermediate realization allows us to explore the welfare implications of delaying the exercise of the shareholders' power of removal over the longer term but, of course, before the company is liquidated.

For simplicity, let us also assume that the structure of the medium-term payoffs is identical to that of the short-term payoffs for each of the available projects. Hence, in both the short term and the medium term, the Innovative Project delivers a payoff of 100 with probability 80% and zero otherwise, the Regular Project delivers a payoff of 100 with certainty, and the Bad Project delivers a payoff of 100 with a 10% probability. However, as above, in the long term, the Innovative Project is more profitable than the Regular Project, while the Bad Project is the least profitable project. The distribution of types also remains the same, with Bad Managers representing 20% of the overall managerial population.

As above, the shareholders will then have to decide whether to retain the manager or remove her depending on their inference about the manager's type. Here, however, the shareholders will have to wait until the end of the medium term before being able to make such a decision. Analytically, this implies that the shareholders will apply the Bayes' Rule sequentially in order to update their belief on the manager's type, factoring in the observation of a stream of payoffs (i.e., the short-term realization *plus* the medium-term realization) as well as the observation of these payoffs' order.¹⁵⁷ For convenience, Figure 1 below summarizes the shareholders' posteriors after observing any possible combination of payoffs yielded in the short and medium term.¹⁵⁸

157. See Milgrom, *supra* note 146, at 381–82, 385–87.

158. *Infra* Appendix Section D details the calculations of the shareholders' posterior for each possible combination of payoffs.

Figure 1: Medium-Term Posterior Beliefs

Posterior Belief	Probability
$Prob[\text{Manager} = \text{Good} \text{Observing } 0 \ \& \ 0]$	16.5%
$Prob[\text{Manager} = \text{Good} \text{Observing } 0 \ \& \ 100]$	87.7%
$Prob[\text{Manager} = \text{Good} \text{Observing } 100 \ \& \ 0]$	87.7%
$Prob[\text{Manager} = \text{Good} \text{Observing } 100 \ \& \ 100]$	99.6%

Consistent with this Article's theoretical predictions, Figure 1 shows that the shareholders gain a much better inference about the likelihood that a manager be Good or Bad when they are required to wait until the medium term before deciding on managerial removal. Recall that with the observation of only a zero short-term payoff, the shareholders believed the manager to be Good with a 47.1% probability.¹⁵⁹ When the shareholders can rely on two consecutive payoffs, instead, their posterior becomes much more accurate. On the one hand, if the shareholders observe two consecutive zero payoffs, they can be considerably more confident that the manager is Bad, as there is only a 16.5% probability that the manager might be Good under these realizations. Conversely, if the shareholders observe a short-term payoff of zero and then a payoff of 100,¹⁶⁰ they can be rather confident that the manager is Good, as this probability increases to 87.7% under these alternative realizations.

The explanation behind these results is rather straightforward. In the short term, in light of the possibility of uninformative market prices, a Good Manager pursuing an Innovative Project and a Bad Manager may both end up with zero returns so that a Bad Manager can easily mimic a Good one. However, in the medium term, when the implications of managerial choices can be expected to be more accurately impounded in firm outcomes, a Bad Manager is much more likely than a Good

159. See *supra* text accompanying note 152 (using Bayes' Rule to determine that the Manager would be Good with a probability of 47.1%).

160. The case where the shareholders observe a short-term payoff of 100, whether followed by another payoff of 100 or a zero payoff in the medium-term, does not pose a problem as per the discussion in Part III.C.

Manager to deliver two consecutive zero payoffs, with the result that false matching becomes a more remote possibility. This means, in practice, that the risk that the shareholders may mistakenly fire a Good Manager (or, likewise, mistakenly retain a Bad Manager) is considerably reduced under a time-consistent removal regime. As a result—as illustrated more analytically in this Article’s Appendix Section D—Good Managers will have fewer incentives for strategic signaling.¹⁶¹

B. THE LIMITS OF SHAREHOLDER EMPOWERMENT

This Article’s analysis of the information problems imbuing the shareholder-manager relationship, and these problems’ normative implications, bears critical challenges for the advocates of shareholder primacy.

As a theoretical matter, this analysis exposes the problem of short-termism that arises from strengthening the shareholders’ power of removal (and, more generally, from increasing shareholders’ governance rights) to be much more pervasive than recognized by shareholder advocates. Indeed, short-termism is not just the result of the pressure of *some* shareholders with excessive discounting preferences. It is, instead, the ultimate consequence of a causal chain that starts with adverse selection and asset pricing inefficiencies—that is, market imperfections that affect *all* shareholders as a matter of course.

Further, as a practical matter, the changes that have occurred in corporate governance in the past fifteen years—from the rise of hedge funds to the decline in the use and effectiveness of defensive measures¹⁶²—suggest that the problem of short-termism might be as severe as ever today. Indeed, the increased ability shareholders have acquired to throw incumbents out of office at any time, combined with the increased growing importance of intangible assets and private managerial information, make it more likely that today’s managers may develop short-termist incentives. Recent evidence that U.S. corporations are increasingly curbing long-term investments in favor of short-term “liquidity events,” such as more frequent dividend payouts and stock buybacks,¹⁶³ is thus hardly surprising, although not less troubling.

161. See *infra* Appendix Section D.

162. See *supra* Part I.B (exploring the timeline of the rise of empowered shareholders from the late 1970s until today).

163. Since the 1990s, for example, U.S. nonfinancial corporations have dis-

Nonetheless, a shareholder advocate could respond that this Article's conclusion about the inefficiency engendered by the increased shareholders' ability to promptly remove managers (or otherwise exert pressure on incumbents) does not necessarily make the shareholder primacy model less desirable than the traditional board primacy model.

This argument would go as follows. First, this Article's discussion of the information problems imbuing the shareholder-manager relationship does not challenge the argument that shareholders should enjoy an effective power of removal. Rather it defends the merits of time-consistent removal decisions against the inefficiency of short-term removal decisions. Second, this Article's analysis has so far largely proceeded on the classic principal-agent model assumption that the shareholder-manager relationship can be represented as a bilateral relationship, therefore abstracting from the role of the board of directors.¹⁶⁴ Once this role is factored in, however, it might create complexities for the exercise of time-consistent removal decisions, unless shareholder authority over the corporate affairs has teeth.

As explained in Part I, under the traditional board-centric model, decisions on managerial termination belong to the board, although shareholders are granted the right to remove board members and, then, also incumbent managers. This means, in practice, that if the shareholders' right to remove board members is not effective—as shareholders advocates argue is the case when the board can adopt defensive measures or is otherwise protected by shareholder pressure—the board will

gorged \$50 to \$200 billion more in cash annually to shareholders through repurchase programs than they have raised through the issue of new shares. See Lynn A. Stout, *The Corporation as Time Machine: Intergenerational Equity, Intergenerational Efficiency, and the Corporate Form*, 38 SEATTLE U. L. REV. 685, 718–19 (2015). Standard & Poor's also recently reported that dividends and stock buybacks in the United States totaled a record of more than \$900 billion in 2014. See Martin Lipton et al., *Some Thoughts for Boards of Directors in 2016*, HARV. L. SCH. F. ON CORP. GOVERNANCE & FIN. REG. (Dec. 9, 2015), <https://corpgov.law.harvard.edu/2015/12/09/some-thoughts-for-boards-of-directors-in-2016>. Similarly, a study from the Roosevelt Institute reported that “between the second half of 2009 through 2013, corporations borrowed nearly \$900 billion, but paid out \$740 billion to shareholders, while investing only \$400 billion.” John C. Coffee, Jr. & Darius Palia, *The Wolf at the Door: The Impact of Hedge Fund Activism on Corporate Governance* 59–60 (Columbia Law Sch., Ctr. for Law & Econ., Working Paper No. 521, 2015), http://papers.ssrn.com/sol3/papers2.cfm?abstract_id=2656325.

164. See *supra* text accompanying note 112.

hold exclusive decision-making power over managerial removal decisions. According to shareholder advocates, this poses a major risk for efficient corporate governance, as potentially captured boards could not be trusted when it comes to evaluating managerial accountability.¹⁶⁵ Therefore, a shareholder advocate would conclude that a shareholder primacy model should still be preferred to a board-centric model, although plausibly conceding that this model would need to be modified so to ensure that shareholders commit to the longer-term evaluation of directorial and managerial decisions. Under this modified version of shareholder primacy, shareholders would still retain an effective power of removal that cannot be trumped by board authority, but commit to exercise that power only in the longer term.

Although this Article shares the premises of this argument—about preserving the effectiveness of the shareholders' removal power and incorporating the role of the board of directors—it submits that such an argument neglects to consider a crucial factor: the inability of shareholders to credibly commit to a time-consistent removal regime. As discussed earlier, a limited commitment problem is the result of the tension that arises in any dynamic relationship involving asymmetric information and a temporal lag between the undertaking of the agent's actions and the full realization of those actions.¹⁶⁶ In this information environment, parties have incentives to eliminate the efficiency losses that may arise *ex post* over the development of the relationship. Yet, acting in this way may undermine initial, *ex ante* attempts at implementing efficient transactional structures, ultimately leading to even greater efficiency losses.

