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Lawyers and Fools: Lawyer-Directors in Public Corporations

LUBOMIR P. LITOV,* SIMONE M. SEPE,** AND CHARLES K. WHITEHEAD***

The accepted wisdom—that a lawyer who becomes a corporate director has a fool for a client—is outdated. The benefits of lawyer-directors in today's world significantly outweigh the costs. Beyond monitoring, they help manage litigation and regulation, as well as structure compensation to align CEO and shareholder interests. The results have been an average 9.5% increase in firm value and an almost doubling in the percentage of public companies with lawyer-directors.

This Article is the first to analyze the rise of lawyer-directors. It makes a variety of other empirical contributions, each of which is statistically significant and large in magnitude. First, it explains why the number of lawyer-directors has increased. Among other reasons, businesses subject to greater litigation and regulation as well as firms with significant intangible assets, such as patents, value a lawyer-director's expertise. Second, this Article describes the impact of lawyer-directors are more likely to favor a board structure and takeover defenses that potentially reduce shareholder value—balanced, however, by the benefits of lawyer-directors, such as the valuable advice they can provide. Finally, this Article analyzes the significant reduction in risk-taking and the increase in firm value that results from having a lawyer on the board.

Our findings fly in the face of requirements that focus on director independence. Our results show that board composition—and the training, skills, and experience that directors bring to managing a business—can be at least as valuable to the firm and its shareholders.

TABLE	OF	CONTENTS
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Intr	ODUCTION	414
I.	The Monitoring and Managing Board	419

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II.	The	RISE OF THE LAWYER-DIRECTOR	425
	Α.	DATA AND DATA SOURCES	428
	В.	PREDICTING LAWYER-DIRECTORS	431
	с.	CONCERNS WITH ENDOGENEITY	436
III.	LAW	YYERS, MONITORING, AND INCENTIVES	439
	Α.	CEO COMPENSATION	440
	в.	BOARD STRUCTURE AND TAKEOVER PROTECTIONS	447
	с.	STOCK OPTION BACKDATING	451
IV.	The and	(Post-)Modern Corporation—Risk Taking, Firm Value, The Managing Board	453
	А.	RISK-TAKING	454
	В.	TOBIN'S Q AND FIRM VALUE	467
Cond	CLUSI	ON	472
Appe	NDIX	A—Definitions of Variables	473
Appe	NDIX	B—Selected Summary Data	477
Appe	NDIX	C—Robustness Analysis	479

INTRODUCTION

For over a half-century, the legal profession has debated whether lawyers should be directors of public corporations.¹ The accepted wisdom has been that lawyers should steer clear of public company boards.² A lawyer-director³ is less able to objectively assess board actions in which she participates,⁴ and if she is outside counsel, she is also less able to monitor and manage the executives who pay her legal fees.⁵ Those costs are significant and outweigh the benefits she brings to the board—her ability to spot issues,⁶ provide a perspective on

^{1.} See John F.X. Peloso et al., *The Lawyer-Director: Implications for Independence: Report of the Task Force on the Independent Lawyer*, 1998 A.B.A. SEC. LITIG. REP. 17–35 [hereinafter ABA TASK FORCE REPORT] (describing the history of ethical concerns over a lawyer serving as a director of a corporate client).

^{2.} See infra note 98 and accompanying text.

^{3.} In this Article, the term "lawyer-director" refers to a director of a public corporation with a legal degree, *see infra* note 113, regardless of whether she is practicing as a lawyer or as outside counsel to the firm at the time she is on the board.

^{4.} See infra note 99 and accompanying text.

^{5.} See infra note 100 and accompanying text.

^{6.} See Craig C. Albert, *The Lawyer-Director: An Oxymoron?*, 9 GEO. J. LEGAL ETHICS 413, 417–18 (1996); Report and Recommendations of the Comm. on Lawyer Bus. Ethics of the ABA Section of Bus. Law, *The Lawyer as Director of a Client*, 57 Bus. Law. 387, 388 (2001) [hereinafter ABA Report and Recommendations] (offering guidance on whether and how a lawyer should become a director).

LAWYERS AND FOOLS

decisions that nonlawyers may not have,⁷ and assist in navigating legal and regulatory problems as they arise.⁸ In short, a lawyer who represents herself—by acting as both a lawyer and a director—has a fool for a client.

This Article explains why the accepted wisdom is outdated and, more generally, why an assessment of board function must include an analysis of board composition, including the effect of the firm's environment on the skills and experience that directors bring to their work. The costs of being a lawyerdirector can still be significant, but the balance has now shifted in its favor reflecting a lawyer-director's ability to assist the board in managing the significant rise in litigation and regulation affecting businesses⁹ and changes in CEO compensation that occur when a lawyer is on the board.¹⁰ In fact, based on an average of 10,000 or more observations from 2000 to 2009,¹¹ we find a statistically and economically significant increase in firm value (as measured by Tobin's Q¹²) of nonfinancial companies that have a lawyer on the board.¹³ A lawyer-director increases firm value by 9.5%, and when the lawyer-director is also a company executive, the firm's value increases by 10.2%.¹⁴ The result has been an almost doubling in the percentage of public companies with lawyerdirectors from 2000 to 2009.¹⁵

This Article is the first to analyze the rise in lawyer-directors. It makes a variety of other empirical contributions—each of which is statistically significant and also large in magnitude—in addition to explaining this important shift in board composition.

We begin by explaining why the number of lawyer-directors has grown.¹⁶

^{7.} See ABA TASK FORCE REPORT, supra note 1, at 2.

^{8.} See Micalyn S. Harris & Karen L. Valihura, Outside Counsel as Director: The Pros and Potential Pitfalls of Dual Service, 53 BUS. LAW. 479, 482–83 (1998); Robert H. Mundheim, Should Code of Professional Responsibility Forbid Lawyers to Serve on Boards of Corporations For Which They Act as Counsel?, 33 BUS. LAW. 1507, 1508, 1511 (1978) (noting the importance of an "appropriate relation-ship" between counsel and a board that represents public shareholders); Harold M. Williams, Corporate Accountability and the Lawyer's Role, 34 BUS. LAW. 7, 10 (1978) (describing the view that lawyer-directors have "special knowledge of litigation and other matters of vital significance to directors").

^{9.} See infra Table 6, Panel C, and notes 102–04 and accompanying text. A board's perceptions, even if they overstate actual legal exposure, can also favor having a lawyer-director. See infra note 104 and accompanying text.

^{10.} See infra Table 6, Panel B, and accompanying text.

^{11.} The actual number of observations varies with the applicable analysis and appears in each table within this Article.

^{12.} See infra note 118.

^{13.} The empirical findings described in this Article are based on data that exclude financial institutions. *See infra* note 112 and accompanying text.

^{14.} See infra Table 6, Panel A, and accompanying text.

^{15.} The percentage of public companies with lawyer-directors was 24.5% in 2000, up to 47.5% in 2005, and 43.9% in 2009. *See infra* Figure 1 and note 107 and accompanying text.

^{16.} Based on our sample, the number of lawyer-directors was 340 (in 1393 firms) in 2000 and 541 (in 1237 firms) in 2009, with a high of 642 (in 1357 firms) in 2007. The average number of independent directors in public companies also grew over the last thirty years. *See* Sanjai Bhagat & Bernard Black, *The Non-correlation Between Board Independence and Long-Term Firm Performance*, 27 J. CORP. L. 231, 232 (2002).

Only recently have studies examined the effect on board composition of the environment in which a firm operates.¹⁷ We add to those studies by showing that businesses with intangible assets, such as patents,¹⁸ value lawyer-directors who can assist in protecting those assets.¹⁹ Firms that are more likely to be involved in litigation also benefit from having a lawyer on the board.²⁰ In addition, we identify the greater likelihood of having a lawyer-director as a business becomes more complex.²¹

Next, we describe the impact of lawyer-directors on corporate monitoring and incentives. We consider the decline in CEO risk-taking incentives that occurs with a lawyer-director.²² In addition, we analyze changes in board structure—such as whether the CEO is also board chairman—and takeover protections—such as the addition of a poison pill or classified board—that can insulate the board and CEO from shareholder oversight.²³ We also consider the effect of lawyer-directors on board integrity, using as a proxy the substantial decline in stock-option-backdating litigation when a lawyer is on the board.²⁴ Our results are consistent with lawyer-directors providing meaningful oversight over senior managers, similar to recent changes in board composition and director–officer relationships described by others.²⁵ In addition, diversity among directors can

19. See infra Table 1 and accompanying text.

20. See infra Table 1 and accompanying text. This benefit is consistent with the common explanation for the recent rise in lawyer-CEOs. Increases in regulation and greater litigation, it has been reported, provide one reason for the increase in CEOs with a legal background. See Mark Curriden, CEO, Esq.: Why Lawyers Are Being Asked to Lead Some of the Nation's Largest Corporations, 96 A.B.A. J. 31, 33 (2010).

23. See infra Table 3 and accompanying text.

25. The recent changes in board composition have been described by Professors Marcel Kahan and Edward Rock. Among other characteristics, Professors Kahan and Rock indicate that outside directors

^{17.} See Eric Helland & Michael Sykuta, Regulation and the Evolution of Corporate Boards: Monitoring, Advising, or Window Dressing?, 47 J.L. & ECON. 167, 168 (2004).

^{18.} Intellectual property rights have become an increasingly important source of cash and noncash value for corporations. See Marshall Phelps & David Kline, Burning the Ships: Intellectual Prop-ERTY AND THE TRANSFORMATION OF MICROSOFT 89-95 (2009) (describing Microsoft's ability to leverage intellectual property into value-producing assets); see also Bronwyn H. Hall, Exploring the Patent Explosion, in Essays in Honor of Edwin Mansfield: The Economics of R&D, Innovation, and Tech-NOLOGICAL CHANGE 195, 197 (Albert N. Link & F.M. Scherer eds., 2005). Global intellectual property licensing revenues approached or exceeded \$90 billion per year between 2003 and 2010. See Anne Kelley, Practicing in the Patent Marketplace, 78 U. CHI. L. REV. 115, 115 (2011). Nevertheless, 99% of patent owners never file suit to enforce their rights, see Mark A. Lemley, Rational Ignorance at the Patent Office, 95 Nw. U. L. REV. 1495, 1501 (2001), although litigated patents are likely to be among the most valuable patents to a firm, see John R. Allison et al., Valuable Patents, 92 GEO. L.J. 435, 435-37, 439-43 (2004). Notwithstanding the relatively small number of litigated patents, patent case filings rose from 1991 to 2008 in line with (and at a rate exceeding) the grant of new patents, and since 2005, at least ten significant federal district court decisions have awarded patent holders amounts in excess of \$100 million. See Aron Levko et al., A Closer Look: PATENT LITIGATION TRENDS AND THE INCREAS-ING IMPACT OF NONPRACTICING ENTITIES 4, 7 (2009), available at http://www.pwc.com/us/en/forensicservices/publications/assets/2009-patent-litigation-study.pdf. In cases that went to trial, nonpracticing entities and practicing entities were successful, respectively, 67.4% and 65.8% of the time. See id. at 12.

^{21.} See infra Table 1 and accompanying text.

^{22.} See infra Table 5, Panel B, and accompanying text.

^{24.} See infra Table 4 and accompanying text.

improve the quality of a board's decisions, partly by bringing a depth of perspective that may not be present if the board is comprised of only like-minded people.²⁶

Finally, we describe the benefits of having a lawyer-director. Our intuition is that a lawyer's training and experience, and the judgment that comes with it, can add value to a board's decision making and promote more informed monitoring, as well as assist in managing litigation and regulatory costs.²⁷ A lawyer-director brings a special perspective based on her experience with the law and legal issues, and an appreciation of doing things "by the book" that likely comes with that experience.²⁸ In fact, we find that financial stability is likely to increase as a result of a lawyer-director's influence on decisions regarding litigation²⁹ and CEO compensation.³⁰ Although lawyer-directors may favor a board structure and takeover defenses that can reduce shareholder welfare,³¹ the potential decline is balanced by the benefits of lawyer-directors, such as the valuable advice they can provide.³² As noted earlier, the result is an increase in firm value by 9.5%, and for inside lawyer-directors, the increase rises further to 10.2%.³³

Could those results be replicated by a lawyer who advises the board, rather than joins it? We think not. A lawyer-director is more likely than outside counsel to attend board meetings and have access to information needed to properly advise the board.³⁴ She may also become aware of new information at an earlier stage, enabling her to flag concerns as they arise.³⁵ In particular, she can assist her colleagues to better understand legal and regulatory problems and, as necessary, act as a bridge between the board and outside advisors to resolve them.³⁶ Directors and managers are also more inclined to follow the advice of a

- 30. See infra Table 5, Panel B, and accompanying text.
- 31. See infra Table 3 and accompanying text.

are more likely to enjoy a less collegial relationship with insiders, have occasional need to be confrontational, and deal more often with shareholders. Directors who may be well qualified for the position, they suggest, include "retired CEOs and other retired high-level executives, bankers, accountants, consultants, or investment professionals." Marcel Kahan & Edward Rock, *Embattled CEOs*, 88 Tex. L. Rev. 987, 1044 (2010). To their list, we would also add lawyers.

^{26.} See Mathias Dewatripont & Jean Tirole, *Advocates*, 107 J. Pol. Econ. 1, 4, 29–30 (1999) (providing a formal discussion of the use of advocacy systems within various organizational contexts); *see also infra* notes 94–97 and accompanying text.

^{27.} See Constance E. Bagley, Winning Legally: The Value of Legal Astuteness, 33 ACAD. MGMT. REV. 378, 381–82 (2008).

^{28.} See id. at 380–81.

^{29.} See infra Table 5, Panels C and D, and accompanying text.

^{32.} See infra notes 214–17, 220, 225–26 and accompanying text.

^{33.} See infra Table 6, Panel A, and accompanying text.

^{34.} See Harris & Valihura, *supra* note 8, at 482–83 (describing how a lawyer-director is able to counsel the board before outside legal advice becomes necessary); Mundheim, *supra* note 8, at 1514.

^{35.} See Harris & Valihura, supra note 8, at 482-83.

^{36.} See Bagley, supra note 27, at 381, 383.

colleague who shares equal responsibility for its outcome.³⁷ That may be particularly true of lawyer-directors in light of the higher standards to which the courts have held them.³⁸

This Article's approach to the board differs from the standard framing common in much of corporate law scholarship, which often focuses on problems that arise from separating ownership and control.³⁹ The board responds to the resulting agency costs by monitoring senior managers on behalf of dispersed shareholders.⁴⁰ Our study looks outside the corporation to external factors—the business environment in which the firm operates-that can also affect the board and how it is organized.⁴¹ Which skills are optimal will be shaped over time by changes in those factors.⁴² In addition, our study looks at the experience and skills that lawyer-directors bring to managing the business, advancing corporate interests, and contributing to decision making.⁴³ The results suggest that an "ideal" board is likely to reflect circumstances that are particular to each firm. By filling substantive gaps in how the company is managed, board composition can help increase firm value. Consequently, interfering with the ability of shareholders and directors to order their own affairs potentially imposes a less efficient, less flexible model on organizations with different needs and characteristics. For that reason, we argue, a one-size-fits-all approach to regulating the board can bring with it its own costs, impairing shareholder welfare if it limits the firm's ability to respond to external change.⁴⁴

41. See Jeffrey Pfeffer, Size and Composition of Corporate Boards of Directors: The Organization and Its Environment, 17 ADMIN. Sci. Q. 218, 219 (1972).

^{37.} *See* Albert, *supra* note 6, at 417–18 (discussing the board's potential reluctance to follow the advice of outside counsel who does not share the same responsibility).

^{38.} See ABA TASK FORCE REPORT, supra note 1, at 50–56; James D. Cox, The Paradoxical Corporate and Securities Law Implications of Counsel Serving on the Client's Board, 80 WASH. U. L.Q. 541, 542 (2002).

^{39.} See Jill E. Fisch, *Taking Boards Seriously*, 19 CARDOZO L. REV. 265, 268–75 (1997) (describing two basic functions of the board: monitoring and managing).