In the corporate context, rational shareholders can be expected to *ex ante* understand that a commitment to the longer-term evaluation of directorial and managerial actions serves their interest, as it facilitates the moral hazard-adverse selection tradeoff. However, *ex post*—that is, upon observing a disappointing short-term outcome—they are unable to remain faithful to that commitment. Because bad managers are more likely to be associated with disappointing firm outcomes and good managers tend to be unable to send signals supported by

165. See *supra* text accompanying notes 53–55 (discussing shareholder advocates' concerns about the accountability of boards and their ability to further shareholder interests).

166. See *supra* text accompanying notes 127–30.

hard (i.e., verifiable) information in the short-term, shareholders will rationally believe there is a high probability that the manager is bad (and the board is captured) upon observing a short-term low stock price.¹⁶⁷ As a result, in the attempt to limit the efficiency losses engendered by adverse selection, shareholders will make the rational decision of removing incumbents. And herein lies the problem: anticipating that the shareholders' commitment to time-consistent removal decisions is not binding in case of early failure and that specific long-term projects are more likely to trigger such failure, managers will engage in strategic signaling, causing shareholders even greater efficiency losses.¹⁶⁸

Examined against the shareholders' limited commitment problem, the search for a governance model that can facilitate time-consistent removal decisions moves in a different direction. As explained next, this direction starts with a novel understanding of the role served by the board of directors, which neither coincides with the vicious board depicted by shareholder advocates, nor the virtuous one defended by board advocates.

C. VIRTUES AND VICES OF BIASED BOARDS

Shareholder advocates see board capture as the major obstacle to effective managerial accountability and hence claim that enhancing the shareholders' power of removal is necessary to ensure this accountability. On the polar opposite side, board advocates defend board authority as necessary to preserve the board's informational advantage about private managerial in-

167. See *infra* Appendix Section C (analyzing strategic signaling of managers); see also Fama, *supra* note 71.

168. Nevertheless, it could still be argued that while a market-driven shareholders' commitment to time-consistent removal decisions is not credible, a formal contractual commitment would be credible. Yet, this solution is unlikely to be feasible, as it would require *all* of a firm's shareholders to contractually undertake not to exercise removal until the long term. Otherwise, the ability of just one shareholder to exercise its removal power in the short term would make the other shareholders' "commitment contract" useless to reduce the likelihood of strategic signaling. Multilateral bargaining of this kind, however, seems unlikely to succeed in the context of the well-known collective action problems affecting shareholders. It could be further argued, however, that under current patterns of increased ownership re-concentration, in some cases the number of investors might be relatively low, which would facilitate cooperative investor behavior. Yet, even assuming that a firm's *existing* shareholders could successfully agree to a commitment contract, this would not solve the problem of *future* shareholders, which should also be necessarily bound by such a contract.

formation and, thereby, reduce the risk of short-termism. Thus, under this Article's terms, if shareholder advocates conceive of board authority as the major source of the risk that a bad manager may not be removed when it would be efficient doing so, board advocates defend the board as being better positioned to avoid the mistaken removal of a good manager.

As discussed earlier, however, shareholder advocates claim that in today's corporate environment—where boards have come to include a large majority of independent directors and investors have gained increased sophistication—the argument of the board's informational advantage about private managerial information has lost much of its force.¹⁶⁹ This Article recognizes that this claim cannot be dismissed as unfounded. At the same time, however, this claim should not be held universally valid, as one cannot radically exclude that the insider position of board members may give them an informational advantage over outside investors. More importantly, even assuming that the board had no informational advantage at all, this Article defends a stronger reason for expecting a board to be less likely to mistakenly remove a good manager. This reason is the bias a board of directors is likely to have toward retaining incumbent management.

A board's bias toward incumbent managers can be thought of as stemming from the very same reasons that, according to shareholder advocates, promote board capture: the bonds of interest, collegiality and affinity that are likely to develop over time between managers and board members. These advocates draw drastic consequences from these bonds, suggesting that capture would make directors largely subservient to management and incapable of providing efficient incentives.¹⁷⁰ This Article, as discussed earlier, rejects this claim.¹⁷¹ Nevertheless, it recognizes that the existence of these bonds might induce a board to be more tolerant than outside investors in evaluating managerial performance. Current board appointment rules emphasizing independency requirements are likely to add to a board's bias, as the time constraints and expertise limitations affecting the participation of independent directors can be ex-

169. See *supra* text accompanying notes 99–05.

170. See *supra* text accompanying notes 53–55 (discussing the shareholder concerns about board capture).

171. See *supra* Part II.C.2. (discussing how the claim of board capture seems to be both theoretically and empirically unfounded).

pected to play in favor of a greater deference to incumbent management.

Given the likelihood that a board might be biased in favor of incumbent managers, when the removal decision exclusively belongs to the board—as it occurs, in practice, when the board is protected from removal through the adoption of defensive measures—it will be less likely that a disappointing short-term firm outcome may trigger managerial removal.¹⁷² A further modification of the illustration introduced in Part II.A is useful to show this conclusion more analytically. To this end, let us modify the illustration's assumptions so as to pose that the board of directors, rather than the shareholders, holds decision-making power over managerial removal. Let us also introduce a measure of bias, β , which is designed to capture the distortion from the perfect Bayesian updating that one can expect to see when the removal decision is exclusively delegated to the board.¹⁷³ Under this bias, the board can be assumed to assess its posterior based on the observed payoff realization only with probability $1-\beta$, meaning that with probability β the board will believe the manager to be Good even upon the realization of a disappointing firm outcome.

Under these assumptions, and posing, as above, that the board observes a zero payoff at the end of the short term, the board will consider the manager to be Good with probability $\beta \times 1 + (1-\beta) \times 0.471$, where 0.471 (i.e., 47.1%) is the likelihood that the shareholders would believe a manager to be Good under the same circumstances.¹⁷⁴ Now, posing that the board is only slightly biased, so that it can be assumed that $\beta=0.2$, this implies that the board will consider the manager to be Good with a probability of 57.7%. Therefore, because the board's posterior suggests that the manager is more likely to be Good than Bad, the board will arguably not remove the manager—as the shareholders would, instead, most likely do under the same circumstances (given the lower 47.1% probability with which they would hold the manager to be Good).

However, while this Article shares the board advocates' claim that the board of directors is better positioned than shareholders to avoid the mistaken removal of a good manager,

172. Note that whether a board is biased in good or bad faith does not change the conclusion that a board is less likely than shareholders to remove a manager upon a low short-term outcome.

173. See *supra* Part III.C.

174. For more mathematical explanations, see *infra* Appendix Section E.

it does not share the conclusion that this makes a governance model with perpetually exclusive board authority normatively desirable. The rationale for rejecting this conclusion is that a board's bias toward incumbent management might grow excessive in the longer term. Indeed, the same reasons that make a board less likely to remove a good manager in the short term may produce countervailing effects in the longer term, making a board similarly less likely to efficiently remove a bad manager. In other words, as shown in this Article's Appendix Section E, a board could fail to remove a manager even after observing two consecutive zero payoffs at the end of the medium term, when removing the manager would be the efficient decision to make.¹⁷⁵

D. STRONG BOARDS, STRONG SHAREHOLDERS

The discussion in Parts IV.A and IV.B above has exposed the limits of both the shareholder primacy model and the board primacy model in implementing a regime of time-consistent removal decisions. Shareholder primacy, on the one hand, fails to address the limited commitment problem that affects shareholders. It is therefore incapable of avoiding the risk of inefficient removal of good managers and, hence, the risk of strategic managerial signaling—raising serious short-termist concerns. Board primacy, on the other hand, reduces these concerns, but fails to ensure the efficient removal of bad managers—failing to mitigate adverse selection issues.

Against this analytical background, this Article argues on behalf of a competing governance model with stronger board authority in the short term and enhanced shareholder governance rights—including an unconstrained power of removal—in the longer term.

In the short term, stronger board authority—such as the authority a board is likely to gain through the adoption of defensive measures—ensures that a board retains exclusive decision-making power over managerial removal decision. This means that the board can be assumed to exercise its decision-making power without being exposed to shareholder retribution for making what may be perceived as a “wrong” decision or otherwise being subject to shareholder pressure. Under these circumstances, as explained above, a board of directors will likely

175. See *infra* Appendix Section E (comparing different outcomes between beneficial and excessive board biases).

exhibit a bias toward tolerating the occurrence of disappointing firm outcomes. In contrast to what is argued by shareholders advocates, this bias can be expected to serve a positive function in light of the moral hazard-adverse selection tradeoff and the shareholders' limited commitment problem. It does so by providing a commitment device against the likelihood of inefficient short-term removal decisions by the shareholders, offering an institutional remedy to the shareholders' inability to credibly commit to the longer-term evaluation of managerial actions and types.¹⁷⁶

In this sense, a "biased board" that is protected by short-term market pressure provides shareholders with what philosopher Jon Elster refers to as a "form of *rationality over time*."¹⁷⁷ As explained by Elster, in situations where an individual anticipates that she will choose an undesirable future course of action unless prevented from doing so, it may be in the individual's interest to adopt precautionary measures that limit her ability to make that choice in the future, or at least make that choice less likely.¹⁷⁸ In the same way, granting the board of directors exclusive short-term authority over managerial removal decisions allows shareholders to achieve more than they could otherwise achieve if they were free to exercise their removal power at any time.

In the longer term, however, on the one hand, a board's bias might grow excessive, meaning that a biased, insulated board is more likely to inefficiently avoid removing a bad manager. On the other hand, market prices are more likely to provide reliable guidance for the efficient exercise of the shareholders' removal power.¹⁷⁹ Therefore, a board's exclusive

176. Corporations with a controlling shareholder represent an important exception. See Cremers & Sepe, *supra* note 27, at 125. In general, controlling shareholders can more accurately assess managerial performance, as they tend to have better access to information, partly because they often hold board seats (directly or through a representative). See *id.* Further, controlling shareholders are also more likely to be subject to reputational sanctions if they default on a prior commitment, especially if they serve as a firm's directors. See *id.* This suggests the use of dual-class stock might be a viable alternative to the use of defensive measures to protect a firm's commitment to long-term value creation. See Zoran Goshen & Assaf Hamdani, *Corporate Control and Idiosyncratic Vision*, 125 YALE L.J. 560, 565–67, 576–86 (2016) (claiming that entrepreneurs value corporate control because it allows them to pursue long-term business visions).

177. See JON ELSTER, ULYSSES UNBOUND 5 (2000).

178. See *id.*

179. See *supra* Part III.B (discussing the informational limitations of stock

authority over managerial removal decisions should be relaxed in favor of greater shareholder authority. In practice, in the longer term a board should not be insulated from shareholder pressure nor the shareholders' removal power be limited by the adoption of defensive measures or any procedural hurdles.

V. POLICY IMPLICATIONS

This Part presents the principal policy implications of this Article's novel theory of the optimal allocation of power between boards and shareholders and suggests directions of change that should be taken due to these implications. It does so against the background of the recent changes occurring both in legal rules and market practices that have contributed to shift corporate power from boards to shareholders.¹⁸⁰ These changes have rewarded the long-standing efforts of shareholder advocates to strengthen shareholder governance rights in the conviction that such a transformation would increase directorial and managerial accountability.

Reexamined through this Article's analytical perspective, enhanced shareholder power addresses the risk that boards insulated from shareholder discipline can be inefficiently biased toward retaining incumbent managers. What shareholder advocates do not consider, however, is that in the short term, a biased, insulated board serves the very interests of shareholders, as it puts in place a commitment to time-consistent removal decisions that shareholders themselves are unable to provide due to their limited commitment problem.

Because of the gains made by shareholder advocates, however, today's boards have grown less able to gain protection from short-term shareholder pressure. Most notably, defensive measures such as staggered boards and poison pills have become less effective in the current corporate landscape of increased shareholder activism, as activists have gained the ability to coerce boards to approve the dismissal of such defenses or otherwise sneak past these protections.¹⁸¹ The result, as outlined earlier, is that U.S. corporations are worryingly moving toward short-termist shareholder gains.¹⁸² This is consistent with this Article's theoretical prediction that the ultimate cost

prices in the short term).

180. *See supra* Part I.B.

181. *See supra* text accompanying notes 84–90.

182. *See supra* note 163.

of an indiscriminate extension of shareholder rights is inefficient project selection at the equilibrium, which may present a systematic threat to sustainable firm growth.¹⁸³ To remedy this status of affairs, this Part outline measures designed to re-empower boards to limit short-term shareholder interference in managerial accountability decisions and, more generally, the corporate affairs.

On the other hand, what is missing from current defenses of board authority by board advocates is the recognition that exclusive board authority might become detrimental to firm and shareholder interests in the longer term, as a board's bias might grow excessive.¹⁸⁴ In response, this Part also argues that defensive measures should have a "finite" rather than a "perpetual" life. This means that such measures should be designed so to automatically expire as a corporation's business cycle transitions from the short to the long term, unless the board is able to secure shareholders' approval for extending the use of such measures to an additional period of time.

After discussing the directions of change counseled by this Article's novel theory of board and shareholder power, this Part concludes with an assessment of the means through which such changes should be implemented. It does so by exploring the potential for a coordinated private ordering response by U.S. boards and institutional investors, accompanied by accommodating changes in the Delaware courts' approach to the use of board defenses.

A. DIRECTIONS OF CHANGE

1. Short-Term and Long-Term Defined

So far, this Article has not yet defined the line between short and long term. Indications coming from the real corporate world suggest that, as a general reference point, the short-term horizon should correspond to the three-year span following the appointment of a new CEO—a point in time that can be assumed to coincide with the beginning of a new business cycle.

183. See Part II.

184. Even assuming that a board's ability to commit a corporation to the longer-term evaluation of managerial actions rests on the informational advantage, rather than the bias, of directors, one should acknowledge that such advantage is likely to reduce over time, as market prices can be expected to more accurately reflect private managerial information.

Among others, this proposal is consistent with the recommendations that have come from several corporate actors—including institutional investors—to address the risk of short-termist activist interventions. Pursuant to such recommendations, the tax code should be amended so to qualify an investment as long term—and, hence, as entitled to benefit from advantageous tax treatments—only if it lasts for a minimum period of three years, rather than the existing one-year period.¹⁸⁵ A triennial term also is the common standard for board members serving on a staggered board.¹⁸⁶ Further, if one considers that the average CEO's tenure is about seven years¹⁸⁷ and the average director tenure is about eight years,¹⁸⁸ identifying the short term with a horizon of three years seems consistent with majoritarian market practices.

There are, however, two caveats to this general indication. First, the three-year short-term horizon should be interpreted with some degree of flexibility. In fact, within the parameters indicated by majoritarian market practices, the determination of the exact extension of the short-term horizon should be left to individual firms, in order to avoid that a bright-line rule may fail to accurately reflect firm-specific circumstances.

Second, the general principle that a board—and hence management—should be protected by shareholder interference

185. In a letter sent to the CEOs of 500 of the nation's largest companies in April 2015, Laurence Fink, the CEO of BlackRock—currently the largest asset manager in the world, overseeing over four trillion dollars of investments—expressed concerns for short-termist activist intervention, while also advancing the proposal described in the text as a possible remedy. See Andrew Ross Sorkin, *BlackRock's Chief, Laurence Fink, Urges Other C.E.O.s To Stop Being So Nice to Investors*, N.Y. TIMES (Apr. 13, 2015), http://www.nytimes.com/2015/04/14/business/dealbook/blackrocks-chief-laurence-fink-urges-other-ceos-to-stop-being-so-nice-to-investors.html?_r=0. Similar proposals have also come from academics, international think tanks, institutional investors and even political circles. See, e.g., ASPEN INST., OVERCOMING SHORT-TERMISM: A CALL FOR A MORE RESPONSIBLE APPROACH TO INVESTMENT AND BUSINESS MANAGEMENT 3 (2009), http://assests.aspeninstitute.org/content/uploads/files/content/docs/bsp/overcome_short_state0909.pdf; Coffee, Jr. & Palia, *supra* note 163, at 10 (noting that presidential candidate Hillary Clinton advanced a proposal along similar lines); Joseph E. Stiglitz, *Using Tax Policy To Curb Speculative Short-term Trading*, 3 J. FIN. SERV. RES. 101, 109 (1989). These recommendations share the common view that amending the tax code in this way would introduce a beneficial form of Pigouvian taxation, deterring “hit-and-run” activists.

186. See Cremers & Sepe, *supra* note 27, at 77.

187. See *supra* note 113.

188. See David A. Katz & Laura A. McIntosh, *Renewed Focus on Corporate Director Tenure*, N.Y.L.J. (May 22, 2014).

for the first three years of a CEO's tenure does not imply that after this initial time span, a board could no longer, for example, adopt any defensive measures, regardless of the duration of its mandate. This would be inconsistent with the actuality that the same CEO and board members tend to develop multiple investment cycles during their tenures. After the initial three-year term, however, a board would need to submit proposals for extended protection to a binding shareholder vote, substantially giving shareholders a binding "say on corporate governance."¹⁸⁹ This mechanism would mitigate the risk that a board might opportunistically exploit extended protection to camouflage a real failure for a longer-than-expected "early failure." At the same time, it would enable a board to benefit from extended protection if directors can persuade shareholders that such protection serves their interests.

Finally, as to the risk that exclusive board authority in the short term might prevent shareholders from promptly addressing cases where a manager is patently "bad" or is clearly engaging in moral hazard, such a risk should not be overstated. Indeed, the remedy of removal for cause¹⁹⁰ and fiduciary rules would remain available to shareholders to respond to similar outrageous cases.

2. Higher-Order Constraints and Finite Board Protection

In the political context, constitutional constraints that restrain options available to a polity are often described "as enabling rather than constraining, that is, as devices not only for limiting government, but also for facilitating the difficult process of self-government."¹⁹¹ When one applies this view to corporate governance, placing restrictions on the removal of managers in the short-term serves a constructive governance function, as it avoids that shareholder may rely on uninformative short-term share prices in deciding whether or not to discipline managers.