^{40.} See Benjamin E. Hermalin & Michael S. Weisbach, *Boards of Directors as an Endogenously Determined Institution: A Survey of the Economic Literature*, 9 ECON. POL'Y REV. 7, 9–10 (2003); Roberta Romano, *Corporate Law and Corporate Governance*, 5 INDUS. & CORP. CHANGE 277, 277–78 (1996).

^{42.} See Helland & Sykuta, supra note 17, at 168–69; Amy J. Hillman et al., The Resource Dependence Role of Corporate Directors: Strategic Adaptation of Board Composition in Response to Environmental Change, 37 J. MGMT. STUD. 235, 236 (2000) (finding that, in response to deregulation of the U.S. airline industry, U.S. airline companies altered their board structure to reflect new business uncertainties).

^{43.} See Violina P. Rindova, *What Corporate Boards Have to Do with Strategy: A Cognitive Perspective*, 36 J. MGMT. STUD. 953, 960 (1999). Importantly, the effect of having a lawyer-director is significant even after controlling for the effect of outside directors. In other words, for the variables that we consider, the value provided by a lawyer-director is greater than the value provided by a nonlawyer, outside director. *See infra* note 106 and accompanying text.

^{44.} See infra discussion in section IV.B; see also Fisch, supra note 39, at 284–89 (noting that "[i]deal board structure... depends on board function" and describing firm-specific characteristics that may change board function); Larry E. Ribstein, *The Mandatory Nature of the ALI Code*, 61 GEO. WASH. L. REV. 984, 993 (1993) (finding that outside directors can benefit firms, but "they also may impose costs... that outweigh monitoring benefits").

LAWYERS AND FOOLS

In Part I, we describe the monitoring and managing functions of the board, and the effect that a firm's external environment can have on board composition.

Part II describes our data on lawyer-directors and the firm characteristics that are likely to result in having a lawyer on the board. We find that a board is more likely to include a lawyer-director (i) as the firm becomes subject to more litigation, including patent litigation; (ii) with an increase in firm size; (iii) if the firm is listed on the New York Stock Exchange (NYSE); and (iv) as the firm becomes more complex. A firm is also more likely to add a lawyer to its board if other firms in the same industry have lawyer-directors or when one or more current directors serves on a different board that has a lawyer-director.

In Part III, we consider the implications of our results on corporate monitoring and incentives. A lawyer-director causes a change in CEO incentives that more closely align CEO and shareholder interests. She is also more likely to favor the adoption of takeover defenses such as classified boards and poison pills. In addition, we find a significant drop in the likelihood of stock-optionbackdating litigation when a lawyer is on the board.

Part IV considers the substantial benefits of having a lawyer-director, including a decline in risk-taking and an increase in firm value. We argue, based on our results, that board composition—and the training, substantive skills, and experience that directors bring to managing a business—can be as or more valuable to the firm and its shareholders than current requirements that focus on director independence.

I. THE MONITORING AND MANAGING BOARD

A central focus of corporate law scholarship is the function of the board. Two basic models have emerged that seek to explain directors' responsibilities and interactions with parties in and around the corporation.⁴⁵ The dominant model is premised on agency costs, assigning to the board a monitoring function that can improve firm performance by reducing inefficiencies.⁴⁶ The second model considers the board to be a provider of management resources, including human capital (such as experience, expertise, and reputation) and relational capital (such as ties to other firms and regulators). Under this "resource dependence" approach, the board spans the divide between the company and its external environment, improving firm performance through its ability to assist in managing the company's business.⁴⁷ Both functions coexist within the board,⁴⁸ even

^{45.} See Amy J. Hillman & Thomas Dalziel, *Boards of Directors and Firm Performance: Integrating Agency and Resource Dependence Perspectives*, 28 ACAD. MGMT. REV. 383, 383 (2003) (observing that boards monitor management on behalf of shareholders and provide resources).

^{46.} See Nicola Faith Sharpe, *The Cosmetic Independence of Corporate Boards*, 34 SEATTLE U. L. REV. 1435, 1440–51 (2011).

^{47.} *See* Pfeffer, *supra* note 41, at 218–19; *see also* Hillman et al., *supra* note 42, at 239–42; Hillman & Dalziel, *supra* note 45, at 383.

^{48.} See infra notes 85–92 and accompanying text; see also Robert Charles Clark, Corporate Governance Changes in the Wake of the Sarbanes-Oxley Act: A Morality Tale for Policymakers Too,

though the latter has been much less explored.⁴⁹

The standard framing arises from the separation of ownership and control that Berle and Means identified in the public corporation.⁵⁰ That separation was the result of increased specialization by managers and capital providers. Managers developed specific skills in order to better operate the firm within an evolving and competitive marketplace.⁵¹ Investors relied on liquidity in the public market in order to diversify risk at lower cost.⁵² The result was greater independence of the managers, who relied on dispersed shareholders for low-cost equity capital while retaining control over the firm's day-to-day operations. Shareholders, in turn, received ownership-type benefits, such as voting rights and fiduciary duties, in order to limit the resulting agency costs.⁵³

Over time, board structure has also reflected shareholder attempts to further minimize agency costs.⁵⁴ Although by statute, a corporation's business is managed "by or under" the board's direction,⁵⁵ realistically, directors are unable to operate a company on their own.⁵⁶ Corporation law, therefore, permits the

52. See Eugene F. Fama & Michael C. Jensen, Separation of Ownership and Control, 26 J.L. & ECON. 301, 302–03 (1983) (exploring residual claims within a model of an organization as a "nexus of contracts").

53. See FRANK H. EASTERBROOK & DANIEL R. FISCHEL, THE ECONOMIC STRUCTURE OF CORPORATE LAW 63–67 (1991); Frank H. Easterbrook & Daniel R. Fischel, *Voting in Corporate Law*, 26 J.L. & ECON. 395, 401–06 (1983).

54. Monitoring was not historically a primary function of the board, but grew in importance as institutional shareholders looked for new means to deter management misconduct. See Franklin A. Gevurtz, The Historical and Political Origins of the Corporate Board of Directors, 33 HOFSTRA L. REV. 89, 169–70 (2004); 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, 1469 (2007); see also Laura Lin, The Effectiveness of Outside Directors as a Corporate Governance Mechanism: Theories and Evidence, 90 Nw. U. L. REV. 898, 900 n.4 (1996) (compiling sources that suggest that electing outside independent directors can deter management misconduct).

55. See, e.g., DEL. CODE ANN. tit. 8, § 141(a) (2012) ("The business and affairs of every corporation organized under this chapter shall be managed by or under the direction of a board of directors, except as may be otherwise provided in this chapter or in its certificate of incorporation."); see also, e.g., Mills Acquisition Co. v. Macmillan, Inc., 559 A.2d 1261, 1280 (Del. 1989) ("It is basic to our law that the board of directors has the ultimate responsibility for managing the business and affairs of a corporation.").

²² GA. ST. U. L. REV. 251, 278–82 (2005) (describing the interaction between the monitoring and management functions); Fisch, *supra* note 39, at 282–89; Hillman & Dalziel, *supra* note 45, at 388–94.
49. See Renée B. Adams & Daniel Ferreira, A Theory of Friendly Boards, 62 J. FIN. 217, 217–18 (2007); Hillman & Dalziel, *supra* note 45, at 383.

^{50.} See Adolph A. Berle, Jr. & Gardiner C. Means, The Modern Corporation and Private Property 4–9, 277–81 (1932).

^{51.} See Lyman P. Q. Johnson & David Millon, *Recalling Why Corporate Officers are Fiduciaries*, 46 WM. & MARY L. REV. 1597, 1618–19 (2005); see also ALFRED D. CHANDLER, JR., SCALE AND SCOPE: THE DYNAMICS OF INDUSTRIAL CAPITALISM 51–89 (1990) (explaining how changes in markets and technology underlie growth of corporate managerial hierarchies); ALFRED D. CHANDLER, JR., THE VISIBLE HAND: THE MANAGERIAL REVOLUTION IN AMERICAN BUSINESS 484–500 (1977) (describing growth of professional managers in U.S. corporations).

^{56.} See Grimes v. Donald, No. 13358, 1995 Del. Ch. LEXIS 3, at *25–26 (Del. Ch. Jan. 12, 1995) ("[T]he law recognizes that corporate boards, comprised as they traditionally have been of persons dedicating less than all of their attention to that role, . . . may satisfy their obligations by thoughtfully appointing officers, establishing or approving goals and plans and monitoring performance.").

board to delegate managerial duties to the firm's officers,⁵⁷ while directors, as fiduciaries, remain obligated to monitor those officers for the shareholders' benefit.⁵⁸ Specifically, shareholders rely on the board to select, compensate, review, and—when appropriate—replace the senior executives who run the firm,⁵⁹ delegating to the CEO and her team the authority to make day-to-day decisions that affect the company and its affairs.⁶⁰ Shareholders who are unhappy with the outcome can vote out the existing board or sell their shares.⁶¹

The focus on monitoring prompted well-founded concerns over the directors' ability to oversee senior managers.⁶² Until recently,⁶³ CEOs exercised

59. See AM. LAW INST., PRINCIPLES OF CORPORATE GOVERNANCE: ANALYSIS AND RECOMMENDATIONS § 3.01 (1994); see also Johnson & Millon, supra note 51, at 1605–08.

61. See In re The Walt Disney Co. Derivative Litig., 907 A.2d 693, 698 (Del. Ch. 2005), *aff'd* 906 A.2d 27 (Del. 2006) ("The redress for failures that arise from faithful management must come from the markets, through the action of shareholders and the free flow of capital, and not from th[e] Court."); Stephen M. Bainbridge, *Director Primacy and Shareholder Disempowerment*, 119 HARV. L. REV. 1735, 1749–51 (2006); 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, 1763–64 (2006).

62. See Lynne L. Dallas, *The Multiple Roles of Corporate Boards of Directors*, 40 SAN DIEGO L. REV. 781, 782 (2003) (noting that the "main focus" for the reform of corporate boards has been on the monitoring role).

63. See Kahan & Rock, supra note 25, at 1022–32 (describing the loss of CEO power to corporate boards).

^{57.} See DEL. CODE ANN. tit. 8, § 142(b) (2012) (permitting the board to select officers in the manner "prescribed by the by-laws or determined by the board of directors").

^{58.} See EASTERBROOK & FISCHEL, supra note 53, at 91; Clark, supra note 48, at 278–79; Henry Hansmann & Reinier Kraakman, *The End of History for Corporate Law*, 89 GEO. L.J. 439, 440–41 (2001); Johnson & Millon, supra note 51, at 1607–08; see also Nicola Faith Sharpe, *Questioning Authority: The Critical Link Between Board Power and Process*, 38 J. CORP. L. 1, 8–9 (2012) (noting that "the board plays both an active and passive role in ensuring that managers work to maximize shareholder value").

^{60.} See AM. LAW INST., supra note 59, § 3.01; Troy A. Paredes, Too Much Pay, Too Much Deference: Behavioral Corporate Finance, CEOs, and Corporate Governance, 32 FLA. ST. U. L. REV. 673, 724 (2005) ("The Delaware corporation code, for example, provides that '[t]he business and affairs of every corporation ... shall be managed by or under the direction of [the] board of directors.' In other words, the CEO has control because the board, as a matter of course, delegates it to the chief executive." (citation omitted)). Under state law, plaintiffs face a high hurdle in trying to hold the board liable for a failure to monitor the company. In order to prevail, a plaintiff must prove either (a) "the directors utterly failed to implement any reporting or information system or controls" to monitor the business or (b) "having implemented such a system or controls, [the directors] consciously failed to monitor or oversee its operations thus disabling themselves from being informed of risks or problems requiring their attention." Stone v. Ritter, 911 A.2d 362, 370 (Del. 2006). In either case, "imposition of liability requires a showing that the directors knew that they were not discharging their fiduciary obligations" and were "demonstrating a conscious disregard for their responsibilities." Id. Claims for failure to monitor have almost always involved illegality or fraud by officers or employees of the company, see Robert T. Miller, The Board's Duty to Monitor Risk After Citigroup, 12 U. PA. J. BUS. L. 1153, 1157-58 (2010), although a recent decision involving the Citigroup board's alleged failure to monitor company risk-taking left open the possibility of a plaintiff meeting its burden even if there was no illegality, see In re Citigroup Inc. S'holder Derivative Litig., 964 A.2d 106, 126 (Del. Ch. 2009). The board's monitoring obligation was modified for public companies under section 404 of the Sarbanes-Oxley Act of 2002, 15 U.S.C. § 7262 (2006 & Supp. IV), which requires the CEO and CFO periodically to publicly certify that they are familiar with the company's internal controls and have disclosed all deficiencies or material weaknesses to the company's independent auditor.

significant influence over the board and its decision-making process.⁶⁴ Because CEOs could determine board composition, directors were limited in their ability to supervise CEO conduct.⁶⁵ A poorly performing CEO could also "capture" directors who were unwilling to remove someone they had appointed and whose performance could reflect on their own business skills.⁶⁶ Over time, proxy contests, hostile takeovers, concentrated share ownership, and activist investors were each identified as effective means to reinvigorate board oversight.⁶⁷ Each looked to enhance director independence⁶⁸ in light of the conventional wisdom that independent directors are the most effective monitors.⁶⁹ Their special position was bolstered by court decisions that applied a more deferential standard of review to the judgments they made.⁷⁰ Their role—and the board's monitoring function—was reinforced by regulatory and quasiregulatory requirements that increased the number of independent directors on the board⁷¹ and assigned to them specific board-level duties.⁷²

67. See Bainbridge, supra note 61, at 1741 (suggesting that increased shareholder litigation has helped limit the risk of managerial abuse of power); Jens Dammann, Corporate Ostracism: Freezing Out Controlling Shareholders, 33 J. CORP. L. 681, 687–88 (2008) (noting that controlling shareholders subject managers to increased scrutiny); Robert W. Hamilton, Corporate Governance in America 1950–2000: Major Changes but Uncertain Benefits, 25 J. CORP. L. 349, 353–64 (2000) (describing how recent developments, including the rise of institutional investors and leverage buy-outs, have helped reform corporate governance); Michael C. Jensen, The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems, 48 J. FIN. 831, 867 (1993) (contending that activist investors are an effective means of reinvigorating board oversight).

68. See Gordon, supra note 54, at 1520-40; Kahan & Rock, supra note 25, at 995-1037.

69. *See* Bhagat & Black, *supra* note 16, at 233. Notwithstanding the conventional wisdom, the empirical support for the value of independent directors to the firm has been mixed. *See id.*; Lin, *supra* note 54, at 968 app. I (listing eight studies, two with a positive correlation between outside directors and firm performance, one indicating an increase in outside directors after poor firm performance, one with a negative correlation, three with no correlation, and one with mixed results).

70. *See, e.g.*, Auerbach v. Bennett, 393 N.E.2d 994, 1001–02 (N.Y. 1979) (applying the business judgment standard to the decision of a committee of independent directors to terminate a shareholder derivative suit); *see also* Dallas, *supra* note 62, at 786.

71. The definition of "independence" is also strict. *See* New YORK STOCK EXCHANGE, LISTED COMPANY MANUAL § 303A.02 (2012), *available at* http://nysemanual.nyse.com/lcm [hereinafter NYSE MANUAL]. Under the New York Stock Exchange rules, among other requirements for a director to be independent, she cannot have been an employee of the corporation during the preceding three years and cannot have a close relative who is an employee. *See id.* § 303A.02(a)–(b)(i). Economic ties, such as a position in another company that does significant business with the corporation, may also disqualify a director from being independent. *See id.* § 303A.02(b)(v).

72. For example, New York Stock Exchange rules require most companies listed on the exchange to have a majority of independent directors on their boards. *See id.* § 303A.01. The rules also require independent directors to comprise key board committees, including the audit, compensation, and

^{64.} See Myles L. MACE, DIRECTORS: MYTH AND REALITY 72–85, 190–94 (1971); Johnson & Millon, supra note 51, at 1613–20.

^{65.} See JONATHAN R. MACEY, CORPORATE GOVERNANCE: PROMISES KEPT, PROMISES BROKEN 57 (2008); Gordon, *supra* note 54, at 1496.