189. Granting shareholders a long-term binding say on corporate governance is consistent with recent empirical evidence documenting that "bilateral" defensive measures that require shareholder approval are associated with increased firm value over time, while defensive measures that can be unilaterally adopted by the board are associated with reduced long-term firm value. See Cremers et al., *supra* note 82, at 732–34.

190. See *supra* note 50.

191. See Cass Sunstein, *Constitutionalism and Secession*, 58 U. CHI. L. REV. 633, 635, 639–42 (1991) (discussing the benefits of constitutional provisions excluding the right to secede).

Political theory, however, also points out that commitment strategies work only as long as they are embedded in further restrictions.¹⁹² For what makes a commitment credible, is the level of difficulty encountered in renegeing on that commitment *ex post*.¹⁹³ Thus, without the adoption of higher-level constraints that can prevent subsequent changes to the “rules of the game,” first-level constraints risk being exposed to the same commitment issues that prompted their adoption in their first place. For example, Article V of the U.S. Constitution¹⁹⁴—which subject amendments to the Constitution to the approval of two-thirds of both houses—supplies the means by which constitutional constraints are made meaningful.¹⁹⁵

In the corporate context, the use of defensive measures such as staggered boards and poison pills have historically provided the higher-order constraints to safeguard board authority against the threat of short-term shareholder interference¹⁹⁶ and, with it, the board’s commitment function.¹⁹⁷ With the emergence of the shareholder empowerment movement, how-

192. See ELSTER, *supra* note 177, at 117–18 (explaining that in order to be effective, “precommitment . . . needs to be protected from interference by the current majority”).

193. See Marcel Kahan & Edward B. Rock, *Corporate Constitutionalism: Antitakeover Charter Provisions as Precommitment*, 152 U. PA. L. REV. 473, 517 (2003).

194. U.S. CONST art. V.

195. See STEPHEN HOLMES, *PASSIONS AND CONSTRAINTS* 134–77 (1995) (defending supermajority rules as a means to enable ordinary politics).

196. Until the rise of the hostile takeover in the 1980s, which gave shareholders the ability to remove incumbents through the simple exercise of stock market purchasing power, the likelihood that shareholders could challenge board authority was non-existent. See William W. Bratton, Jr., *The New Economic Theory of the Firm: Critical Perspectives from History*, 41 STAN. L. REV. 1471, 1520–21 (1989). Indeed, under the traditional collective action problems of dispersed investors and the costs raised by the proxy machinery for challengers before the SEC amendments, shareholders had limited ability to exercise their power of removal even upon the realization of disappointing firm outcomes. See Cremers et al., *supra* note 82, at 772–75 (providing empirical evidence). From this perspective, the introduction of defensive measures can be thought of as a new form of higher-order constraint that replaced the inherent constraint provided by the absolute insulation of U.S. boards before the 1980s.

197. Other corporate law scholars have explored the idea that the use of defensive measures may serve as a (pre-)commitment device. These scholars, however, have restricted their attention to the benefits that defensive measures may deliver during a takeover context by increasing a board’s bargaining power and thus shareholders’ expected returns. See Kahan & Rock, *supra* note 193, at 484 & n.32 (quoting other studies discussing the benefits of enhanced board power within the takeover context).

ever, these defenses have grown increasingly less effective as higher-order constraints. In response, similar to the functions served by supermajority requirements in the constitutional context, this Article suggests that a charter provision requiring the approval of a supermajority—two-thirds or more—of the shareholders for the dismissal of defensive tactics would be beneficial. This provision would help restore the effectiveness of defensive tactics against activist interventions and, with it, the “security of expectations”¹⁹⁸ such measures provide as higher-order constraints protecting a board’s commitment function. On the other hand, in order not to jeopardize the efficient exercise of shareholder discipline in the longer term, a board’s defenses should be designed to have a finite three-year life unless shareholders approve their extension for a subsequent period.

Illustrating how these changes would redefine the way in which poison pills and staggered boards are designed is useful to add concreteness to this policy proposal. In the case of poison pills, a board can unilaterally adopt “on the shelf” (i.e., inactive but ready to use) pills for use at any time if a threat materializes.¹⁹⁹ This raises concerns that directors might be granted time-inconsistent protection through a pill as a board might use this defense opportunistically to gain potentially perpetual protection from shareholder discipline. In order to address this risk, changes should be introduced in the way pills are drafted so to provide for the adoption of pills with a finite life of three years.

During this period, a pill should be removable only upon the approval by two-thirds (or more) of the firm’s shareholders in addition to board’s approval. This would help mitigate the additional risk that a pill’s protection might be ineffective faced with the ability acquired by activists to coerce the board’s approval of the dismissal of a pill. After this three-year period, the pill should automatically expire, unless it is removed earlier through a supermajority vote or the board is able to secure shareholder approval to extend the pill’s use for a further period. Unlike in the case of an active pill adopted for longer periods or on the shelf pills without a time limit, this mechanism would mitigate the risk that a board could opportunistically exploit the pill for undue longer-term protection.

198. Cf. MELISSA SCHWARTZBERG, COUNTING THE MANY: THE ORIGINS AND LIMITS OF SUPERMAJORITY RULE 9 (2014) (noting that modern supermajority rules are primarily regarded as a means to protect a polity’s institutional stability).

199. See Gill et al., *supra* note 89, at 169–70.

In the case of a staggered board, the provision of a supermajority requirement would also ensure that proposals to destagger the board receive overwhelming approval by the shareholders in addition to receiving board approval.²⁰⁰ Similar to the case of poison pills, this feature would be useful to neutralize the increased ability of activists to coerce board approval to destaggering. Consistent with this theoretical prediction, the evidence on precatory activist proposals to destagger the board indicates that while these proposals are generally successful, they tend to fail when a corporation has adopted a supermajority requirement for board destaggering.²⁰¹

As to the tools designed to ensure that a staggered board has a finite rather than perpetual life, some additional clarifications are in order. First, unlike a poison pill, the adoption of a staggered board generally requires shareholder approval.²⁰² This is an important difference as it enables shareholders to veto the adoption of a staggered board should they deem this arrangement detrimental to their interest. Second, unlike the potentially perpetual protection provided by a pill, a staggered board provides each class of directors with protection for a limited period of three years. Third, absent a supermajority requirement and the simultaneous presence of a pill, a staggered board only delays but does not impede the exercise of voting control.²⁰³ Considering these specific features of staggered boards, this Article argues that under the regime it proposes, it would be sufficient to provide for the automatic expiration of the supermajority requirement for destaggering, rather than that of the staggered board itself, after the three-year short-term period.²⁰⁴

200. This proposal would be politically feasible as some U.S. states have already adopted a similar regime for the removal of staggered boards. *See, e.g.*, MASS. GEN. LAWS ch. 156D, § 8.06(b)–(g) (2016).

201. *See generally* S'HOLDER RIGHTS PROJECT, THE SHAREHOLDER RIGHTS PROJECT 2012 REPORT (2012), <http://www.srp.law.harvard.edu/releases/SRP-2012-Annual-Report.pdf> (providing evidence on the precatory proposals filed by the activist investors that were represented by the Harvard Shareholder Rights Project).

202. In Delaware, and most other states, shareholder approval is required to adopt a staggered board after the initial charter or bylaws are in place. *See, e.g.*, DEL. CODE ANN. tit. 8, § 141(d) (2016). The notable exception is Maryland, where the board has unilateral power to adopt a staggered board. MD. CODE ANN., CORPS. & ASS'NS § 3-803 (West 2016).

203. *See* Bebchuk et al., *supra* note 58, at 903–04 (discussing the limited deterrent effect of a staggered board before the pill's invention).

204. As an alternative to achieve the same result, the current annual elec-

Further, following the same logic underpinning the proposed introduction of supermajority requirements for the dismissal of board defenses, an additional beneficial measure would be a corporation's statutory choice to opt for plurality voting rather than majority voting in the election of board members. As discussed earlier, majority voting is one of the most potent weapons in the arsenal of activists' governance levers.²⁰⁵ And activists have increasingly used majority voting to threaten engaging in withholding campaigns against incumbents in order to obtain desired governance changes including the removal of board defenses.²⁰⁶ Moving back to a regime of plurality voting would thus help expropriate activists of this powerful bargaining lever, correspondingly reinforcing the effectiveness of board defenses as higher-order constraints. Yet, in order to avoid the risk that moving back to this regime helps a board to gain perpetual protection, plurality voting should also be designed to have a finite life of three years. This means that after this period, plurality voting should automatically be replaced by majority voting unless the board can gain shareholder approval to extend the use of plurality voting to an additional period of time.

B. MEANS OF CHANGE

The above discussion has illustrated the directions and the tools that would help to transition to a regime of time-consistent removal decisions. However, it has not addressed the question of *how* the proposed changes should be implemented.

tion default of board members could be replaced by a triennial election default. Such a proposal has been advanced by corporate scholars and shares motivations of time-consistency in the evaluation of managerial actions that are similar to those exposed in this Article. *See, e.g.*, William T. Allen et al., *The Great Takeover Debate: A Meditation on Bridging the Conceptual Divide*, 69 U. CHI. L. REV. 1067, 1073 (2002) (proposing triennial board elections); Martin Lipton & Steven A. Rosenblum, *A New System of Corporate Governance: The Quinquennial Election of Directors*, 58 U. CHI. L. REV. 187, 225–30 (1991) (proposing quinquennial board elections). Further, pluriennial board terms are also the norm in several foreign jurisdictions. *See* Enriques et al., *supra* note 50, at 61. However, a triennial board term would arguably be less politically feasible than this Article's proposal for a supermajority requirement for destaggering as it would require a modification of state legislation on top of other hurdles.

205. *See supra* notes 80–81 and accompanying text.

206. *See, e.g.*, Leo E. Strine, Jr., *Toward Common Sense and Common Ground? Reflections on the Shared Interests of Managers and Labor in a More Rational System of Corporate Governance*, 33 J. CORP. L. 1, 11–12 (2007).

Theoretically, statutory implementation of these changes could be the most effective solution. In practice, however, the political hurdles affecting this route make it most likely unfeasible.²⁰⁷ Further, a similar reform intervention could end up forcing an unnecessary one-size-fits-all approach. This Article thus submits that a private ordering response, accompanied by accommodating changes in the Delaware courts' approach to the use of board defenses, would be the most feasible route to improve corporate governance practices.

An immediate objection to this claim is the classic "Panglossian argument" under which the market is assumed to always move in the direction of efficient outcomes.²⁰⁸ Thus, if the governance arrangements this Article advocates really benefitted non-arbitrageur shareholders, one should already observe these arrangements in the real corporate world or, at least, some attempts at reforming corporate governance practices along those lines.

To the point, it is noteworthy that there have been recent signs that a demand for recalibrating corporate governance arrangements toward a time-consistent direction seems to be emerging among heavyweight shareholders such as institutional investors. Breaking old patterns at various times during 2015, major institutional investors issued statements that they would support the long-term plans of companies against activist attacks, and they would withhold support of activists who primarily seek to force companies into share buybacks and extraordinary distributions.²⁰⁹ Institutional investors also seem to

207. For the statutory implementation of this Article's proposed changes to be effective, the laws of each state should be consistently amended. Otherwise, reincorporation into another state could provide an easy way to escape the new set of rules. Further, in the specific case of Delaware, one should also lobby for mandatory solutions. Otherwise, because Delaware law is structured such that it mostly provides defaults, corporations could easily opt out of the new rules. This route would not only be more politically complicated, but also likely undesirable from a broader efficiency perspective. Last, successfully lobbying Congress to introduce changes at the federal level would be even harder.

208. See Bebchuk, *supra* note 53, at 888. Panglossian claims, however, have been criticized as reflecting an overly optimistic view of market achievements. See Lucian Arye Bebchuk, *Why Firms Adopt Antitakeover Arrangements*, 152 U. PA. L. REV. 713, 728 (2003).

209. See Sorkin, *supra* note 185 (discussing the short-termist concerns expressed by Larry Fink, the CEO of BlackRock). Statements of similar tone and content have also recently come from F. William McNabb III, Chairman and CEO of Vanguard, another of the biggest players in the institutional investor landscape, and Anne Simpson, director of corporate governance and a senior

be following through on their statements about protecting incumbent boards from short-termist activist interventions as they have begun to vote against these interventions and in favor of incumbents.²¹⁰

These recent events add concreteness to this Article's call for a private ordering solution to reform corporate governance practices, indicating that such a solution could be cooperatively carried out by U.S. boards and institutional investors. Importantly, under this solution, this Article's proposed changes should be interpreted as exemplificative, rather than exhaustive, as the specific configuration of a corporation's time-consistent defenses, the exact determination of both short-term versus long-term horizons, as well as the mechanisms of finite duration of a board's defenses would be ultimately left to these parties' contracting. A private ordering response of this kind also seems consistent with the statements soliciting increased cooperation with U.S. CEOs and boards of directors that have come from institutional investors and prominent corporate lawyers during the past year and a half.²¹¹

In addition to being politically feasible, this solution would offer the advantage of empowering market actors with the necessary freedom to devise fine-tuned arrangements that can cater to the specific needs of individual corporations. Nevertheless, it would face two potential challenges. The first is the still dominant idea in the U.S. legal academy that what needs to be done to recalibrate the system cannot involve "insulating management[] from shareholder accountability."²¹² This view is largely a product of the vilification of board insulation brought about by shareholder advocates and proxy advisors²¹³ on the assumption that any form of incumbent protection from removal is merely a reflection of managerial moral hazard. However, as

portfolio manager of CalPERS, the nation's largest pension fund by assets. See Lipton et al., *supra* note 163.

210. Most notably, in May 2015, Blackrock, State Street, and Vanguard sided with DuPont in its proxy fight against activist hedge fund Trian Fund, offering the company decisive support. See Justin Lahart, *Why Peltz Didn't Have Icahn's Apple Touch*, WALL ST. J., May 23, 2015, at B14.

211. See, e.g., Martin Lipton, *The New Paradigm for Corporate Governance*, HARV. L. SCH. F. ON CORP. GOVERNANCE & FIN. REG. (Feb. 3, 2016), <https://corpgov.law.harvard.edu/2016/02/03/the-new-paradigm-for-corporate-governance>.

212. See Coffee, Jr. & Palia, *supra* note 163, at 85.

213. See Leo E. Strine, Jr., Essay, *Can We Do Better by Ordinary Investors? A Pragmatic Reaction to the Dueling Ideological Mythologists of Corporate Law*, 114 COLUM. L. REV. 449, 450–51 (2014).

this Article has demonstrated, this assumption is grounded on a theoretically incomplete account of the information problems imbuing the shareholder-manager relationship and should thus be discarded.

The second challenge is whether enhancing the force of current defensive measures would raise issues under the common law of Delaware as the state where most U.S. corporations are incorporated. Under the *Unocal* standards applied by Delaware courts, these measures need to be both reasonable responses to a cognizable threat²¹⁴ and proportional to such a threat, meaning that the defensive action cannot be “draconian, by being either preclusive or coercive.”²¹⁵ Further, if a defensive tactic has the “primary purpose” of interfering with or impeding the effective exercise of a shareholder vote,²¹⁶ it is also required per *Blasius* to have a “compelling justification.”²¹⁷

Under *Unocal*, a first potential problem could be represented by the fact that this Article’s policy proposal conceives of a board’s defenses more as prospective than as responsive to a current threat. However, under the broad interpretation that has been given to *Unocal*’s reasonableness test, this concern does not seem particularly severe. First, Delaware courts have in general validated the use of prospective defensive tactics.²¹⁸ Further, as made evident most recently in the 2014 case of *Third Point LLC v. Ruprecht*, the threat of “creeping control” (or “negative control”)—the ability to exercise disproportionate influence over major corporate decisions—is sufficient to consti-

214. *Unocal Corp. v. Mesa Petroleum Co.*, 493 A.2d 946, 954–55 (Del. 1985). This first prong of the *Unocal* standard “is essentially a process-based review,” requiring directors to demonstrate that they acted in good faith and after a reasonable investigation of the threat. *Air Prods. & Chems., Inc. v. Airgas, Inc.*, 16 A.3d 48, 92 (Del. Ch. 2011).

215. *Unitrin, Inc. v. Am. Gen. Corp.*, 651 A.2d 1361, 1367 (Del. 1995). A defense is coercive if it is “aimed at ‘cramming down’ on [the] shareholders a management-sponsored alternative.” *Id.* at 1387. A defense is preclusive when success in a pending proxy contest is “realistically unattainable.” *Selectica, Inc. v. Versata Enters., Inc.*, No. 4241-VCN, 2010 WL 703062, at *20 (Del. Ch. Feb. 26, 2010), *aff’d*, 5 A.3d 586 (Del. 2010).

216. *Blasius Indus., Inc. v. Atlas Corp.*, 564 A.2d 651, 661 (Del. Ch. 1988).

217. *Id.*

218. See *Moran v. Household Int’l, Inc.*, 490 A.2d 1059, 1079 (Del. Ch. 1985) (“Directors who have the responsibility for the governance of the corporation are entitled to formulate a takeover policy, whether it be to meet a specific threat or a general prospective one.”).

tute a cognizable threat justifying the adoption of a defensive measure.²¹⁹

Whether this Article's proposal for strong but finite defensive tactics could fail *Unocal's* proportionality test is more uncertain. While in principle it should not,²²⁰ in practice one cannot exclude that the specific combination and features of the defenses a corporation could use might trigger this test. In response, this Article defends a modification of the triggering elements of *Unocal's* proportionality test under which the focus of judicial review should shift to whether a defense is finite or perpetual. This does not mean that a defense that has been in place longer than three years (or the alternative period of time a company might have selected for short-term board protection) should automatically be found draconian, especially because a board might have gained shareholders' consent for extended protection. It means instead that under this circumstance, the court should then move to verify whether the defense is either coercive or preclusive. Conversely, a defense that has been in place for less than three years (or the alternative period of time a company might have selected for short-term board protection) should automatically pass the proportionality test without the need for a further inquiry into whether the defense is draconian.