^{66.} See Donald C. Langevoort, Resetting the Corporate Thermostat: Lessons from the Recent Financial Scandals About Self-Deception, Deceiving Others and the Design of Internal Controls, 93 GEO. L.J. 285, 290–95 (2004). Other problems with capture arise from norms of collegiality that make it difficult for directors to question managers and the professional and social ties that bind directors and officers. See MACEY, supra note 65, at 58–61.

2014]

LAWYERS AND FOOLS

A key to the monitoring model is understanding the incentives that drive director oversight. Independent directors are the monitors of choice, in large part due to concerns that insiders (current and former managers) and dependent outsiders (who are economically tied to the firm) have little incentive to actively supervise the firm's managers. Boards dominated by independent directors are better monitors because they lack the incentives to simply defer to senior management.⁷³ The problem is that insiders and dependent outsiders—precisely because of their close ties to the firm—may be best positioned to assess a senior manager's performance.⁷⁴ They have direct access to information about the company and its operations,⁷⁵ unlike independent directors whose source of information is more likely to be management itself.⁷⁶ Moreover, insiders and dependent outsiders may bring to the board other valuable resources that benefit the firm—through their knowledge of the independence, may not be able to provide.⁷⁷

This attention to director resources presents a version of the board that differs from the standard monitoring model. In it, the board participates in managing the business, with a greater emphasis on supporting, rather than evaluating, the firm's senior officers, as well as securing resources and reducing uncertainty around the company's operations.⁷⁸ It is a role that in Delaware is reflected in the statute granting the board its authority—declaring the business of the corporation to be "managed" by or under the board⁷⁹ without reference to monitor-

nominating committees, *see id.* §§ 303A.04(a), .05(a), .06, .07(b), with heightened standards of independence for audit committee directors, *see id.* § 303A.02. The audit committee must have the express power to hire, fire, and compensate the firm's independent auditors. *See* Sarbanes-Oxley Act of 2002 § 301, 15 U.S.C. § 78j–1(m)(2) (2006). All members of the audit committee must also be financially literate. *See* NYSE MANUAL, *supra* note 71, § 303A.07(a), cmt. In addition, the board must determine whether one or more of the audit committee members is a "financial expert." *See* Sarbanes-Oxley Act of 2002 § 407, 15 U.S.C. § 7265. The board must disclose the identity of the expert(s) or explain why none of the members qualify as a financial expert. *See* 15 U.S.C. § 7265(a).

^{73.} See William B. Chandler III, On the Instructiveness of Insiders, Independents, and Institutional Investors, 67 U. CIN. L. REV. 1083, 1084 (1999); Lynne L. Dallas, The Relational Board: Three Theories of Corporate Boards of Directors, 22 J. CORP. L. 1, 4–5 (1996); Lin, supra note 54, at 901.

^{74.} See Barry Baysinger & Robert E. Hoskisson, The Composition of Boards of Directors and Strategic Control: Effects on Corporate Strategy, 15 ACAD. MGMT. REV. 72, 76–77, 80–81 (1990).

^{75.} See id. at 78–79.

^{76.} See Adams & Ferreira, supra note 49, at 218 (noting the CEO's incentive to withhold information from the board because the probability of board intervention is greater as more information is provided); Langevoort, supra note 66, at 293–94; Sharpe, supra note 46, at 1453–55. Stock prices have grown increasingly informative, providing an additional source of feedback on company performance for independent directors. See Gordon, supra note 54, at 1469–70.

^{77.} See, e.g., Ronald W. Masulis et al., *Do Independent Expert Directors Matter?*, NAT'L INVESTOR REL. INST. 4–5 (June 1, 2012), http://www.niri.org/Other-Content/sampledocs/Ronald-W-Masulisa-Christian-Ruzzierb-et-al-Do-Independent-Expert-Directors-Matter-June-2012.aspx.

^{78.} *See* Dallas, *supra* note 73, at 11 (describing the function of the board of directors as a bridging strategy); Rindova, *supra* note 43, at 964–65 (relating the experience of the GM board as an example of this type of management).

^{79.} See supra note 55.

ing.⁸⁰ The benefits include the advice and counsel that directors can provide to managers, coordination between the firm and external bodies (such as regulators), and access to a broad network of contacts.⁸¹ From that perspective, optimal board composition should depend, in part, on the firm's operational environment and the business strategies it intends to pursue.⁸² For example, although a lawyer can provide particular expertise on legal or regulatory concerns, the value of that insight will vary with the environment in which the firm does business.⁸³ As the environment changes, optimal board composition should change as well.⁸⁴

Scholars have suggested that the monitoring and management functions are in conflict,⁸⁵ leading to some concern that the two may not be compatible—that one may substitute for the other.⁸⁶ The role of monitor can dampen the collegiality needed for directors to participate in managing the company; likewise, greater involvement in managing the business may cause a loss of the objectivity needed to adequately monitor performance.⁸⁷ The key is that, while directors may engage in both functions,⁸⁸ different boards are likely to do so to different degrees depending on their particular circumstances.⁸⁹ In that respect, the two functions can also be complementary. A director whose experience benefits the board's managing function may, through her expertise, also be able to more closely monitor how managers perform.⁹⁰ Likewise, a firm that principally benefits from an outside director's monitoring may use her industry knowledge and external relationships to assist in its business operations.⁹¹

86. See Dallas, supra note 62, at 783.

89. See Fisch, supra note 39, at 268, 282–89; Eric J. Pan, Rethinking the Board's Duty to Monitor: A Critical Assessment of the Delaware Doctrine, 38 FLA. ST. U. L. REV. 209, 223–24 (2011).

^{80.} See Clark, supra note 48, at 279.

^{81.} See Catherine M. Daily & Charles Schwenk, *Chief Executive Officers, Top Management Teams, and Boards of Directors: Congruent or Countervailing Forces?*, 22 J. MGMT. 185, 190–191, 194, 196 (1996); Dallas, *supra* note 73, at 12; Hillman et al., *supra* note 42, at 241. For example, if politics are important to firm profitability, the number of lawyer-directors and directors with political experience—who have knowledge of government procedures and insight into government actions—is likely to be greater. *See* Anup Agrawal & Charles R. Knoeber, *Do Some Outside Directors Play a Political Role?*, 44 J.L. & ECON. 179, 180, 195 (2001). Likewise, for natural gas companies between 1930 and 1998, greater regulation was associated with an increase in the number of political directors on the board, while deregulation was associated with a decrease. *See* Helland & Sykuta, *supra* note 17, at 168–69.

^{82.} See Dallas, supra note 62, at 807-08; Helland & Sykuta, supra note 17, at 169-70.

^{83.} See Dallas, supra note 62, at 806.

^{84.} See Hillman et al., supra note 42, at 242-44; Pfeffer, supra note 41, at 226.

^{85.} See MACEY, supra note 65, at 54.

^{87.} See Margaret M. Blair & Lynn A. Stout, *Trust, Trustworthiness, and the Behavioral Foundations of Corporate Law*, 149 U. PA. L. REV. 1735, 1753–59 (2001) (discussing the efficiency of promoting trust in corporate relationships); Fisch, *supra* note 39, at 280–81 (discussing the sacrifice in assessing executive performance that results when board members work closely with upper-level management); *see also* Tamar Frankel, *Corporate Boards of Directors: Advisors or Supervisors?*, 77 U. CIN. L. REV. 501, 502–04 (2008).

^{88.} See Dallas, supra note 62, at 782-83; Hillman & Dalziel, supra note 45, at 388.

^{90.} See Dallas, supra note 62, at 802, 812. But see MACEY, supra note 65, at 54 (stating that directors face an "inescapable conflict" when they evaluate decisions in which they participated).

^{91.} See Dallas, supra note 62, at 805–06; Fisch, supra note 39, at 274.

Finally, the two functions may overlap in practice. Knowing the board will take an interest in her activities, a senior officer is more likely to take extra care to gather the relevant facts, weigh the different options, anticipate competing considerations, and clarify the proposed course of action. Although the board may view its participation as managerial support, the senior officer is likely to treat it the same way she would a formal monitoring of her performance.⁹²

In the next Part, we begin to consider the role of lawyer-directors on the boards of public corporations. Lawyer-directors bring special skills to the board that can affect board decisions and firm behavior.⁹³ Experienced practitioners offer a perspective on litigation and regulation that can benefit the board's deliberations.⁹⁴ Moreover, trained in advocacy, a lawyer-director's willingness to pursue a particular course of action—potentially at odds with others on the board—can bring a diverse and valuable perspective to board discussions.⁹⁵ Of course, diversity in the boardroom can have a cost—conflict can weaken the collegiality needed to work as a group⁹⁶—but directors can temper their discussions in order to take advantage of the broader set of experiences that lawyers can contribute.⁹⁷

II. THE RISE OF THE LAWYER-DIRECTOR

In this Part and in Parts III and IV, we present our analysis of data on lawyer-directors on the boards of U.S. public nonfinancial corporations from

^{92.} See Clark, supra note 48, at 280-81.

^{93.} See A. Burak Güner et al., Financial Expertise of Directors, 88 J. FIN. ECON. 323, 324–26 (2008) (finding that directors with financial expertise who are commercial or investment bankers influence corporate policies in favor of more external financing, potentially at shareholder expense); Ben W. Lewis et al., Difference in Degrees: CEO Characteristics and Firm Responses to Pressures for Disclosure 3 (May 21, 2012) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2063838 (finding that CEO characteristics also effect firm behavior and, in particular, that lawyer-CEOs are less receptive to shareholder requests). Although the effect of director independence on firm profitability has been unclear, see Bhagat & Black, supra note 16, at 233, more recent research suggests that a focus on independence alone may not reflect the characteristics that are relevant to performance, see Masulis et al., supra note 77, at 4–5 (concluding that independent experts with industry experience significantly improve firm performance). Instead, directors with industry-specific knowledge are more likely to be present on the boards of more complex firms and, among other effects, enhance firm performance, lower the likelihood of earnings restatements, improve the CEO's pay-for-performance sensitivity, and boost innovation. See id. at 6–7.

^{94.} See Ronald C. Anderson et al., *The Economics of Director Heterogeneity*, 40 FIN. MGMT. 5, 6 (2011) (discussing the effects of board heterogeneity in bringing a variety of perspectives and skills to decision making).

^{95.} See Lynne L. Dallas, *The New Managerialism and Diversity on Corporate Boards of Directors*, 76 TUL. L. REV. 1363, 1406 (2002); Marleen A. O'Connor, *The Enron Board: The Perils of Groupthink*, 71 U. CIN. L. REV. 1233, 1306–11 (2003); Rindova, *supra* note 43, at 960. In particular, diverse occupational backgrounds can enhance how well a firm performs, with an even greater effect on performance if the firm is operationally complex. *See* Anderson et al., *supra* note 94, at 6–7.

^{96.} See Donald C. Langevoort, The Human Nature of Corporate Boards: Law, Norms, and the Unintended Consequences of Independence and Accountability, 89 GEO. L.J. 797, 810–11 (2001).

^{97.} See Dallas, supra note 62, at 814–15; Marta A. Geletkanycz & Sylvia Sloan Black, Bound by the Past? Experience-Based Effects on Commitment to the Strategic Status Quo, 27 J. MGMT. 3, 15–16 (2001).

2000 to 2009 using standard econometric techniques we describe in more detail below. Our results are consistent with the managing function of the board, although not to the exclusion of important monitoring benefits.

The accepted wisdom is that lawyers should steer clear of joining the board of directors of a public company.⁹⁸ The emphasis has been on the significant costs arising from the dual role of counselor and director. A lawyer-director is less able to objectively assess board actions in which she participates,⁹⁹ and if she is outside counsel, she also is less able to monitor and manage the senior executives who pay her legal fees.¹⁰⁰ Balanced against those costs are the potential benefits of having a lawyer on the board—although, within the accepted wisdom, they are outweighed by the costs that a lawyer-director brings.¹⁰¹

We believe that rises in regulation and litigation¹⁰² have shifted that cost-

100. See James D. Cox, *The Paradoxical Corporate and Securities Law Implications of Counsel Serving on the Client's Board*, 80 WASH. U. L.Q. 541, 550–55 (2002); Martin Riger, *The Lawyer-Director—"A Vexing Problem*," 33 BUS. LAW. 2381, 2384–86 (1978). In addition, lawyer-directors are held to a higher standard of conduct than nonlawyers, raising the risk of liability. *See* ABA TASK FORCE REPORT, *supra* note 1, at 50–56. A lawyer-director may also find herself excluded under the corporation's director and officer liability insurance policy and her firm's malpractice insurance policy. *See* Harris & Valihura, *supra* note 8, at 493–96. Her dual position also jeopardizes the firm's ability to rely on the attorney–client and work-product privileges in connection with any advice she provides. *See* ABA TASK FORCE REPORT, *supra* note 1, at 44–50; ABA Report and Recommendations, *supra* note 6, at 389–90; Robert P. Cummins & Megyn M. Kelly, *The Conflicting Roles of Lawyer as Director*, 23 LITIG. 48, 49–50 (1996); Harris & Valihura, *supra* note 8, at 483–89.

101. See supra notes 6-8 and accompanying text.

102. It is difficult to precisely measure the rise in regulation and litigation during the period, but there are a number of ways to approximate the growth. The various measures suggest that regulation and litigation were significant and increased from 2000 to 2009 (our observation period). Counting the number of Federal Register pages provides an inexact measure of new federal regulation. During 2000–2009, the total number of Federal Register pages ranged between 64,438 and 79,435 annually. *See* CLYDE WAYNE CREWS JR., TEN THOUSAND COMMANDMENTS: AN ANNUAL SNAPSHOT OF THE FEDERAL REGULATORY STATE 14 (2010), *available at* http://cei.org/cei_files/fm/active/0/Wayne%20Crews%20-%20Ten%20Thousand%20Commandments%20-%2010KC%20-%202010.pdf. More telling was the relative increase in Federal Register pages compared to prior decades. In 2000–2009, the total was 730,176

^{98.} See ABA TASK FORCE REPORT, supra note 1, at 63–64; cf. ABA Standing Comm. on Ethics & Prof'l Responsibility, Lawyer Serving as Director of Client Corporation, Formal Op. 98–410 (Feb. 27, 1998), reprinted in Collected FORMAL OPINIONS 1983–1998; N.Y. State Bar Ass'n Comm. on Prof'l Ethics, Op. 589 (1988).

^{99.} See CHARLES W. WOLFRAM, MODERN LEGAL ETHICS § 13.7, at 739 (1986); ABA TASK FORCE REPORT, supra note 1, at 36–38, 44–50; ABA Report and Recommendations, supra note 6, at 388–89; John S. Dzienkowski & Robert J. Peroni, The Decline in Lawyer Independence: Lawyer Equity Investments in Clients, 81 TEX. L. REV. 405, 532 (2002) (discussing a potential conflict of interest); Donald C. Langevoort, The Epistemology of Corporate-Securities Lawyering: Beliefs, Biases and Organizational Behavior, 63 BROOK. L. REV. 629, 673–74 (1997); Simon M. Lorne, The Corporate and Securities Adviser, the Public Interest, and Professional Ethics, 76 MICH. L. REV. 423, 491 (1978) ("[M]anagement is pleased to list counsel as not being an employee or any sort of affiliate, but it views him as an essentially captive director whose vote is reliably pro-management"); Martin Riger, The Model Rules and Corporate Practice—New Ethics for a Competitive Era, 17 CONN. L. REV. 729, 743 (1985) (explaining what should happen when the lawyer-director's position is in conflict with that of the corporation); Potter Stewart, Professional Ethics for the Business Lawyer: The Morals of the Market Place, 31 BUS. LAW. 463, 464 (1975). But see Albert, supra note 6, at 430 (arguing that the allegiances of a lawyer and director "are largely consistent").

LAWYERS AND FOOLS

benefit balance by contributing significantly to the benefits of having a lawyer on the board.¹⁰³ The board's perceived sense of risk, even if it overstates actual legal exposure, can also favor having a lawyer as a colleague.¹⁰⁴ We also believe that lawyer-directors provide significant monitoring benefits, adjusting a CEO's incentives to more closely align her interests with those of the firm.¹⁰⁵ Importantly, the benefit of a lawyer-director is significant even after controlling for the effects of outside directors. In other words, for the variables that we consider below, the value provided by a lawyer-director is greater than the value provided by a nonlawyer, outside director.¹⁰⁶ As a result of the benefits, the percentage of firms with lawyers on the board has risen substantially—from 24.5% in 2000 to 43.9% in 2009 (and topping at 47.5% in 2005)—as indicated in Figure 1 below.¹⁰⁷

Assessing the trend in lawyer-directors is difficult due to the limited availability of historical data and uncertainty over how they were compiled.¹⁰⁸ The number of lawyer-directors appears to have been significant during the 1970s and early 1980s¹⁰⁹ but may have dropped in the late 1980s and 1990s, perhaps

105. See infra Table 6, Panel B, and accompanying text.

108. See ABA TASK FORCE REPORT, supra note 1, at 6.

pages, a 17.3% increase over the 1990s (622,368 pages) and a 38.0% increase over the 1980s. See id. at 16. Using the Code of Federal Regulations ("CFR") as a measure, in 2010, the CFR contained 55% more pages than in 1980, growing from 102,195 to 157,974 pages. See id. at 15. Moreover, as of 2010, 184 of the new federal regulations were classified as "economically significant"-meaning that the relevant regulator estimated that the rule would have an annual economic effect of at least \$100 million-a 34.3% increase over the preceding five years. See id. at 22. On the litigation front, between 2000 and 2009, the amounts annually budgeted by federal agencies to police regulatory compliance rose by 70.8%, from \$31.8 billion to \$54.3 billion. See id. at 11. Surveys of in-house counsel of U.S. and U.K. firms conducted in 2006–2010 showed that, in each year, between 22% and 40% of firms expected the total number of legal disputes to increase over the coming twelve months. See FULBRIGHT & JAWORSKI LLP, 7th ANNUAL LITIGATION TRENDS SURVEY REPORT 10 (2010), available at http:// www.fulbright.com/images/publications/7thLitigationTrendsReport.pdf. From 2005 to 2010, more than a quarter of the surveyed companies (the highest, in 2007, at 39%) reported they were involved in one or more lawsuits with more than \$20 million at stake. See id. at 15. During 2009 and 2010, 36% and 39% of surveyed firms with gross revenues of \$1 billion or more reported the commencement of at least one class action against them. See id. at 46. One reason for the rise in shareholder lawsuits may have been increased competition among plaintiffs' lawyers to pursue a wider range of lucrative corporate claims. See Brian Cheffins et al., Delaware Corporate Litigation and the Fragmentation of the Plaintiffs' Bar, 2012 COLUM. BUS. L. REV. 427, 466-79 (2012) (describing reasons for the increase in corporate litigation rates after 2000).

^{103.} See infra Table 6, Panel C, and accompanying text.

^{104.} See Langevoort, supra note 96, at 823–24 (explaining why, under certain circumstances, directors overestimate legal risk).

^{106.} This control, identified as OUTSIDE_DIRECTORS, is made for all tables in our study. In this Article, for brevity, we present the control for OUTSIDE_DIRECTORS in Table 3, Panel A; Table 4; and Table 6. Outcomes for the control in the remaining tables are on file with the authors.

^{107.} Based on our sample, the number of lawyer-directors also grew during the period. *See supra* note 16 and accompanying text.

^{109.} A sizeable directory of lawyer-directors in public corporations during 1972–1974 appears in OUTSIDE COUNSEL: INSIDER DIRECTOR, LAWYERS ON THE BOARDS OF AMERICAN INDUSTRY 135–310 (William J. Hudson, Jr. ed., 1974). A 1980 survey of proxy statements by the Securities and Exchange Commission ("SEC") found that 57.6% of the 1200 public firms analyzed included at least one lawyer on its board



Figure 1. Recent Changes in Lawyer-Directors for the Period 2000–2009.

Figure 1 shows the percentage of firms in our sample of public corporations which have lawyer-directors (middle checkered line). It also shows (i) the percentage of outside directors as a share of all directors (solid line) and (ii) the percentage of lawyer-directors as a share of all directors (bottom checkered line).

due to concerns over a lawyer-director's heightened liability.¹¹⁰ One survey indicated that the percentage of companies with outside counsel on the board ranged from 19.4% in 1988 to 18% in 1991 and 17.5% in 1992,¹¹¹ which is roughly consistent with the 24.5% we observed in 2000.

A. DATA AND DATA SOURCES

We obtained data from several sources. For each of those sources, the relevant observation period was 2000 to 2009.

Our main source was the BoardEx database, which includes data on individual directors of 1500 U.S. public corporations comprising the S&P Com-

of directors. *See* SEC, DIV. of CORP. FIN., STAFF REPORT ON CORPORATE ACCOUNTABILITY, S. DOC. No. 67–920, at 589–95, 601 (2d. Sess. 1980).

^{110.} See supra note 100.

^{111.} See ABA TASK FORCE REPORT, supra note 1, at 5.

2014]

posite 1500 Index (S&P 1500). We used those data, excluding financial institutions,¹¹² to define the main variable of our study, $JD_{i,t}$, which is an indicator variable for the presence of a lawyer-director.¹¹³ In order to identify directors who received a legal education, we used the educational background information provided by BoardEx. We also used BoardEx to compile employment history, personal information (such as gender, age, and law school alma mater), board committee assignments, and director's compensation.

In addition, we used the ExecuComp database, which includes data on companies in the S&P 1500, to obtain information on executive incentives, including CEO VEGA_{*i*,*t*}¹¹⁴ (CEO compensation tied to changes in stock value) and CEO DELTA_{*i*,*t*} (CEO compensation tied to changes in stock volatility), CEO Salary, CEO Excess Compensation, and whether the CEO and board chairman are the same person.

We used the Risk Metrics database in order to obtain data on each firm's governance features. In particular, we retrieved the Entrenchment Index ("E Index"), which is a count index of provisions in corporate charters and by-laws that provide protection against unsolicited takeovers such as classified boards and poison pills.¹¹⁵

For litigation, we used the Audit Analytics litigation file for 2000–2010. Included in that file was information on litigation, divided by categories of lawsuits, with the most frequent categories being SECURITIES_LIT_{*i*,*t*} (securities law litigation), PATENT_LIT_{*i*,*t*} (patent litigation), CLASSACTION_LIT_{*i*,*t*} (class action litigation), and ACCOUNTING_LIT_{*i*,*t*} (litigation relating to accounting malpractice). We also used the Audit Analytics litigation file to calculate an estimated probability of litigation, identified as GENERAL_LIT_{*i*,*t*}, which is the sum of the two principal litigation categories (securities law and class action litigation) included in Audit Analytics. We also used the Audit Analytics litigation file in calculating OPTION_BACKDATING_LIT_{*i*,*t*} (stock option back-

^{112.} We excluded financial institutions principally for two reasons. First, financial firms tend to be more regulated than nonfinancial firms. Consequently, the effect of governance on risk-taking or firm value may be conditioned by external regulation. Second, empirical analysis that relates corporate governance to firm performance often excludes measures of performance that are dependent on (or related to) measures of indebtedness (such as, for example, returns on equity). Leverage in a financial firm is fundamentally different from leverage in a nonfinancial firm, so including financial firms in the data would distort the outcomes. Others have adopted the same empirical strategy. *See, e.g.,* Güner et al., *supra* note 93, at 326; David Yermack, *Higher Market Valuation of Companies with a Small Board of Directors*, 40 J. FIN. ECON. 185, 189 (1996). Excluding financial institutions, the number of companies in our data set ranged between 1205 and 1326 firms.

^{113.} Directors who received one or more of the following degrees were considered to be lawyerdirectors: JD, LLB, LLM, Doctor of Jurisprudence. Within our sample, the highest number of law degrees awarded to lawyer-directors were (in order) by: Harvard Law School, Columbia Law School, Yale Law School, New York University School of Law, and University of Michigan Law School.

^{114.} Unless otherwise defined, all initially capitalized terms and all terms entirely in capital letters are defined in Appendix A.

^{115.} For a description of the E Index, see *infra* note 210 and accompanying text.

dating litigation).¹¹⁶

Finally, we used (i) the Option Metrics database to obtain information on implied volatility, which we employed as a proxy for corporate risk,¹¹⁷ (ii) the Compustat database to collect data on additional firm features, (iii) the Center for Research in Security Prices (University of Chicago) database to calculate firm value as measured by Tobin's Q,¹¹⁸ and (iv) the Thomson Financial Dataset to calculate institutional ownership, such as ownership by mutual funds, pension funds, hedge funds, insurance companies, and investment banks, as reported on Form 13F at the end of the relevant fiscal year.¹¹⁹

117. See infra notes 258-59 and accompanying text.

118. Tobin's Q is the ratio of a firm's market value (defined as the firm's total liabilities, minus its balance sheet deferred taxes and investment tax credits, plus the value of its preferred stock and the market value of its common stock) divided by the replacement cost of its assets. See Eugene F. Fama & Kenneth R. French, Testing Trade-Off and Pecking Order Predictions About Dividends and Debt, 15 REV. FIN. STUD. 1, 8 (2002). The measure was introduced by James Tobin in A General Equilibrium Approach to Monetary Theory, 1 J. MONEY, CREDIT & BANKING 15 (1969). Tobin's Q has become a commonly recognized proxy for market valuation because market prices reflect the marginal cost of capital, which is reflected in the Tobin's Q measure. See, e.g., Philip G. Berger & Eli Ofek, Diversification's Effect on Firm Value, 37 J. FIN. ECON. 39, 40 (1995); Larry H. P. Lang & René M. Stulz, Tobin's q, Corporate Diversification, and Firm Performance, 102 J. Pol. ECON. 1248, 1249-50 (1994); Randall Morck et al., Management Ownership and Market Valuation: An Empirical Analysis, 20 J. FIN. ECON. 293, 294 (1988); Yermack, supra note 112, at 186. One major advantage of Tobin's Q is its computational simplicity. All of its determinants are retrievable from existing data sources such as, for example, the Compustat database. Tobin's Q, however, is not without its critics. First, market prices do not necessarily reflect the marginal cost of capital, but instead may reflect the average cost of capital. In that case, firm value may not be properly captured by Tobin's Q. See Joao Gomes, Financing Investment, 91 AM. ECON. REV. 1263, 1264-65 (2001); see also Eric B. Lindenberg & Stephen A. Ross, Tobin's q Ratio and Industrial Organization, 54 J. Bus. 1, 8-9 (1981). Second, Tobin's Q may not reflect an accurate valuation of the firm due to market irrationality. Irrationality could be significant if investor sentiment drives valuations in the stock market. See Malcolm Baker et al., When Does the Market Matter? Stock Prices and the Investment of Equity-Dependent Firms, 118 Q.J. ECON. 969, 969 (2003). With those caveats in mind, Tobin's Q is still a commonly accepted measure of firm valuation, including within the scholarship on corporate governance. See, e.g., Paul Gompers et al., Corporate Governance and Equity Prices, 118 Q.J. ECON. 107, 126 (2003).

119. All institutional investment managers with more than \$100 million under discretionary management are required to disclose certain of their holdings in U.S. stocks and other securities to the SEC each quarter on Form 13F. The information on Form 13F covers long positions greater than 10,000 shares or \$200,000 over which the manager exercises sole or shared investment discretion. Short positions and derivatives are not required to be disclosed. *See* Securities Exchange Act of 1934 § 13(f)(1), 15 U.S.C. § 78m(f) (2006); Form 13F, 17 C.F.R. § 249.325 (2012).

^{116.} The data comprising firms engaged in stock option backdating through September 4, 2007, is derived from (i) the *Wall Street Journal*'s Options Scorecard, a comprehensive list of companies under scrutiny for stock option grants and practices, *see Options Scorecard*, WALL ST. J. ONLINE, http://online.wsj.com/public/resources/documents/info-optionsscore06-full.html (last updated Sept. 4, 2007); and (ii) Appendix I of Margarethe F. Wiersema and Yan Zhang's *Executive Turnover in the Stock Option Backdating Wave: The Impact of Social Context* (Mar. 2011), *available at* http://muconf.missouri.edu/corporate_governance/abstracts/Session%205%20-%20Zhang%20Conference%20Paper.pdf. Data after September 4, 2007, is based on a hand-collected review of announcements made by the SEC on its website. *See Spotlight on Stock Option Backdating*, SEC. & EXCH. COMM'N, http://www.sec.gov/spotlight/optionsbackdating.htm (last updated Sept. 19, 2010).

B. PREDICTING LAWYER-DIRECTORS

Lawyer-directors are more likely to be men, sixty-three years old, and outside directors (not employed by the company) who participate on two public company boards and, within each board, are members of three or four committees. About one-fourth of lawyer-directors are members, respectively, of the audit and nominating (or governance) committees, and about one-third are members, respectively, of the compensation and risk management committees. In 7% of the boards, the lawyer-director is also chairman; in 9%, he is the audit committee chair; in 14%, he is the compensation and/or risk committee chair; and in 27% he is the nominating (or governance) committee chair. A lawyer-director's average compensation is \$177,000 per year, of which over 60% is tied to the company's common stock.¹²⁰

We begin our analysis in Table 1 below by determining whether there are particular firm characteristics that are more likely to result in having a lawyer on the board. Using a determinant model,¹²¹ we assessed the likelihood of having a lawyer-director against a number of predetermined firm characteristics. We used predetermined variables in order to assess their impact, as existing firm characteristics, on the prospective likelihood of having a lawyer-director.¹²² We expected firms with a high estimated likelihood of litigation, GENERAL_LIT_{*i*,*t*-1}, to have lawyers on the board because lawyer-directors may bring special expertise in managing complex lawsuits to which the company is subject.¹²³ Larger firms are also more likely to have lawyer-directors due to their greater organizational complexity (as evidenced by a larger number of operating segments, COM-PLEXITY_{*i*,*t*-1}, and a higher amount of total assets, SIZE_{*i*,*t*-1}), as well as the likelihood of greater public and regulatory scrutiny.¹²⁴ We also expected firms listed on the NYSE to be more likely to have lawyer-directors due to the presented firms listed public and regulatory scrutiny.¹²⁵ and the higher levels

^{120.} The data in this paragraph are all derived from Appendix B, Panel B.

^{121.} The models that underlie the tables in Parts II, III, and IV of this Article are available from the authors on request.

^{122.} Predetermining (lagging) a variable is a standard econometric technique that attempts to make the variable more exogenous to the determination of the independent variable (in this case, the like-lihood of having a lawyer-director).

^{123.} See supra note 8 and accompanying text. In order to minimize concerns over endogeneity with respect to GENERAL_LIT_{*i*,*i*} and JD_{*i*}, we also considered specifications where GENERAL_LIT_{*i*}, was lagged over two or three periods. The significance of the variable was inflated in those cases, consistent with the expectation that including a lawyer-director reflects her litigation expertise. More importantly, this finding confirmed our expectations in the null hypothesis—larger and more complex firms listed on the NYSE or in industries with a higher degree of litigation are more likely to have a lawyer on the board.

^{124.} See Agrawal & Knoeber, supra note 81, at 183-85 (describing the effect of size on political oversight).