Last, Delaware courts are unlikely to evaluate this Article's proposed changes under *Blasius's* "compelling justification" test as its application has been narrowed. In particular, as made more evident in recent cases involving activist attacks—which are the focus of this Article's policy proposal—the courts clarified that poison pills (i.e., the defense potentially more likely to trigger the *Blasius* test) will almost always be assessed

219. No. 9469-VCP, 2014 WL 1922029, at *21 (Del. Ch. May 2, 2014); see also *supra* note 90 (discussing the facts of *Third Point*). It is also worth emphasizing that the court found the intervention by the activist hedge fund Third Point to involve creeping control even if the fund held less than 20% ownership and was not granted any express veto rights. *Id.*

220. The combined adoption of a staggered board and a supermajority requirement for destaggering, for example, neither contains coercive features that have an effect on how shareholder votes are cast nor makes the likelihood of success in a proxy contest "realistically unattainable." See *supra* note 215. Similarly, the adoption of a pill does not by itself trigger the preclusivity standard, as established by the Delaware Supreme Court in 2010 in *Selectica*, 2010 WL 703062, at *21.

under the *Unocal* standard even when they do impact the shareholder vote.²²¹

CONCLUSION

This Article has demonstrated that the persistent debate over the division of power between boards and shareholders has been too narrowly framed. For too long that debate has proceeded on the shared assumptions that moral hazard is *the* information problem to be addressed in the corporate context. Despite adverse selection having long come to play a central role in information economics as perhaps the most pervasive information problem,²²² no attention has been paid to it in the context of the shareholder-manager relationship.

Exploring adverse selection in this context is not just about academic rigor but rather involves issues of descriptive complexity that bear crucial normative implications. As this Article has shown, once one incorporates *both* issues of adverse selection *and* managerial moral hazard, a governance model with stronger board authority in the short term and enhanced shareholders' rights in the longer term emerges as normatively more desirable than either the traditional board-centric model or the competing shareholder primacy model of the corporation.

On the one hand, shareholder advocates fail to recognize that granting the board of directors exclusive authority in the short term provides a beneficial commitment to "time-consistent" removal decisions, which shareholders are otherwise unable to ensure in light of adverse selection and uninformative short-term prices. Market prices may be uninformative in the short term when a firm's investments in specific long-term projects, such as investments in innovation or other intangibles, make prices unable to fully capture the implications of managerial private information until those implications begin to show up in cash flows over time. Under this possibility—which is especially severe today as intangibles have come to represent the bulk of corporate production—economic theory predicts that shareholders would benefit from committing to

221. *Third Point*, 2014 WL 1922029, at *22 (holding that the trigger will be deemed reasonable and will not be deemed to thwart the shareholder franchise as long as a shareholder with an ownership stake up to the trigger level can effectively run a proxy contest).

222. *See supra* note 104.

evaluate managerial decisions in the longer term when prices are more likely to be fully informative.

Yet, faced with adverse selection—the risk of hiring a “bad manager” who does not respond to incentives for optimal project selection—shareholders are unable to credibly commit to time-consistent removal decisions. Conversely, because of the higher likelihood that bad managers might be associated with disappointing firm outcomes and the risk of false matching, shareholders will rationally react to a low short-term firm outcome by exercising their power of removing incumbents although that outcome might in fact be a reflection of uninformative short-term prices. In response, good managers struggling to avoid removal are likely as well to become unresponsive to incentives for optimal project selection and engage in “strategic signaling,” developing a preference for short-termist projects that can improve the shareholders’ perception of their type.

This analytical framework not only exposes short-termism as a much more pervasive problem than recognized by shareholder advocates, but it also reframes board protection as a corrective that mitigates such a problem by “exploiting” a board’s bias toward retaining incumbent management. In light of this bias, a board that is insulated from shareholder discipline—and hence holds exclusive decision-making power on managerial removal decisions—reduces the risk of the inefficient removal of good managers and, hence, short-termism. At the same time, however, board protection might jeopardize optimal project selection if it becomes perpetual. Indeed, as a biased board is less likely to remove a good manager in the short term, so it is less likely to remove a bad manager in the longer term when removal would be the efficient decision to make.

Accordingly, this Article questions the recent rise of shareholder empowerment under which boards of directors have grown increasingly less able to gain protection from short-term shareholder pressure. Mainly, this outcome is due to the decreased effectiveness of defensive measures such as staggered boards and poison pills, as hedge funds and other activists have gained the ability to coerce board approval to dismiss these defenses or otherwise sneak past them. Unsurprisingly—but not less worrisome—the result of these transformative changes is that corporate America is moving away from long-term value creation and toward short-term consumption.

To reverse this trend, and at the same time preserve the long-term benefits of shareholder empowerment, a coordinated

private ordering response by institutional investors and U.S. boards of directors would be the most politically feasible option. This response would include reinstating the limitations to short-term shareholder interference and transforming them into meaningful high-order constraints while also ensuring that these limitations have a finite, rather than perpetual, life. This Article has outlined broad strokes of how to implement such solutions. However, the greatest advantage of opting for a private ordering response would be enabling market actors to devise fine-tuned solutions that can cater to the specific needs of individual corporations.

APPENDIX

This Appendix offers an extended numerical version of the qualitative illustration this Article introduces in Part II.A and then uses throughout the discussion. This extended example draws more heavily on contract theory in order to simultaneously consider the problems of moral hazard and adverse selection to which shareholders are exposed and, thereby, better elucidate the related tradeoff as well as its implications for the optimal allocation of power between boards and shareholders.

A. SETTING AND MAIN ASSUMPTIONS

The example's setting and assumptions are the same as those of the illustration introduced in Part II although the temporal horizon is that of the modified version of the illustration discussed in Part IV.A with three periods: the short term, the medium term, and the long term (at the end of which the company is liquidated). For convenience, Appendix Figure 1 provides a summary description of the projects considered by the example.

Appendix Figure 1: Projects' Description²²³

	Project	Short Term		Medium Term		Long Term		Expected Value	Private Benefit
		Prob.	Payoff	Prob.	Payoff	Prob.	Payoff		
Good Manager 80%	Regular	100%	100	100%	100	40%	250	300	12
	Innovative	80%	100	80%	100	100%	250	410	0
Bad Manager 20%	Bad	10%	100	10%	100	0%	250	20	200

As shown by Appendix Figure 1, the numerical example attributes a value of twelve to the private benefit a Good Manager is expected to receive when she undertakes the Regular Project rather than the Innovative Project.²²⁴ It also assumes that a Bad Manager can extract a private benefit of 200 when pursuing the Bad Project, attempting to capture the fact that the use of reward mechanisms is unhelpful in the case of adverse selection, either because bad types fail to respond to incentives or designing an incentive-compatible contract is too onerous for the principal.²²⁵ Further, the example makes the additional standard assumptions that (i) both shareholders and managers are risk neutral agents and do not discount future gains; (ii) a manager's reservation utility, regardless of her type, is zero; and (iii) managers are protected by limited liability.

223. As clearly shown by Figure 1, because each project delivers the same payoff across the three periods, although with different probabilities, the shareholders can at best have an inference of the manager's type and actions but cannot verify either one. Further, it is also worth emphasizing that under the assumption of risk neutrality, the shareholders are indifferent to receiving a payoff of 250 with probability 40% or a payoff of 100 with certainty. However, if the shareholders received 100 with certainty in the long term (rather than 250 with a 40% probability), they could easily infer that the manager undertook the Regular Project rather than the Innovative Project (which delivers 250 with certainty in the final term). This, however, would contradict the standard assumption that shareholders cannot observe what projects managers undertake.

224. See *supra* text accompanying note 114.

225. See *supra* Part III.B. It is worth emphasizing that the private benefit a Bad Manager extracts from the Bad Project could be even zero if the manager does not respond to incentives for type-related reasons.

B. INCENTIVE COMPENSATION AND ADVERSE SELECTION

For convenience, in using this expanded numerical example to elucidate the consequences that the combination of moral hazard and adverse selection issues produces for the shareholders' optimization problem, let us begin by assuming that the manager population only includes Good Managers. Under this assumption, a prospective manager's incentive compatibility constraint will be satisfied under a compensation contract that grants the manager a 12% equity stake²²⁶ as this compensation scheme makes it individually efficient for the manager to pursue the Innovative Project. Condition 1 below quantifies this circumstance:

$$\begin{aligned} 0.12 \times (0.8 \times 100 + 0.8 \times 100 + 1 \times 250) &\geq \\ 0.12 \times (1 \times 100 + 1 \times 100 + 0.4 \times 250) + 12 &\text{ (1)} \end{aligned}$$

where the left-hand side of Condition (1) represents the manager's expected payoff from pursuing the Innovative Project (49.2) and the right-hand side represents her expected payoff from pursuing the Regular Project (48) under the 12% equity-stake plan. Under this circumstance, the shareholders' expected payoff is then equal to $0.88 \times 410 = 360.8$.