^{125.} See supra notes 71–72 and accompanying text. Firms listed on the NYSE are subject, among other laws, to the Sarbanes-Oxley Act of 2002 § 404, 15 U.S.C. § 7262 (2006 & Supp. IV), which has increased the presence of lawyers and other outsiders on boards of directors. See infra note 130 and accompanying text.

of corporate governance regulation—and related litigation—to which public companies are subject.¹²⁶ Finally, we considered the effect of institutional share ownership by investment managers with more than \$100 million under discretionary management, INSTITUTIONAL OWN_{*i*,*t*-1}, on having a lawyer-director. We considered the possibility that higher levels of institutional ownership could affect how a company is operated, as well as the composition of its board.¹²⁷

In addition, we included several variables, outside of firm characteristics, that could influence the selection of a lawyer-director. We included an indicator variable, SOX_{t} , equal to one in the period following enactment of the Sarbanes-Oxley Act of 2002 ("SOX").¹²⁸ Although aspects of board structure changed prior to SOX's passage,¹²⁹ the Act had a dramatic effect on corporate boards, their activities, and their costs.¹³⁰ Following SOX, the makeup of the director pool also changed, increasing the likelihood of lawyers, financial experts, academics, and retired executives becoming directors.¹³¹ Also included was a variable that captured the propensity of other firms in the same industry to include lawyers on their boards, INDUSTRY JD_{*i*} $_{1-1}$.¹³² Due to an industry's particular characteristics (such as increased regulation), we anticipated that firms in some industries would benefit more than firms in others by having a lawyer on the board.¹³³ Finally, we included an indicator variable, JD NETWORK_{i,t-1}, equal to one if at least one director was a member of another board that included a lawyer-director.¹³⁴ Consistent with other examples of overlapping boards sharing knowledge, we expected directors who sit on more than one board, and who find a lawyer-director to be valuable, to share those experiences with others.¹³⁵

^{126.} See Stephen M. Bainbridge, Corporate Governance and U.S. Capital Market Competitiveness 6–31 (UCLA School of Law, Working Paper No. 10-13, 2010), available at http://ssrn.com/ abstract=1696303 (discussing the massive growth in corporate and securities litigation risk and the increasing cost and complexity of U.S. regulation).

^{127.} See Kahan & Rock, supra note 25, at 995–1013 (describing increased activism among institutional shareholders and the resulting changes in board organization).

^{128.} Sarbanes-Oxley Act of 2002 § 404, 15 U.S.C. § 7262 (2006 & Supp. IV). Note that SOX was partially effective in 2003, and most of its provisions were effective by 2004. This indicator variable, therefore, is coded as equal to one in the period starting with 2004.

^{129.} See Kahan & Rock, supra note 25, at 1026-27.

^{130.} See James S. Linck et al., The Effects and Unintended Consequences of the Sarbanes-Oxley Act on the Supply and Demand for Directors, 22 REV. FIN. STUD. 3287, 3289–90 (2009).

^{131.} See id. at 3290.

^{132.} Note that, in order to avoid a mechanical positive correlation, this variable is calculated for each firm to exclude that firm's propensity to have a lawyer-director.

^{133.} See Agrawal & Knoeber, supra note 81, at 185 (finding that the importance of having directors with political experience varies by industry).

^{134.} Variables (i)–(iii) are exclusive, since their effect on the choice of having a lawyer-director occurs through channels that are distinct from the channels that influence the dependent variables (risk-taking, CEO compensation, firm value, and other mechanisms of corporate governance) to be separately investigated.

^{135.} See Gerald F. Davis, Agents Without Principles? The Spread of the Poison Pill Through the Intercorporate Network, 36 ADMIN. SCI. Q. 583, 592–94, 607–08 (1991) (finding that interlocking boards provided one means for companies to communicate an innovation's value to others); James D. Westphal & Edward J. Zajac, Defections from the Inner Circle: Social Exchange, Reciprocity, and the

Although some firm characteristics can be codetermined with having a lawyerdirector, variables such as SOX, the firm's industry, and director networks are purely exogenous determinants.

In Table 1, we controlled for various categories of litigation propensity. Those included the probability of a firm being engaged in patent litigation, PATENT_LIT_{*i*,*t*-1}, the probability of litigation relating to the securities laws, SECURITIES_LIT_{*i*,*t*-1}, the probability of class action litigation, CLASS ACTION_LIT_{*i*,*t*-1}, and the probability of litigation relating to accounting malpractice, ACCOUNTING_LIT_{*i*,*t*-1}.

Our main findings were consistent with our expectations—namely, that each determinant was a predictor of having a lawyer on the board—except that institutional share ownership, INSTITUTIONAL OWN_{*i*,*t*-1}, was not economically significant.

Turning to economic significance, based on Model (2) of Table 1,¹³⁸ we found:

• A one standard deviation increase in the probability of litigation, GENERAL_LIT_{*i*,*t*-1}, is associated with a 2.2% standard deviation increase in the probability of having a lawyer on the board, $JD_{i,t}$.¹³⁹ Examining the four litigation categories, we also found that a one standard deviation increase in the probability of patent litigation, PATENT_LIT_{*i*,*t*-1}, is associated with a 3.6% increase in $JD_{i,t}$.¹⁴⁰

Diffusion of Board Independence in U.S. Corporations, 42 ADMIN. Sci. Q. 161, 162–63, 173–81 (1997) (explaining the diffusion of corporate governance changes, where CEOs become subject to closer board control, through the influence of CEOs from one company being on the boards of other companies).

^{136.} In this table and this Article's other tables, we report in parentheses the t-statistics associated with the test of the null hypothesis that the estimated coefficient is statistically different from zero. The analytical description of the regression models underlying this table and the other tables in this Article are online at http://georgetownlawjournal.org/articles/lawyers-and-fools/.

^{137.} The original classification of forty-eight industries in Eugene F. Fama & Kenneth R. French, *Industry Costs of Equity*, 43 J. FIN. ECON. 153, 179–81 (1997), has been updated to forty-nine industries. *See* Kenneth R. French, *Changes in Industry Specifications*, DARTMOUTH C. (Feb. 9, 2013), http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/Data_Library/changes_ind.html. Excluded from our sample are all financial firms: banking, insurance, real estate, and financial trading. *See supra* note 112.

^{138.} We present our economic significance estimates from Model (2) of Table 1 (rather than Model (1) of Table 1) because the estimates in Model (2) (a linear model) are marginal effects, whereas those shown in Model (1) (a nonlinear model) are not.

^{139.} This amount is calculated as (a) the coefficient estimate of GENERAL_LIT_{*i*,*t*-1} (0.031) in Model (2), multiplied by (b) one standard deviation in GENERAL_LIT_{*i*,*t*-1} (0.29, as set out in Appendix B, Panel A), divided by (c) the unconditional probability of having a lawyer-director (the average of JD_{*i*,*t*} 0.41, as set out in Appendix B, Panel A).

^{140.} This amount is calculated as (a) the coefficient estimate of PATENT_LIT_{*i*,*i*-1} (0.053) in Model (3), multiplied by (b) one standard deviation in PATENT_LIT_{*i*,*i*-1} (0.28, as set out in Appendix B, Panel A), divided by (c) the unconditional probability of having a lawyer-director (the average of JD_{*i*,*i*}, 0.41, as set out in Appendix B, Panel A).

			Dependent V	Variable: JD _{i,t}		
Variable:	(1)	(2)	(3)	(4)	(5)	(6)
Litigation Categories:						
GENERAL_LIT _{i,i-1}	0.10** (2.13)	0.031** (2.02)				
PATENT_LIT _{i,t-1}			0.053*** (3.19)			
SECURITIES_LIT _{i,t-1}				0.018** (2.10)		
CLASSACTION_LIT _{i,t-1}					0.009** (2.48)	
ACCOUNTING_LIT _{i,t-1}						0.01** (2.31)
Main Control Variables						
SIZE _{i,i-1}	0.132*** (13.7)	0.047*** (14.03)	0.047*** (15.26)	0.046*** (15.21)	0.047*** (15.27)	0.047*** (15.27)
NYSE-Listed _{i,t-1}	0.54*** (8.19)	0.183*** (9.07)	0.181*** (9.48)	0.182*** (9.56)	0.182*** (9.54)	0.182*** (9.54)
COMPLEXITY _{i,t-1}	0.016* (1.88)	0.006* (1.83)	0.009*** (3.11)	0.009*** (3.25)	0.009*** (3.27)	0.009*** (3.26)
INSTITUTIONAL OWN _{i,t-1}	0.069* (1.93)	0.013 (1.58)	0.016* (1.73)	0.015* (1.68)	0.014* (1.68)	0.015* (1.69)
Excluded Instruments:						
JD NETWORK _{<i>i</i>,<i>t</i>-1}	0.19*** (5.72)	0.11*** (3.81)				
SOX _t	0.79*** (11.7)	0.267*** (11.94)	0.039** (2.1)	0.039** (2.11)	0.038** (2.08)	0.039** (2.1)
INDUSTRY JD _{i,t-1}	1.189*** (11.04)	0.437*** (11.99)	0.415*** (12.85)	0.442*** (14.16)	0.443*** (14.19)	0.443*** (14.19)
Observations	8,466	8,466	8,466	8,466	8,466	8,466
Pseudo R-squared	9.4%	-	-	-	-	-
Adj. R-squared	-	12.5%	8.8%	8.7%	8.6%	8.7%

Table 1. Predictive Regression for the Choice of a Lawyer-Director.¹³⁶

Table 1 sets out the determinants of having a lawyer-director on the board of a U.S. public nonfinancial corporation. Model (1) is a Probit model (and shows actual, as opposed to marginal, effects), whereas Models (2) through (6) are linear probability models. Regressions included controls for year and industry fixed effects (industry is defined using the Fama-French 49 industry portfolios, excluding financial firms).¹³⁷ Adjusted R-squared and Pseudo R-squared are measures of model goodness of fit. The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

- A one standard deviation increase in the $SIZE_{i,t-1}$ of a company is associated with a nearly 18.4% increase in $JD_{i,t}$.¹⁴¹
- For companies listed on the NYSE, $JD_{i,t}$ increases by 44.6%.¹⁴²
- A one standard deviation increase in COMPLEXITY_{i,t-1}, as evidenced

^{141.} This amount is calculated as (a) the coefficient estimate of SIZE_{*i*,*i*-1} (0.047) in Model (2), multiplied by (b) one standard deviation in SIZE_{*i*,*i*-1} (1.603, as set out in Appendix B, Panel A), divided by (c) the unconditional probability of having a lawyer-director (the average of $JD_{i,i}$, 0.41, as set out in Appendix B, Panel A).

^{142.} This amount is calculated as the coefficient estimate of NYSE-Listed_{*i*,*t*-1} (0.183) divided by the unconditional probability of having a lawyer-director (the average of $JD_{i,t}$, 0.41, as set out in Appendix B, Panel A).

by a larger number of operating segments, is associated with a 1.8% standard deviation increase in $JD_{i,t}$.¹⁴³

A company is also more likely to have a lawyer on the board when other firms in the same industry have a lawyer-director and when one or more existing directors serve on another board with a lawyer-director.

- A one standard deviation increase in INDUSTRY JD_{*i*,*t*-1} (the propensity of firms in the same industry to include lawyers on their boards) is associated with a 14.7% standard deviation increase in the probability of having a lawyer-director, JD_{*i*,*t*}.¹⁴⁴
- An increase by one standard deviation in JD NETWORK_{*i*,*t*-1} (the likelihood of a director being a member of another board that includes a lawyer-director) is associated with a 7% increase in $JD_{i,t}$.¹⁴⁵

Generally speaking, the firm characteristics that predict whether a lawyer is on the board can be divided into two categories. In the first category are internal characteristics, such as a firm's size, complexity, and decision to list on the NYSE. Those internal characteristics—over which the company has some control—are likely to also result in the board including a lawyer-director.

In the second category are external pressures, such as greater litigation and regulation, over which the board has less control. Board composition can evolve in line with changes in the environment in which its business is conducted, with the likelihood of a lawyer-director increasing when it benefits the board to have a colleague with legal training or when other boards add a lawyer-director. With respect to patents, a lawyer-director may be particularly valuable in protecting, realizing, and leveraging the value of the firm's intangible assets.¹⁴⁶

In both cases—greater complexity and rising litigation—directors are more likely to become more closely involved in developing a company's business strategy, consistent with the board's managing function.¹⁴⁷

^{143.} This amount is calculated as (a) the coefficient estimate of COMPLEXITY_{*i*,*l*-1} (0.006) in Model (2), multiplied by (b) one standard deviation in COMPLEXITY_{*i*,*l*-1} (1.23, as set out in Appendix B, Panel A), divided by (c) the unconditional probability of having a lawyer-director (the average of JD_{*i*,*l*} 0.41, as set out in Appendix B, Panel A).

^{144.} This amount is calculated as (a) the coefficient of INDUSTRY $JD_{i,i-1}$ (0.437) in Model (2), multiplied by (b) one standard deviation in INDUSTRY $JD_{i,i-1}$ (0.138, as set out in Appendix B, Panel A), divided by (c) the unconditional probability of having a lawyer-director (the average of $JD_{i,i}$, 0.41, as set out in Appendix B, Panel A).

^{145.} This amount is calculated as (a) the coefficient estimate of JD NETWORK_{*i*,*i*-1} (0.11), multiplied by (b) one standard deviation in JD NETWORK_{*i*,*i*-1} (0.26, as set out in Appendix B, Panel A), divided by (c) the unconditional probability of having a lawyer-director (the average of $JD_{i,t}$, 0.41, as set out in Appendix B, Panel A).

^{146.} See Bagley, supra note 27, at 385-86.

^{147.} See William Q. Judge, Jr. & Carl P. Zeithaml, Institutional and Strategic Choice Perspectives on Board Involvement in the Strategic Decision Process, 35 ACAD. MGMT. J. 766, 786 (1992).

C. CONCERNS WITH ENDOGENEITY

In Parts III and IV, we consider the effect of a lawyer-director on CEO pay, board structure and takeover protections, board integrity, corporate risk-taking, and firm value. Before doing so, it may be worthwhile to first address potential endogeneity concerns around our results. Endogeneity, in this context, refers to the possibility that changes in dependent variables correlate with the presence of a lawyer-director, but may not be caused by having a lawyer-director (a "specification problem"), or that the changes may be the cause of why a lawyer is on the board rather than the other way around (a "simultaneity problem").¹⁴⁸ If either is true, the regression model we employ and the estimates we obtain may not be reliable.¹⁴⁹

To address those concerns, we employed an instrumental variable analysis through a two-stage least squares ("2SLS") regression.¹⁵⁰ In the first stage, we predicted the key independent variable, $JD_{i,t}$, that we suspected could be endogenous, using the analysis performed in Model (1) of Table 1. The prediction of JD_{i,t} relied on two sets of independent variables. The first set included GENERAL_LIT_{*i*,*t*-1}, SIZE_{*i*,*t*-1}, NYSE-Listed_{*i*,*t*-1}, COMPLEXITY_{*i*,*t*-1}, and INSTITUTIONAL OWN_{i,t-1}. The second set was composed of excluded (or distinct) instrumental variables that we assumed would influence JD_{i,t} but would not influence the applicable dependent variable. Those excluded variables were: the enactment of SOX (SOX_t); the propensity of other firms in the same industry to have lawyer-directors (INDUSTRY $JD_{i,t-1}$); and, in any given year, having at least one director sit on another board in the prior year that included a lawyer-director (JD NETWORK_{*i*,*t*-1}).¹⁵¹ Both sets of variables were predetermined, meaning they existed at the time a lawyer-director joined the board. Since they already existed, they were assumed to be exogenous—their existence was not determined by the addition of the lawyer-director-and, therefore, they could be used as instruments to predict whether a lawyer would be on the board.¹⁵² Finally, in the first stage, we controlled for year and industry fixed effects.

In the second stage, we used the value of $JD_{i,t}$ predicted from the first stage

152. Predetermined variables were also included in the rest of our empirical analyses.

^{148.} See Ian Ayres & John J. Donohue III, Shooting Down the "More Guns, Less Crime" Hypothesis, 55 STAN. L. REV. 1193, 1255–56 (2003).

^{149.} See WILLIAM H. GREENE, ECONOMETRIC ANALYSIS 227-28 (7th ed. 2012).

^{150.} See JEFFREY M. WOOLDRIDGE, ECONOMETRIC ANALYSIS OF CROSS SECTION AND PANEL DATA 89–90 (2d ed. 2010) (discussing 2SLS regressions and the diagnostic tests used to determine whether instrumental variables are correctly selected).

^{151.} Excluded instrumental variables are used to identify distinctive factors that determine the inclusion of lawyers on the board. The factors are distinctive if they explain the choice to include a lawyer-director but are unrelated to the dependent variable being studied (in this case, CEO compensation). Those instrumental variables (SOX₁, INDUSTRY JD_{i,t-1}, and JD NETWORK_{i,t-1}) are valid because (x) they are relevant to influencing the appointment of a lawyer-director, and (y) they are exclusive because their effect on having a lawyer-director occurs through channels that are distinct from the channels that influence the dependent variables. We make similar assumptions regarding relevance and exclusivity of the above instruments for the rest of our empirical analyses.

(lagged by one period, and referred to as Predicted $JD_{i,t-1}$) and related this variable to each of the dependent variables. Our empirical results using Predicted $JD_{i,t-1}$ confirmed that our instrumental variable analysis properly addressed the endogeneity concern.¹⁵³

As part of the 2SLS regression, we assumed that the excluded variables-SOX_t, INDUSTRY JD_{i,t-1}, and JD NETWORK_{i,t-1}—would influence JD_{i,t} but would not directly influence the dependent variables. There may, however, be a concern with this assumption: the possibility that one or more excluded variables, in fact, directly affected one or more of the dependent variables. For example, SOX, could directly affect CEO compensation (a dependent variable), rather than indirectly affecting CEO compensation through the presence of a lawyer-director, Predicted $JD_{i,t-1}$. To verify the treatment, we removed SOX_t from the list of excluded instruments and we controlled the regression explicitly for SOX_t. Our results remained unchanged; the impact of Predicted $JD_{i,t-1}$ on the dependent variables was the same. This was due to our specifications also including a control for year fixed effects. SOX, was defined as a dummy variable equal to 1 after 2002 and 0 otherwise. Including this annual fixed effect absorbed a substantial part of the direct effect of SOX_t on the dependent variables. Consequently, the coefficient of Predicted $JD_{i,t-1}$ explained the marginal incidence of having a lawyer-director on the dependent variables. We also controlled each of our other regressions for year fixed effects. This meant that any direct effect that SOX_t could have on a dependent or interacting variable was largely absorbed by the year control.

The industry variable, INDUSTRY $JD_{i,t-1}$, could have a quasi-industry fixed effect, meaning that (like SOX_i) it could directly influence one or more of our dependent variables. To address this concern, we controlled for industry fixed effects (using the Fama-French 49 industry categories) in our predictive model (Table 1). After controlling for the Fama-French categories, INDUSTRY $JD_{i,t-1}$ still had a positive and statistically significant effect on the likelihood of having a lawyer-director. From this result, we concluded that, at the margin, INDUSTRY $JD_{i,t-1}$ was relevant to explaining when a lawyer is on the board. We controlled our other regressions using the Fama-French 49 industry categories. This meant that any direct effect that INDUSTRY $JD_{i,t-1}$ could have on a dependent or interacting variable was largely absorbed by the Fama-French 49 industry controls.

To verify our results, we also removed INDUSTRY $JD_{i,t-1}$ from the list of excluded instruments where INDUSTRY $JD_{i,t-1}$ could affect the dependent variables. The results were substantially unchanged. The explanation here parallels the earlier reasoning for SOX_t. The Fama-French 49 industry controls absorbed a substantial portion of the effect of INDUSTRY $JD_{i,t-1}$. Thus, like SOX_t, the coefficient of Predicted $JD_{i,t-1}$ explained the marginal incidence of

^{153.} We also used Predicted $JD_{i,t-1}$ to address endogeneity concerns in the rest of our empirical analyses.

having a lawyer-director on the dependent variables once the Fama-French 49 controls were taken into account.

We did not expect JD NETWORK_{*i*,*t*-1} to directly influence our dependent variables, although it was possible the network could have had some effect independent of whether a lawyer was on the board. Our ability to exclude JD NETWORK_{*i*,*t*-1} was confirmed, however, because the residuals of the first-stage regression, where we regressed JD NETWORK_{*i*,*t*-1} against JD_{*i*,*t*}, were uncorrelated with the dependent variables in all the second-stage regressions (including CEO compensation, risk-taking, and firm value).

The endogeneity concerns were also addressed in a first-difference regression on the relationship between a lawyer-director and our two major dependent variables: firm risk-taking and value.¹⁵⁴ The principal concern was that firm characteristics, other than those controls identified in our regressions, could drive the relationship with those variables. Through a first-difference regression, we could test whether there was an idiosyncratic feature of the firm that codetermined the dependent and independent variables. Ultimately, the firstdifference method allowed us to test the isolated effect a lawyer-director has on firm risk-taking and value. Consistent with all our regressions, we also predetermined the independent variable $(JD_{i,t-1})$ by lagging it by one period. In this way, we could observe (on average at an individual firm level) whether the change in having a lawyer-director from year one to year two, for example, affected the change in risk-taking and firm value from years two to three. This model confirmed our hypothesis that the presence of a lawyer-director had a causal effect on firm risk-taking and value. The results of the regression were also consistent with the other causal claims we make in this Article.¹⁵⁵

* * *

In the next two Parts, we consider what happens after a lawyer joins the board. Part III describes the effect of a lawyer-director on board monitoring, CEO incentives, and the shareholders' ability to influence board action. None of

^{154.} Our formal robustness analysis appears in Appendix C.

^{155.} In order to strengthen our robustness checks, we substituted industry fixed effects with firm fixed effects in the 2SLS analysis. This required us to control for firm effects in the first-stage and second-stage regressions. Since our first-stage regression is nonlinear (a Probit model), the estimation is biased due to an incidental parameter problem-the problem of biased estimates in nonlinear panel data models with fixed effects that have less than ten degrees of freedom per effect, as described in J. Neyman & Elizabeth L. Scott, Consistent Estimates Based on Partially Consistent Observations, 16 ECONOMETRICA 1, 1-3 (1948). We estimated nearly 1300 firm indicators with less than 10,000 observations, so we had approximately seven degrees of freedom per firm indicator. Consequently, we implemented a model with random effects as an alternative to firm fixed effects, following the strategy suggested by William Greene in Fixed Effects and Bias Due to the Incidental Parameters Problem in the Tobit Model, 23 ECONOMETRIC REVS. 125, 131 (2004). We found that all of the second-stage results are, on average, economically stronger and statistically unchanged. We also obtained similar statistical and economic results in all of our second-stage regressions when we used, as the first-stage regression model, Model 2 in Table 1 (the linear probability model). Because the first-stage model was linear, we were able to control for firm fixed effects without concern for the incidental parameter problem discussed above.

those is a firm characteristic that determines the presence of a lawyer-director, but each is affected by having a lawyer participate in board oversight and decision making. In Part IV, we consider the impact of a lawyer-director on risk-taking and firm value. Part of the effect is tied to firm characteristics that predict having a lawyer-director—in particular, the influence on board composition of litigation and regulation—and part is related to the role of a lawyerdirector in monitoring firm performance.

III. LAWYERS, MONITORING, AND INCENTIVES

The traditional monitoring model focuses on incentives¹⁵⁶ that help align the interests of directors and managers with those of the firm—principally its ability to access low-cost equity capital, partly by minimizing agency costs.¹⁵⁷ Those incentives can be explicit, by directly tying board and manager compensation to a firm's results, or implicit, for directors, through the threat of removal by the shareholders, and for managers, through concern over being fired by the board.¹⁵⁸

Explicit and implicit incentives can be substitutes and complements.¹⁵⁹ For example, in an optimal incentive contract, the implicit incentives tied to an officer's career concerns should decline as the officer nears retirement, while the explicit incentives—tying current pay to current performance—should substitute in their place.¹⁶⁰ Alternatively, the CEO of a financially constrained firm may be forced to make incentive concessions in order to raise new funds. She may be willing, as complements, to accept a lower level of performance-based compensation, as well as the greater risk of losing her job if she performs poorly.¹⁶¹ In each case, the extent to which incentives are substitutes or complements varies with the circumstances of the officer and the company, making it difficult to assess how changes in any one incentive interact with the others.¹⁶²

In this Part, we examine the effect of a lawyer-director on both types of incentives. We start by considering changes in CEO compensation, an explicit incentive, whose effect on firm performance is likely to be tied to the risk-taking it encourages.¹⁶³ For implicit incentives, we consider changes in board

^{156.} See supra note 73 and accompanying text.

^{157.} See Oliver E. Williamson, Corporate Boards of Directors: In Principle and in Practice, 24 J.L. ECON. & ORG. 247, 250 (2008).

^{158.} See Jean Tirole, The Theory of Corporate Finance 20 (2006).

^{159.} See id. at 26-27.

^{160.} See Anup Agrawal & Charles R. Knoeber, Firm Performance and Mechanisms to Control Agency Problems Between Managers and Shareholders, 31 J. FIN. & QUANTITATIVE ANALYSIS 377, 377–78 (1996) (discussing the mechanisms through which firms can reduce the agency problems that arise when managers have incentives to pursue their own interests at the expense of the shareholders); Robert Gibbons & Kevin J. Murphy, Optimal Incentive Contracts in the Presence of Career Concerns: Theory and Evidence, 100 J. POL. ECON. 468, 469–70 (1992).

^{161.} See TIROLE, supra note 158, at 26.

^{162.} See *id.* at 378–79. Nevertheless, we are able to analyze *infra* in Part IV the overall effect on firm risk-taking and value of having a lawyer-director.

^{163.} See infra notes 170-78 and accompanying text.

structure (such as board size and whether the CEO is also board chairman) and takeover protections (such as the addition of a poison pill or classified board) that can affect board monitoring and the likelihood of the CEO being fired.¹⁶⁴ We also consider the extent to which a lawyer-director affects board integrity— the board's conducting itself in an honest manner, in particular in relation to public financial disclosure—using litigation around stock option backdating as a proxy. Accurate disclosure is particularly important because it makes clear the type of compensation the CEO has received and, more generally, it provides valuable information to shareholders who can assess firm and managerial performance.¹⁶⁵ We wait until Part IV to consider the effect of a lawyer-director on firm risk-taking and value, partly arising from the changes in incentives we analyze below.

A. CEO COMPENSATION

Few areas of corporate governance scholarship have received as much attention as executive compensation. Managers generally are more risk averse than shareholders,¹⁶⁶ who can diversify away firm-specific risks—such as a drop in performance—that a manager, whose reputation and human capital are tied to the firm, would potentially bear.¹⁶⁷ A manager who is paid a salary and a pension also becomes a creditor of the firm, with limited upside and the potential loss of her investment if the firm becomes insolvent.¹⁶⁸ Shareholders face different risks: the loss of their investment if the firm is bankrupt, but unlimited returns if the firm succeeds.¹⁶⁹

There is a well-developed body of scholarship on the use of compensation to link executive and shareholder interests.¹⁷⁰ Within a manager's pay package, the incentive component—typically stock or stock options, but more recently, an array of instruments¹⁷¹—is intended to align the interests of senior managers

^{164.} See infra notes 203-20 and accompanying text.

^{165.} See infra notes 228–29 and accompanying text.

^{166.} See David I. Walker, The Law and Economics of Executive Compensation: Theory and Evidence, in RESEARCH HANDBOOK ON THE ECONOMICS OF CORPORATE LAW 232, 236–37 (Claire A. Hill & Brett H. McDonnell eds., 2011).

^{167.} See Brian J. Hall & Kevin J. Murphy, Optimal Exercise Prices for Executive Stock Options, 90 AM. ECON. REV. 209, 210 (2000).

^{168.} See Kelli A. Alces & Brian D. Galle, *The False Promise of Risk-Reducing Incentive Pay: Evidence from Executive Pensions and Deferred Compensation*, 38 J. CORP. L. 53, 57 (2012).

^{169.} See Lucian A. Bebchuk & Holger Spamann, Regulating Bankers' Pay, 98 GEO. L.J. 247, 256 (2010).

^{170.} See generally Brian J. Hall & Jeffrey B. Liebman, Are CEOs Really Paid Like Bureaucrats?, 113 Q.J. ECON. 653 (1998) (analyzing the relationship between firm performance and CEO compensation generated by changes in the value of CEO holdings of stock and stock options); Bengt Holmström, Managerial Incentive Problems: A Dynamic Perspective, 66 REV. ECON. STUD. 169 (1999) (studying the "implicit contract" that links today's performance to future wages).

^{171.} See David I. Walker, The Challenge of Improving the Long-Term Focus of Executive Pay, 51 B.C. L. REV. 435, 448–49 (2010).

2014]

and shareholders¹⁷² by giving managers direct financial incentives to take on the risks shareholders would prefer and rewarding managers for increases in firm value.¹⁷³ Often, however, executive incentives are blamed for promoting excessive risk-taking¹⁷⁴—perhaps a breakdown in the "optimal contracting" model of compensation, which argues that incentives are the product of arm's-length bargaining between directors and managers,¹⁷⁵ or a reflection of the "managerial power" view of compensation, which argues that CEOs and other executives influence how they are paid, potentially to the detriment of shareholders and the firm.¹⁷⁶ As equity-based pay has grown,¹⁷⁷ a key to the inquiry has been whether particular incentives motivate senior managers to maximize short-term gains—by pursuing riskier projects, potentially at the expense of future profits—or improve corporate performance in a way that can be sustained over a longer period of time.¹⁷⁸

In this Part, we consider the effect of a lawyer-director on CEO compensation tied to changes in the *value* of a company's common stock, CEO DELTA_{*i*,*t*}, and changes in the *volatility* of a company's common stock, CEO VEGA_{*i*,*t*}. Delta refers to the sensitivity of an option's value to changes in the underlying asset price. CEO compensation tied to a firm's delta, therefore, is sensitive to changes in firm value, which is likely to reduce a CEO's risk-taking incentives.¹⁷⁹ Vega

176. See Lucian Arye Bebchuk et al., *Managerial Power and Rent Extraction in the Design of Executive Compensation*, 69 U. CHI. L. REV. 751, 753–54 (2002); Lucian A. Bebchuk & Robert J. Jackson, Jr., *Executive Pensions*, 30 J. CORP. L. 823, 829–31 (2005) (considering three explanations for the use of pensions as an efficient form of executive pay: favorable tax treatment, shifting the risk of poor investment performance to the company, and aligning the interests of executives and debtholders); Core et al., *supra* note 175, at 1142–43 (arguing that the boards of public companies are beholden to the firm's top management because of management control over the director nomination process); Richard A. Lambert et al., *The Structure of Organizational Incentives*, 38 ADMIN. Sci. Q. 438, 441–42 (1993).

177. See Hall & Liebman, *supra* note 170, at 682–83 (arguing that, because the board is unwilling to reduce CEO pay for poor performance, salary has a weak relation to firm performance and therefore equity-based pay is the only feasible way to create incentives); Kevin J. Murphy, *Explaining Executive Compensation: Managerial Power Versus the Perceived Cost of Stock Options*, 69 U. CHI. L. REV. 847, 847–48 (2002).

178. See Lucian A. Bebchuk & Jesse M. Fried, Pay Without Performance: Overview of the Issues, 20 ACAD. MGMT. PERSP. 5, 8 (2006); Sanjai Bhagat & Roberta Romano, Reforming Executive Compensation: Focusing and Committing to the Long-Term, 26 YALE J. REG. 359, 363 (2009) (positing that, instead of stock and stock options, incentive compensation plans should consist only of restricted stock and restricted stock options); see also Walker, supra note 171, at 439–44 (examining possible explanations for corporate boards' emphasis on short-term gains at the expense of long-term profits).

179. See Jeffrey L. Coles et al., Managerial Incentives and Risk Taking, 79 J. FIN. ECON. 431, 461 (2006).

^{172.} See Michael C. Jensen & William H. Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. FIN. ECON. 305, 353–54 (1976); Michael C. Jensen & Kevin Murphy, Performance Pay and Top Management Incentives, 98 J. Pol. ECON. 225, 242–53 (1990).

^{173.} See Walker, supra note 166, at 236–38.

^{174.} *See* Walker, *supra* note 171, at 435–36 (explaining the complaint that executive compensation is insufficiently focused on the long term, which leads to reckless short-term decision making).

^{175.} See John E. Core et al., Is U.S. CEO Compensation Inefficient Pay Without Performance?, 103 MICH. L. REV. 1142, 1160–62 (2005).

refers to the sensitivity of a stock option's price to changes in share price volatility.¹⁸⁰ As shares become more volatile, indicating an increase in company risk, CEO compensation with a positive vega will increase in value.¹⁸¹ CEO compensation that is positively tied to a firm's vega, therefore, can increase a CEO's risk-taking incentives.