However, once one moves to incorporate adverse selection into the shareholders' optimization problem, offering a prospective manager the above compensation contract no longer ensures the shareholders that the manager will undertake the Innovative Project. This is because in a world where shareholders lack viable mechanisms to separate managerial types *ex ante*,²²⁷ the shareholders will only hire a Good Manager with an 80% probability. With the remaining 20% probability, they will, instead, hire a Bad Manager. This possibility, in turn, reduces the shareholders' expected payoff from the venture from 360.8 to 292.2,²²⁸ where the reduction in expected payoff arises because inducing a Bad Manager to behave is too costly (or otherwise unfeasible) for the shareholders.²²⁹

226. The manager's incentive compatibility constraint would also be satisfied by an 11% equity stake, but selecting a compensation plan with a 12% equity stake helps keep the computations more manageable.

227. *See supra* Part II.C.1.

228. The shareholders' expected payoff in an economy including both Good and Bad Managers is calculated as follows:

$$0.88 \times [0.8 \times (0.8 \times 100 + 0.8 \times 100 + 250) + 0.2 \times (0.1 \times 100 + 0.1 \times 100)] = 292.2.$$

229. In theory, the shareholders could raise monetary incentives to make the contract incentive compatible also for the Bad Manager; however, doing so is likely to be unprofitable to the shareholders. *See supra* Part II.C.2. Indeed, in order to make the undertaking of the Innovative Project individually re-

C. SHORT-TERM REMOVAL AND STRATEGIC SIGNALING

Let us now assume that the shareholders can also remove the manager at the end of the short term as it increasingly tends to be the case in the current corporate scenario with empowered shareholders. For simplicity, the example also assumes that the manager's removal is followed by the company's (anticipated) liquidation.²³⁰ Last, it also poses that removing the manager yields shareholders a legacy value of 160 (i.e., eighty for each hypothetical remaining period),²³¹ consistent with the assumption that the shareholders' power of removal helps to reduce the cost they bear for the hire of a Bad Manager.

Under these assumptions, upon observing a payoff of 100 at the end of the short term, the shareholders will then apply the Bayes' Rule and update their belief on the manager's type so to deem that the manager is Good with a 97% probability (i.e., $(0.8 \times 0.8) / (0.8 \times 0.8 + 0.2 \times 0.1) = 0.97$). Under this belief, they will not remove the manager as their expected continuation payoff (i.e., the overall payoff the shareholders obtain from keeping the manager until the long term)²³² is equal to 281.9,²³³ which is higher than the legacy value of 160.

Conversely, when the shareholders observe a zero payoff at the end of the short term (which may only come from either the Innovative Project or the Bad Project), they will believe there is only a 47.1% $((0.8 \times 0.2) / [(0.8 \times 0.2) + (0.2 \times 0.9)] = 0.471$) chance they are dealing with a Good Manager. Under this posterior, their

warding for the Bad Manager, the shareholders should promise her a compensation percentage (comp. %) that solves the following incentive compatibility constraint: $(\text{comp. \%}) \times (410) \geq (\text{comp. \%}) \times (20) + 200$, which delivers a compensation percent of around 51.3%.

230. In actuality, removal of incumbents will typically be followed by the appointment of new management, but the assumption of liquidation causes no loss of generality in our example.

231. A payoff of eighty per period approximates what the shareholders expect to receive in an economy including both Good Managers and Bad Managers if they provide no equity incentives to the manager and have no removal right. Since under these circumstances a Good Manager would always pursue the Regular Project, the shareholder's expected value would be computed as follows: $[(0.8 \times 300) + (0.2 \times 20)] / 3 = 81.3$.

232. The shareholders' expected continuation payoff is the pooling price at which the company stock is traded. As explained in the text, the pooling price can be high or low depending on whether the investors observe a payoff of 100 or zero at the end of the short term.

233. The shareholders' expected continuation payoff when they believe they are dealing with a Good Manager with probability 97% is determined as follows: $0.88 \times [0.97 \times (0.8 \times 100 + 250) + 0.03 \times (0.1 \times 100)] = 281.9$.

continuation payoff reduces to 141.3,²³⁴ so they will rationally decide to remove the manager.

A Good Manager, however, will anticipate that she will continue to be employed only if the shareholders observe 100 at the end of the short term. This will occur with probability 80% when the manager chooses the Innovative Project while it will occur with certainty if she chooses the safer Regular Project. It is then easy to see that when the shareholders can remove the manager in the short term, the incentives the Good Manager develops for strategic signaling will make pursuing the Innovative Project no longer profitable to her under the 12% equity plan. Indeed, when a Good Manager is exposed to the risk of losing her continuation value (i.e., the payoffs from future employment periods), her incentive compatibility constraint no longer holds, as shown by Condition (2):

$$0.12 \times (0.8 \times 100 + 0.8 \times 0.8 \times 100 + 0.8 \times 250) < \\ 0.12 \times (100 + 100 + 0.4 \times 250) + 12 \quad (2)$$

where the left-hand side of Condition (2) represents the manager's expected payoff from pursuing the Innovative Project (41.3) and the right-hand side represents the manager's payoff from pursuing the Regular Project (48).

Condition (2) then clearly shows that the higher expected cost the manager bears for the risk of losing her continuation value under the Innovative Project (relative to the Regular Project) outweighs the value of the reward she receives when she undertakes that project.²³⁵

234. The shareholders' expected continuation payoff when they believe they are dealing with a Good Manager with probability 47.1% is determined as follows: $0.88 \times [0.471 \times (0.8 \times 100 + 250) + 0.529 \times (0.1 \times 100)] = 141.4$.

235. Choosing the Regular Project is the only Perfect Bayesian equilibrium for the Good Manager when she is exposed to the threat of short-term removal. See generally DREW FUDENBERG & JEAN TIROLE, GAME THEORY 320–24 (1991) (explaining Perfect Bayesian equilibrium). Under these circumstances, the shareholders' expected payoff reduces to 241.9. This amount is calculated as follows:

$$0.88 \times [0.8 \times (100 + 100 + 0.4 \times 250) + 0.2 \times (0.1 \times 100 + 0.1 \times 0.1 \times 100)] \\ + (0.2 \times 0.9 \times 160) = 241.9,$$

where $(0.2 \times 0.9 \times 160)$ is the payoff the shareholders expect to receive when they fire a Bad Manager at the end of the short term with 0.2 being the proportion of Bad Managers, 0.9 being the probability that a Bad Manager taking the Bad Project generates zero payoff at the end of the short term, and 160 being the shareholders' legacy value. It is also worth emphasizing that if one relaxes the example's assumption that the manager is risk-neutral and assumes that she is risk-averse (as might be the case), the manager will have even greater incentives to engage in strategic signaling.

In order for the manager's equity compensation plan to continue to be incentive-compatible when the shareholders can remove the manager at the end of the short term, the shareholders should increase the manager's equity stake to 28%.²³⁶ Such an increase, however, would make the pursuing of the Innovative Project no longer profitable to the shareholders. Under the circumstances the shareholders would only expect to receive 254.1,²³⁷ which is less than the 292.2 they expect to receive when they have no removal power and are thus fully exposed to the problem of adverse selection.²³⁸

236. A compensation plan granting the manager a 28% equity stake satisfies the following incentive compatibility constraint:

$$0.28 \times (0.8 \times 100 + 0.8 \times 0.8 \times 100 + 0.8 \times 250) \geq 0.28 \times (100 + 100 + 0.4 \times 250) + 12.$$

This means that in order for the Good Manager to have the right incentives to undertake the Innovative Project when the shareholders have the right to remove her in the short term, the manager should receive 96.3.

237. Under a compensation plan granting the manager a 28% equity stake, the shareholders expect to receive the following:

$$0.72 \times [0.8 \times (0.8 \times 100 + 0.8 \times 0.8 \times 100 + 0.8 \times 250) + 0.2 \times (0.1 \times 100 + 0.1 \times 0.1 \times 100)] + (0.8 \times 0.2 \times 160) + (0.2 \times 0.9 \times 160) = 254.1,$$

where $(0.8 \times 0.2 \times 160)$ is the payoff the shareholders expect to receive when they fire a Good Manager at the end of the short term, with 0.8 being the proportion of Good Managers, 0.2 being the probability that a Good Manager taking the Innovative Project generates zero payoff at the end of the short term, and 160 being the shareholders' legacy value. Similarly, $(0.2 \times 0.9 \times 160)$ is the payoff the shareholders expect to receive when they fire a Bad Manager at the end of the short term.

238. The amount the shareholders expect to receive under the attribution of a 28% equity stake to the manager, 254.1, is also lower than the amount they could obtain *without any equity incentives*, but they would retain the option of firing the manager at the end of the short term, i.e., 271. Because without equity incentives the good manager would always take the Regular Project, the shareholders expect to receive the following:

$$1 \times [0.8 \times (1 \times 100 + 1 \times 100 + 0.4 \times 250) + 0.2 \times (0.1 \times 100 + 0.1 \times 0.1 \times 100 + 0 \times 250)] + (0.2 \times 0.9 \times 160) = 271.$$

Note that this amount is also higher than what the shareholders expect to receive when they have the right to remove the manager at the end of the short term under the original 12% equity plan, i.e., 241.9. See equation *supra* note 235. This suggests that the use of incentives when the shareholders are empowered to short-term removal grants the manager a pure rent, as these incentives cannot induce optimal project selection. In the jargon of shareholder advocates, this would be "pay-without-performance." See *supra* note 61 and accompanying text. What these advocates do not see, however, is that a shareholders' removal power that can be exercised at any time, including the near term, is the cause, not the solution, to this problem.