Table 2, Panel A, sets out our study of the impact of lawyer-directors on CEO incentives—CEO DELTA_{i,t} and CEO VEGA_{i,t}. Our main independent variable in those regressions was the presence of a lawyer-director. To capture this, we used (i) the indicator variable $JD_{i,t-1}$ in Models (1) and (7); (ii) Predicted $JD_{i,t-1}$ in Models (2) and (8); (iii) an indicator variable if the lawyer-director is a nonexecutive, JD_OUTSIDE_{*i*,*t*-1}, in Models (3) and (9); (iv) an indicator variable if the lawyer-director is also the board's chairman, JD_CHAIRMA- $N_{i,t-1}$, in Models (4) and (10); (v) an indicator variable if a lawyer-director sits on the board's compensation committee, $JD_COMPCOM_{i,t-1}$, in Models (5) and (11); and (vi) an indicator variable if a lawyer-director is the compensation committee chairman, JD_CHAIR_COMPCOM_{*i*,*t*-1}, in Models (6) and (12). We also controlled for those variables that appear in the predictive model in Table 1, such as year and industry fixed effects, NYSE-Listed_{*i*,*t*-1}, SIZE_{*i*,*t*-1}, AVSALESGROWTH_{*i*,*t*-1} (average sales growth), DIVIDENDS_{*i*,*t*-1} (dividend payouts), CASH_{i,t-1} (cash reserves), and OUTSIDE_DIRECTORS_{i,t-1} (proportion of outside directors on the board).¹⁸² Those are important controls in regression models to determine CEO incentives because they capture firm performance, which can be an important determinant of CEO pay.¹⁸³

Our main findings in Table 2, Panel A are that the presence of a lawyerdirector is associated with executive incentives that are more aligned with long-term shareholder interests, meaning that executive pay is less sensitive to firm volatility. In addition, the more prominent the lawyer-director is on the board, the greater the directional effect on CEO incentives.

Our main findings in Table 2, Panel A, are the following:

- We found that the presence of a lawyer-director, JD_{*i*,*t*-1}, is associated with weaker risk-taking incentives. Lawyer-directors are associated with higher CEO DELTA_{*i*,*t*} and lower CEO VEGA_{*i*,*t*}.
- The effect of a lawyer-director on CEO incentives is stronger if her position on the board is more prominent—specifically, if a lawyer-

^{180.} See id.

^{181.} See David I. Walker, Evolving Executive Equity Compensation and the Limits of Optimal Contracting, 64 VAND. L. REV. 609, 620–21 (2011).

^{182.} We also considered INSTITUTIONAL OWN_{*i*,*i*-1} (percentage of stock held by institutional investment managers), but did not include it as a formal control because it was statistically insignificant.

^{183.} See John Core & Wayne Guay, Estimating the Value of Employee Stock Option Portfolios and Their Sensitivities to Price and Volatility, 40 J. ACCT. RES. 613, 614–15 (2002).

		Table 2	2—Panel	A. Law	yer-Dire	ctors an	d CEO C	Compens	ation.			
Dependent Variables:			CEO D	$ELTA_{i,t}$					CEO	VEGA _{it}		
	SIO	2SLS	OLS	OLS	OLS	SIO	SIO	2SLS	SIO	OLS	SIO	OLS
Variable:	(1)	(2)	(3)	(4)	(2)	(9)	(L)	(8)	(6)	(10)	(11)	(12)
JD_{il-I}	15.4*** (2.70)						-6.4^{***} (3.66)					
Predicted JD_{it-I}		332*** (3.11)						-58*** (2.97)				
JD_OUTSIDE _{it-1}			29.9*** (3.33)						-7.2*** (3.8)			
JD_CHAIRMAN _{<i>LI-1</i>}				52.2*** (3.56)						-9.6*** (2.79)		
JD_COMPCOM _{i,i-1}					6.99*** (3.06)						-5.4*** (2.83)	
JD_CHAIR_COMPCOM _{itt-1}						44** (2.12)						-11.8*** (3.40)
Observations	11,743	8,177	11,743	11,743	11,743	11,733	11,360	7,996	11,360	11,360	11,360	11,360
Adj. R-squared	17.9%	18.1%	17.9%	17.9%	17.9%	17.9%	41.6%	42%	41.5%	41.5%	41.6%	41.6%
This panel presents a regressive lawyer-director participation are: J and (9)), JD_CHAIRMAN _{$l-1$} (in and industry fixed effects (indust NYSE-Listed _{l_{l-1}} , SIZE _{l_{l-1}} , AVSA	on of CEO Di $D_{i,l-1}$ (in Moc Models (4) an Ty is defined ALESGROWT	ELTA _{<i>i</i>,<i>i</i>} and C dels (1) and (nd (10)), JD_ using the F_i UNII	EO VEGA _{i,t} (7)), Predicted COMPCOM _{i,1} ama-French 4 ^t DENDS _{i,t-1} , C	on variables the JD $_{i,t-I}$, where $-I$ (in Models 9 industry poident 2 SSH $_{i,t-I}$, and	the prediction (5) and (11)) rtfolios, exclu	participation 1 for JD _{<i>it</i>} is b , and JD_CH , and financi DIRECTORS	of a lawyer-d ased on Mode [AIR_COMPC al firms). We i_{i-I} . Adjusted	irector on the 1(1) in Table $OM_{i,i-1}$ (in M controlled for R-squared is	board and col 1 (in Models (7 odels (6) and c (but, for bre a measure of	ntrol variables. 2) and (8)), JD (12)). Regressi vity, do not sl model goodne	The main variant $_{eit-1}^{OUTSIDE_{it-1}}$ (ons included c how) the follo ess of fit. The	ables reflecting (in Models (3) ontrols for year wing variables: ***, **, and *

LAWYERS AND FOOLS

indicate significance at the 1%, 5%, and 10% levels, respectively.

director is the chairman of the board or sits on the compensation committee.

- As noted earlier,¹⁸⁴ our results on the impact of a lawyer-director on CEO incentives are not affected by the possible endogeneity of having a lawyer on the board. In Panel A, Model (2), we show the same qualitative results using Predicted $JD_{i,t-1}$.
- As a robustness check, we obtained the same qualitative results as Panel A when we performed a first-difference regression of CEO DEL-TA_{*i*,*t*} and CEO VEGA_{*i*,*t*} against JD_{*i*,*t*-1}.¹⁸⁵

Turning to the economic significance of the results, we found:

- Based on the estimates in Table 2, Panel A, the presence of a lawyerdirector increases CEO DELTA_{*i*,*t*} by 3.1% ¹⁸⁶ and decreases CEO VEGA_{*i*,*t*} by 9.3.%.¹⁸⁷
- Similar effects are shown in Table 2, Panel A, for alternative measures of a lawyer-director's participation on the board. For example, if the lawyer-director also serves as board chairman, the increase in CEO DELTA_{*i*,*t*} is $10.5\%^{188}$ and the decrease in CEO VEGA_{*i*,*t*} is $13.9\%^{.189}$

The effect on CEO incentives is even greater if we use Predicted $JD_{i,t-1}$ rather than $JD_{i,t-1}$. For example, a one standard deviation increase in Predicted $JD_{i,t-1}$ leads to a 12.4% increase in CEO DELTA_{*i*,*t*}¹⁹⁰ and a 15% decrease in CEO VEGA_{*i*,*t*}.¹⁹¹

In Panel B below, we relate lawyer-directors to CEO Salary and CEO Excess Compensation.¹⁹² In those regressions, following the same format as in Panel A,

^{184.} See supra notes 148-55 and accompanying text.

^{185.} The results of this robustness check are on file with the authors.

^{186.} This amount is equal to the coefficient estimate of 15.4 appearing in Panel A, Model (1), divided by average CEO DELTA_{*i*,*t*} of 497 (as set out in Appendix B, Panel A).

^{187.} This amount is equal to the coefficient estimate of -6.4 appearing in Panel A, Model (7), divided by average CEO VEGA_{*i,i*} of 69 (as set out in Appendix B, Panel A).

^{188.} This amount is equal to the coefficient estimate of 52.2 appearing in Panel A, Model (4), divided by average CEO DELTA_{*i*,*t*} of 497 (as set out in Appendix B, Panel A).

^{189.} This amount is equal to the coefficient estimate of -9.6 appearing in Panel A, Model (10), divided by average CEO VEGA_{*i*,*i*} of 69 (as set out in Appendix B, Panel A).

^{190.} This amount is equal to (a) the coefficient estimate of 332 appearing in Panel A, Model (2), multiplied by (b) 1 standard deviation in Predicted $JD_{i,l-1}$ of 0.179, divided by (c) average CEO DELTA_{*i*,*l*} of 497 (as set out in Appendix B, Panel A).

^{191.} This amount is equal to (a) the coefficient estimate of -58 appearing in Panel A, Model (8), multiplied by (b) one standard deviation in Predicted JD_{*i*,*t*-1} of 0.179, divided by (c) average CEO VEGA_{*i*,*t*} of 69 (as set out in Appendix B, Panel A).

^{192.} Our sample sizes differ across the various tabulations. This is primarily the result of differences in the availability of data on the control variables or the excluded instruments. A particular problem here is that data on the instrumental variable JD NETWORK_{*i*,*i*-*i*} are not available before 2000, whereas computation of the instrumental variable requires knowledge of the prior year's board seats for each director. In addition, we time lag the instrumental variables by one year, which limits the availability of

Table 2—P	anel B. Lawyer Dependent CEOSA	t Variable: LARY _{it}	d CEO Comper Dependent CEO-EXCE	Variable:
Variable:	(1)	(2)	(3)	(4)
	OLS	2SLS	OLS	2SLS
$JD_{i,t-1}$	0.07***		0.029***	

12,926

8.7%

Table 2—Panel B. Lawyer-Directors and CEO Com	nensation.	CEO Compe	s and (awver-Directors	B.I	-Panel	ble 2	T
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This panel presents regressions of CEOSALARY_{i,t} and CEO-EXCESSCOMP_{i,t} on variables that reflect the participation of a lawyer-director on the board. We included the same control variables as in Panel A but do not show them for brevity. Regressions included controls for year and industry fixed effects (industry is defined using the Fama-French 49 industry portfolios). Adjusted R-squared is a measure of model goodness of fit. The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

0.146**

(2.08)

9,008

10.0%

9,511

5.3%

we found that boards with lawyer-directors have higher CEO Salary and higher CEO Excess Compensation. Evaluating the economic effect of lawyer-directors on CEO Salary, we found that the addition of a lawyer on the board leads to a 5.5% standard deviation increase in CEO Salary.¹⁹³ The effect on CEO Excess Compensation is similar, a 5.7% standard deviation increase.¹⁹⁴ In addition, a one standard deviation increase in Predicted $JD_{i,t-1}$ is associated with a 2.4% standard deviation increase in CEO Salary and an 11% standard deviation increase in CEO Excess Compensation.¹⁹⁵ As a robustness check, we obtained the same qualitative results as Panel B when we performed a first-difference

0.31***

(2.96)

6,713

5.4%

Predicted JD_{it-1}

Observations

Adj. R-Squared

data to compute Predicted $JD_{i,l-l}$. The differential in sample sizes also arises from the need to truncate some dependent variables that have extreme values. Truncation is the process by which a researcher removes the extreme values of the distribution of a variable to minimize the effect of such "outliers" on the statistical analysis. For example, truncation at 5% implies that the researcher removes all observations below 2.5% and above 97.5% of the distribution of the variable. Although this technique allows for more meaningful statistical analysis, it also lowers and varies the sample sizes. See GREENE, supra note 149, at 833.

^{193.} This amount is calculated as the coefficient estimate of 0.071 divided by the standard deviation in CEO Salary of 1.289.

^{194.} This amount is calculated as the coefficient estimate of 0.029 divided by the standard deviation in CEO Excess Compensation of 0.501.

^{195.} Those amounts are calculated as follows:

For CEO Salary, we multiplied the coefficient estimate (0.146) by the standard deviation in Predicted $JD_{i,i-1}$ (0.179) and then divided the result by the standard deviation in CEO Salary (1.088).

For CEO Excess Compensation, we multiplied the coefficient estimate (0.31) by the standard deviation in Predicted $JD_{i,t-1}$ (0.179) and then divided the result by the standard deviation in CEO Excess Compensation (0.501).

Note that these findings are consistent with our finding higher levels of borrowing when a lawyer is on the board. See infra notes 298-300 and accompanying text. Higher CEO Salary reduces the potential for a CEO to be biased in favor of a firm's shareholders, which could be the case if her compensation included a significant equity component. See Bebchuk & Spamann, supra note 169, at 255-64. Jensen

regression of CEOSALARY_{i,t} and CEO-EXCESSCOMP_{i,t} against JD_{i,t-1}.¹⁹⁶

Panels A and B show two basic shifts in CEO compensation that result when a lawyer is on the board. First, a lawyer-director results in a change in incentives, with a higher CEO DELTA_{*i*,*t*} and a lower CEO VEGA_{*i*,*t*}. CEO compensation becomes more sensitive to firm value, reducing a CEO's interest in risk-taking. That effect is even greater if the lawyer-director has a senior position on the board as chairman or as part of the compensation committee. Second, a lawyer-director is likely to cause an increase in CEO salary. Although incentive compensation is weaker, the CEO's total compensation is greater.

We believe the results are consistent with three possible explanations. For one, a lawyer-director may promote more conservative management. In the ordinary course, the increase in CEO DELTA_{*i*,*t*} will reduce her interest in risktaking, and the greater salary will encourage her to support strategies that ensure the firm can continue to pay her.¹⁹⁷ There may, however, be a cost to this incentive structure. If the risk of bankruptcy rises and the value of the CEO's shares approaches zero, the CEO may decide to disproportionately increase risk-taking in a gamble to keep the firm solvent.¹⁹⁸ That interest in greater risk-taking may come at the expense of the firm's creditors, who would prefer lower levels of risk in order to preserve sufficient assets in bankruptcy to pay their claims. The resulting cost is likely to be transferred by the creditors to the firm and its shareholders through a higher cost of capital.¹⁹⁹

The second explanation relates to the "managerial power" view of compensation.²⁰⁰ It may simply be the case that CEOs are better able to influence lawyer-directors to cause the board to pay CEOs more, resulting in a rise in total CEO salary. Here, again, the greater CEO compensation is likely to encourage a CEO to manage firm performance so that she can continue to be paid. Yet, for the same reasons as before, that incentive may turn to greater risk-taking whose costs to creditors are transferred to the shareholders—in the event the firm becomes financially troubled.²⁰¹

Finally, the greater salary may reflect the greater oversight to which a CEO becomes subject when a lawyer is on the board. In general, average total CEO compensation declined from 2000 to 2008 (dropping from an average of

[&]amp; Meckling, *supra* note 172, at 353; Simone M. Sepe, *Making Sense of Executive Compensation*, 36 DEL. J. CORP. L. 189, 202–03 (2011).

^{196.} The results of this robustness check are on file with the authors.

^{197.} See supra note 179 and accompanying text.

^{198.} See Alex Edmans & Qi Liu, Inside Debt, 15 REV. FIN. 75, 87 (2011).

^{199.} See Alces & Galle, supra note 168, at 57-59; Edmans & Liu, supra note 198, at 83.

^{200.} See supra note 176 and accompanying text.

^{201.} The first two explanations assume that the CEO's salary does not include debt (including pension and other deferred compensation). Consistent with the "inside debt" approach to compensation, tying a CEO's pay to debt is expected to make her sensitive to taking on the risk of losses in excess of the firm's liquidation value. In that case, the CEO's incentives to assume greater risk will be tempered by her interest in ensuring that, if the firm becomes bankrupt, it will still have sufficient assets to pay its creditors (including her). *See* Edmans & Liu, *supra* note 198, at 92.

\$12.3 million in 2000 to \$7.3 million in 2008), roughly the same period as our analysis.²⁰² When a lawyer is on the board, however, higher salaries may compensate her for the greater oversight that comes with a lawyer-director and the potential loss of management perquisites.

The result, in all three cases, is a greater cost to the company's shareholders—at a minimum, the higher salary paid to the CEO and, potentially, the costs that result from conflict with the firm's creditors. The question, which we address in the next Part, is whether there is an offsetting benefit. To briefly anticipate that discussion, we find in Part IV that the change in CEO compensation that occurs when there is a lawyer-director results in an overall decline in risk-taking and increase in firm value.