D. THE VALUE OF TIME-CONSISTENT REMOVAL

Let us now consider the case in which the shareholders cannot remove the manager until the end of the medium-term—as it would occur under this Article’s proposal for the adoption of a time-consistent removal regime. Similar to the representation of short-term removal in Appendix Section C, the example poses that removing the manager yields the shareholders a legacy value of eighty; incorporating the benefit removal delivers as an ex post remedy against adverse selection.²³⁹

In this case, the shareholders will be able to rely on the observation of a stream of payoffs (as well as the observation of these payoffs’ order) rather than just one payoff to derive an inference on the manager’s type. Analytically, this means that they will apply the Bayes’ Rule sequentially in order to update their beliefs on the manager’s type so that the shareholders’ posteriors after observing any possible combination of payoffs yielded in the short- and medium-term will be the following:

- (i) $Prob[\text{Manager} = \text{Good} \mid \text{Observing } 100 \ \& \ 100] = (0.97 \times 0.8) / (0.97 \times 0.8 + 0.03 \times 0.1) = 0.998$. This posterior is computed by updating the previous posterior of 97% after observing 100 at the end of the short term;
- (ii) $Prob[\text{Manager} = \text{Good} \mid \text{Observing } 0 \ \& \ 0] = (0.471 \times 0.2) / (0.471 \times 0.2 + 0.529 \times 0.9) = 0.165$. This posterior is computed by updating the previous posterior of 47.1% after observing 0 at the end of the short term;
- (iii) $Prob[\text{Manager} = \text{Good} \mid \text{Observing } 100 \ \& \ 0] = (0.97 \times 0.2) / (0.97 \times 0.2 + 0.03 \times 0.9) = 0.877$. This posterior is computed by updating the previous posterior of 97% after observing 100 at the end of the medium term;
- (iv) $Prob[\text{Manager} = \text{Good} \mid \text{Observing } 0 \ \& \ 100] = (0.471 \times 0.8) / (0.471 \times 0.2 + 0.529 \times 0.1) = 0.877$. This posterior is computed by updating the previous posterior of 47.1% after observing 0 at the end of the medium term.

Like in the short-term removal case, the shareholders’ possible removal decisions are assessed by comparing the continu-

239. The legacy value when the shareholders have a medium-term removal right reduces from 160 to 80 as there is only one remaining period (i.e., the long term). See *supra* note 231.

ation value the shareholders obtain by keeping the manager for the long term to the legacy value of eighty they obtain by firing the manager in the medium term. Under the above posterior beliefs, it is then easy to see that the shareholders will fire the manager only when they observe two consecutive zero payoffs. This is so because only upon the observation of these realizations, the continuation value accruing to the shareholders is lower than the legacy value of eighty (i.e., $0.88 \times (0.165 \times 250) < 80$).²⁴⁰ Consistent with the result that over time prices tend to be more informative about managerial types, it is likewise easy to see that the probability the shareholders will correctly fire a Bad Manager increases over time. Indeed, the probability that a Bad Manager will produce two consecutive zero payoffs in the medium term—and hence will be correctly fired—is $0.9 \times 0.9 = 0.81$. Conversely, that probability is $0.2 \times 0.2 = 0.04$ for a Good Manager, meaning that the probability shareholders may mistakenly fire a Good Manager reduces to 4% under a time-consistent removal regime.

Correspondingly, the example shows that such a regime avoids interfering with a Good Manager's incentives to select the Innovative Project as a Good Manager anticipates that there is a much lower probability that she will be fired if she chooses the Innovative Project under a time-consistent removal regime. Indeed, once this circumstance is incorporated into the manager's incentive compatibility constraint, this constraint changes as follows (relative to the case of short-term removal shown under Condition (2)):

$$\begin{aligned} 0.12 \times (0.8 \times 100 + 0.8 \times 100 + 0.96 \times 250) &\geq \\ 0.12 \times (100 + 100 + 0.4 \times 250) + 12 &(3) \end{aligned}$$

where the left-hand side of Condition (3) represents the Good Manager's expected payoff from undertaking the Innovative Project and the right-hand side represents her expected payoff from undertaking the Regular Project. As the left-hand side and the right-hand side of Condition (3) yields the same result, the incentive compatibility constraint is binding, meaning that the manager will select the Innovative Project.²⁴¹

240. It is also easy to verify that for all the other cases, the continuation value the shareholders obtain by retaining the manager is higher than 80.

241. In contract theory, when the incentive compatibility constraint is binding (i.e., the values are the same), it is standard to assume that an agent will behave (i.e., she will take the action preferred by the principal). See TIROLE, *supra* note 23, at 118.

Last, because of the reduced likelihood of strategic signaling, the benefits shareholders expect to obtain for constraining adverse selection through the exercise of removal outweighs the cost they bear for the risk of short-termism. On the one hand, the expected loss to shareholders for mistakenly firing a Good Manager under this modified removal regime is reduced to 4%, implying that shareholders bear a corresponding 4% probability of losing the difference between what they would get by retaining a Good Manager in the long term and the eighty legacy value. After this probability is weighted for the population of Good Managers (80%), the expected cost to shareholders for mistakenly firing a Good Manager is thus 4.5.²⁴² This loss, however, is more than compensated by what the shareholders expect to gain from the increased 81% probability of correctly firing a Bad Manager, implying that the shareholders have a corresponding probability of gaining the difference between the eighty legacy value and what they would receive by keeping a Bad Manager in the long term (i.e., zero). After this probability is weighted for the population of Bad Managers (20%), the expected gain to the shareholders for correctly firing a Bad Manager is thirteen,²⁴³ which largely exceeds the expected cost they bear for firing a Good Manager.

E. BENEFICIAL AND EXCESSIVE BOARD'S BIAS

This last part of the numerical example addresses the function of a board's bias. To this end, as in Part IV.C, the example poses that the board's bias, β , is equal to 0.2 so that the shareholders will deem a manager to be Good at the end of the short term after observing a zero payoff with probability $0.2 \times 1 + (1 - 0.2) \times 0.471 = 57.7$ (where 0.471 is the shareholders' unbiased posterior belief under the same short-term realization). Under this posterior the shareholders' continuation pay-

242. This amount is calculated as follows: $(0.8 \times 0.04) \times [(0.88 \times 250) - 80] = 4.5$, where 0.8 is the probability of hiring a Good Manager, 0.04 is the probability that a Good Manager who selects the Innovative Project will generate two consecutive zero payoffs, (0.88×250) is the long-term shareholders' payoff from the Innovative Project net of the manager's equity incentives, and 80 is the shareholders' legacy value.

243. This amount is calculated as follows: $(0.2 \times 0.81) \times 80 = 13$, where 0.2 is the probability of hiring a Bad Manager, 0.81 is the probability that a Bad Manager who selects a Bad Project generates two consecutive zero payoffs, and 80 is the shareholder payoff when the shareholders fire the manager in the medium term.

off becomes 171.2,²⁴⁴ which is higher than the legacy value of 160. Therefore, the board will not remove the manager.²⁴⁵

Now, if the board's bias remained the same over time, it is easy to see that the board would remove the manager after observing two consecutive zero payoffs in the medium term. Under these circumstances, the board's posterior belief that the manager is Good is 32.2%.²⁴⁶ Based on this posterior, the shareholders' continuation payoff for retaining the manager for the long term is $0.88 \times (0.322 \times 250) = 73.4$, which is lower than the legacy value of eighty the shareholders receive if the board removes the manager.

In actuality, however, it is plausible to assume that a board's bias may increase over time due to greater entrenchment between boards and managers. Let us thus assume that in the medium term, the board's bias increases from 0.2 to 0.3, which is a slight, conservative increase. Still, under this greater bias, the board's posterior belief that the manager is Good upon two consecutive zero payoffs would increase to 41.6%.²⁴⁷ As a result, the board would mistakenly assess the shareholder continuation value for retaining the manager as being equal to $0.88 \times (0.416 \times 250) = 91.4$, which is higher than the legacy value of eighty. Therefore, a biased board in the long term would not remove the manager, reducing shareholder and firm value.

244. The shareholders' expected continuation payoff when they believe they are dealing with a Good Manager with probability 47.1% is determined as follows: $0.88 \times [0.577 \times (0.8 \times 100 + 250) + 0.423 \times (0.1 \times 100)] = 171.2$.

245. The assumption here is that the board is biased "in good faith" and hence will consider the shareholders' continuation payoff based on its own updated posterior of the manager's type to decide on the manager's removal. However, even in the case of a board that is biased "in bad faith," the shareholders' continuation payoff may still matter to the board as a reference point to consider to avoid a possible fiduciary action.

246. When the bias $\beta = 0.2$, the board's posterior is $(0.8 \times 16.5) + (0.2 \times 1) = 0.322$.

247. When the bias $\beta = 0.3$, the board's posterior is $(0.7 \times 16.5) + (0.3 \times 1) = 0.416$.