B. BOARD STRUCTURE AND TAKEOVER PROTECTIONS

Our next focus is on the effect of a lawyer-director on board structure and takeover protections. Those relate to the implicit incentives that directors and officers face over the concern that they can be removed from their jobs for poor performance.

Board structure can affect the directors' ability to manage the firm and its officers. Earlier studies showed an inverse correlation between board size, BOARDSIZE_{*i*,*t*}, and firm value among nonfinancial firms. Those studies found, on average, that an increase in board size had a negative effect on firm value,²⁰³ most likely because, as the number of directors increased, it became more difficult to coordinate decision making and control over management.²⁰⁴ More recent studies have found that, as firms become more complex, larger boards result in higher firm value. Consistent with the board's managing function, those studies suggest that the greater size is the result of outside directors who bring more experience and knowledge to a board's decision making and provide more useful advice to the CEO.²⁰⁵

Having a board chairman who is CEO, CEOCHAIR_{*i*,*t*}, may also affect board oversight. The tasks of chairman and CEO are different and potentially conflicting. The CEO is responsible for running the company, and the chairman is responsible for running the board—one of whose principal functions is monitoring the CEO. A dual CEO-chairman is strategically positioned to pack the board with directors who are sympathetic to management, as well as to control the

^{202.} See Kahan & Rock, supra note 25, at 1037.

^{203.} See Theodore Eisenberg et al., Larger Board Size and Decreasing Firm Value in Small Firms, 48 J. FIN. ECON. 35, 36 (1998); David Yermack, Higher Market Valuation of Companies with a Small Board of Directors, 40 J. FIN. ECON. 185, 186–87 (1996).

^{204.} See Jensen, supra note 67, at 862–65 (examining the reasons that the board fails as an effective control mechanism in the absence of external crises); Yermack, supra note 203, at 186.

^{205.} See Jeffery L. Coles et al., *Boards: Does One Size Fit All?*, 87 J. FIN. ECON. 329, 330–31 (2008); see also Renee B. Adams & Hamid Mehran, Corporate Performance, Board Structure, and Their Determinants in the Banking Industry 3–4 (Oct. 2011), *available at* http://www.newyorkfed.org/research/staff_reports/sr330.pdf.

board's agenda.²⁰⁶ Consequently, a board with a dual CEO-chairman may not be as effective in monitoring senior managers as a board with an independent chairman.²⁰⁷ Perhaps as a result, the U.S. practice of having a dual CEO-chairman has apparently begun to decline.²⁰⁸

Takeover protections also affect incentives by insulating the board and officers from removal, potentially resulting in poorer performance.²⁰⁹ We use the E Index, EINDEX_{*i*,*t*}, and the presence of a classified board (also known as a "staggered" board), STAGGERED_{*i*,*t*}, as a proxy for board insulation. The E Index considers six features to be crucial indicators of entrenchment. Of the six, four are tied to limits on the shareholders' voting power—whether the firm has a classified board, limits on the shareholders' ability to amend the bylaws, and supermajority requirements for mergers and charter amendments. The remaining two are well-known takeover defenses—golden parachutes and poison pills.²¹⁰

The E Index's authors found entrenching provisions to correlate with reduced stock returns.²¹¹ For example, in a firm with a classified board, the directors are divided into classes (usually capped at three) with only one class available for election each year.²¹² Since the elections are staggered, no more than one-third can be elected at a time and no one can replace a majority of directors in a single year—making the company less attractive to a hostile challenger. As a result, a classified board may cause a decline in firm value,²¹³ but not in all cases. An insulated board may be better able to focus on valuable long-term projects without fear of takeover, even if they fail to boost short-term profits and

^{206.} See Williamson, supra note 157, at 260-62.

^{207.} See Jensen, supra note 67, at 866–67; Thuy-Nga T. Vo, Rating Management Behavior and Ethics: A Proposal to Upgrade the Corporate Governance Rating Criteria, 34 J. CORP. L. 1, 13 (2008). 208. See Kahan & Rock, supra note 25, at 1029–30.

^{209.} See Henry G. Manne, Mergers and the Market for Corporate Control, 73 J. POL. ECON. 110, 112–19 (1965); see also Olubunmi Faleye, Classified Boards, Firm Value, and Managerial Entrenchment, 83 J. FIN. ECON. 501, 503 (2007) (testing the impact of classified boards on firm value and concluding that "classified boards are always negatively related to firm value").

^{210.} See Lucian Bebchuk et al., What Matters in Corporate Governance?, 22 REV. FIN. STUD. 783, 784–85 (2009); see also Jay B. Kesten, Managerial Entrenchment and Shareholder Wealth Revisited: Theory and Evidence from a Recessionary Financial Market, 2010 BYU L. REV. 1609, 1652–53 (2010) (defining each of the six indicators of entrenchment).

^{211.} See Bebchuk et al., supra note 210, at 787, 813; see also Gompers et al., supra note 118, at 109–10. Empirical evidence, however, is equivocal on whether hostile takeovers (or the threat of takeover) provide effective means to discipline senior managers. See MACEY, supra note 65, at 122; Jill E. Fisch, *The Overstated Promise of Corporate Governance*, 77 U. CHI. L. REV. 923, 942 n.100 (2010).

^{212.} See DEL. CODE ANN. tit. 8, § 141(d) (2012). Boards can also be classified pursuant to a firm's bylaws, although this option is less common since shareholders can directly amend the bylaws to eliminate the classified structure. See John C. Coates IV, *Explaining Variation in Takeover Defenses: Blame the Lawyers*, 89 CALIF. L. REV. 1301, 1392–93 (2001). Some states, such as New York, permit a board to be divided into four classes. See N.Y. BUS. CORP. LAW § 704(a) (McKinney 2012).

^{213.} See Lucian A. Bebchuk & Alma Cohen, The Costs of Entrenched Boards, 78 J. FIN. ECON. 409, 410 (2005).

share prices.²¹⁴ Board classification can also provide directors with an important source of leverage in negotiating a higher acquisition price.²¹⁵ In addition, the value of a classified board may depend on the nature of the firm. For example, large, complex firms are likely to benefit from the diverse perspective and advice that outside directors, with special knowledge or experience, bring to the board. Those directors are more likely to invest the time and effort needed to advise a CEO if the threat of removal is lowered.²¹⁶ Under those circumstances, the benefits of a classified board can outweigh the costs of entrenchment.²¹⁷

Similarly, adopting a poison pill can protect directors from replacement, potentially with the same effect as a classified board.²¹⁸ Poison pill rights are issued to shareholders through a dividend. In a typical "flip over" pill, a firm's shareholders (other than a prospective acquirer) can exercise the poison pill rights to purchase new shares from the firm at a substantial discount from their market price after the acquirer owns or tenders for a threshold amount of shares. The result, if the poison pill is exercised, is a substantial dilution of the acquirer's ownership interest and increase in the cost of the takeover.²¹⁹ Poison pills, therefore, reduce the probability of takeovers (particularly if coupled with a classified board), potentially entrenching directors and managers within the firm. Like a classified board, however, poison pills may also have benefits. Board longevity and the greater leverage the board has to negotiate a higher purchase price can enhance firm value.²²⁰

In Table 3, we show the effect of a lawyer-director on board structure and takeover protections. Overall, the results indicate that lawyer-directors help shape board structure and the adoption of takeover protections.

The results in Table 3 tend to be more conservative—and potentially more protective—than when a lawyer is not on the board.

 Boards with at least one lawyer-director are larger in size, more likely to maintain a dual CEO-chairman position, and have more entrenchment

^{214.} See Jeremy C. Stein, Takeover Threats and Managerial Myopia, 96 J. Pol. Econ. 61, 62–63 (1988).

^{215.} See Guhan Subramanian, Bargaining in the Shadow of Takeover Defenses, 113 YALE L.J. 621, 629–30 (2003); see also Thomas W. Bates et al., Board Classification and Managerial Entrenchment: Evidence from the Market for Corporate Control, 87 J. FIN. ECON. 656, 657–58 (2008) (indicating that target shareholders with classified boards receive a larger proportional share of the total value gains in mergers relative to the gains of target shareholders of firms with a single class of directors).

^{216.} See Richard H. Koppes et al., Corporate Governance Out of Focus: The Debate over Classified Boards, 54 Bus. Law. 1023, 1051 (1999); Seoungpil Ahn & Keshab Shrestha, The Differential Effects of Classified Boards on Firm Value 3–4 (July 17, 2013) (unpublished manuscript), available at http://papers.srn.come/sol3/papers.cfm?abstract_id=1265078.

^{217.} See Ahn & Shrestha, *supra* note 216, at 3–4; *see also* Michael D. Frakes, *Classified Boards and Firm Value*, 32 DEL. J. CORP. L. 113, 118 (2007) (using quantile regressions of firm value on classified board status to determine that classified boards are not wholly negative for firms).

^{218.} See Bebchuk et al., supra note 210, at 793-94.

^{219.} See Jordan M. Barry & John William Hatfield, *Pills and Partisans: Understanding Takeover Defenses*, 160 U. Pa. L. Rev. 633, 632–43 (2012).

^{220.} See TIROLE, supra note 158, at 434.

				Dependen	t Variables:			
	BOARD	SIZE _{i,t}	EIND	$\mathrm{E}\mathbf{X}_{i,t}$	CEOC	CHAIR _{i,t}	STAGG	ERED _{i,t}
Variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	OLS	2SLS	OLS	2SLS	OLS	2SLS	OLS	2SLS
$JD_{i,t-1}$	0.31*** (7.93)		0.281*** (5.6)		0.02** (2.11)		0.033** (2.27)	
Predicted JD _{<i>i</i>,<i>t</i>-1}		0.32* (1.93)		0.82* (1.70)		0.093** (2.07)		0.27** (2.10)
Observations	9,267	7,767	9,333	8,172	9,333	8,172	9,582	8,316
Adj. R-Squared	42.9%	42.9%	16.1%	16.1%	9.4%	10.1%	22.6%	23.4%

Table 3. Lawyer-Directors, Board Structure, and Takeover Protections.

Table 3 sets forth ordinary least squares (OLS) and two-stage least squares (2SLS) regressions of various corporate governance characteristics (BOARDSIZE_{*i,i*} in Models (1)–(2); EINDEX_{*i,i*} in Models (3)–(4); CEOCHAIR_{*i,i*} in Models (5)–(6); and STAGGERED_{*i,i*} in Models (7)–(8)) on JD_{*i,i-1*} and Predicted JD_{*i,i-1*}. Specifically, we use JD_{*i,i-1*} in the odd models and Predicted JD_{*i,i-1*} (as the predicted value in Model (1) of Table 1) in the even models. We also controlled for (but, for brevity, do not show) NYSE-Listed_{*i,i-1*}, SUZE_{*i,i-1*}, AVSALESGROWTH_{*i,i-1*}, DIVIDENDS_{*i,i-1*}, CASH_{*i,i-1*}, INSTITUTIONAL OWN_{*i,i-1*}, OUTSIDE_DIRECTORS_{*i,i-1*}, and a measure of fit (adjusted R-squared) are also shown. The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

provisions (such as a classified board, a poison pill, and similar protections). The results based on Predicted $JD_{i,t-1}$ are similar.

• Lawyer-directors increase board size by 3.4% in Model (1)²²¹ and increase the E Index by nearly 10% in Model (3).²²² Their presence is also associated with a nearly 3.3% increase in the probability of having a CEO-chairman²²³ and a 5.6% increase in the probability of having a classified board.²²⁴

Our results are consistent with lawyers on the board insulating directors and managers from oversight, potentially to the shareholders' detriment. Yet, the effect, while statistically significant, is relatively small for board size and having a dual CEO-chairman—suggesting that lawyer-directors may not often seek changes in board structure. The increase is greater for the E Index and classified board. What this may indicate is a trade-off between the benefits of a lawyer-director—such as the positive impact on CEO compensation—and the costs of insulating the board from the shareholders. Alternatively, the shifts in E

^{221.} This amount is calculated as the coefficient estimate of 0.31 in Model (1) divided by the average board size of 9.06 (as set out in Appendix B, Panel A).

^{222.} This amount is calculated as the coefficient estimate of 0.281 in Model (3) divided the average E Index of 2.79 (as set out in Appendix B, Panel A).

^{223.} This amount is calculated as the coefficient estimate of 0.02 in Model (5) divided by the unconditional probability of having a CEO-Chairman of 0.60 (as set out in Appendix B, Panel A).

^{224.} This amount is calculated as the coefficient estimate of 0.033 in Model (7) divided by the average probability of having a staggered board of 0.60 (as set out in Appendix B, Panel A).

LAWYERS AND FOOLS

Index and classified board may reflect a more effective governance structure. A firm that values outside directors may benefit from greater protections against takeover. If the likelihood of removal is lowered, lawyer-directors and others may be more inclined to join the board and invest the effort needed to understand the business in order to more effectively advise the CEO.²²⁵ In either case, the question is whether changes in board structure and takeover protections, when there is a lawyer-director, result in a change in firm value. To anticipate our findings in Part IV, we find that the changes alone negatively affect firm value, and the addition of a lawyer-director does not produce a statistically significant result. Our qualitative findings, however, shift directionally from a decrease to an increase in firm value, so that board structure and takeover protections have a positive effect on firm value when a lawyer is on the board.²²⁶

C. STOCK OPTION BACKDATING

We next consider whether having a lawyer on the board affects the board's integrity,²²⁷ focusing, in particular, on the accuracy of a company's public financial disclosures. Investors must be able to rely on those disclosures in order to assess the value of their investments, as well as oversee how well the board and managers are performing.²²⁸ Undetected, improper disclosure may insulate the board and managers from shareholder oversight. Consequently, financial misconduct, when discovered, causes a substantial loss of a firm's reputation that, in turn, results in a significant drop in earnings due to lower sales and higher contracting and financing costs.²²⁹

A recent series of financial disclosure scandals arose from stock option backdating. Backdating involved a company's grant of stock options, often to senior officers, as of a date preceding and at a strike price below the stock's value on the actual date of grant.²³⁰ In most cases, backdating had adverse tax

^{225.} See supra notes 214-17, 220, 225-26, and accompanying text.

^{226.} See infra Table 6, Panel B, and accompanying text.

^{227.} In this Article, "integrity" refers to the board conducting itself in an honest manner. *See* A.B.A. BUS. LAW SEC., CORPORATE LAWS COMM., CORPORATE DIRECTOR'S GUIDEBOOK 6 (Hillary A. Sale & Holly J. Gregory eds., 6th ed. 2011).

^{228.} See Ronald C. Anderson et al., Board Characteristics, Accounting Report Integrity, and the Cost of Debt, 37 J. Accr. & Econ. 315, 316 (2004).

^{229.} See Jonathan M. Karpoff et al., *The Cost to Firms of Cooking the Books*, 43 J. FIN. & QUANTITATIVE ANALYSIS 581, 582, 598–99 (2008) (demonstrating that, on average, firms lose 38% of their market value when news of their financial misconduct is reported, largely due to adjustments to reflect the actual market value, expectations of legal penalties, and lost reputation).

^{230.} For example, assume Company A's compensation committee agrees to grant an option to the CEO on 10,000 shares of Company A stock on March 15, when the shares trade on the NYSE at \$50/share. In the ordinary course, the option's strike price would also be \$50/share; the option would have been issued "at the money." In this case, Company A's shares traded at \$40/share one month earlier, on February 15, and—in an effort to benefit the CEO—the relevant documentation stated that the CEO options were granted on February 15 with a strike price at the then-current market price of \$40/share. At the time the options were actually issued (market price of \$50/share), the option was

and accounting consequences—none of which were disclosed to the Internal Revenue Service, the firm's auditors, or its shareholders—and in some cases, resulted in the company being required to restate its publicly reported earnings. Backdating also often ran afoul of the terms of the benefit plans under which the options were granted.²³¹ When discovered, the implicated firms lost an average market value of \$389 million during the 21-day period around the first announcement of the problem.²³² We use the litigation around stock option backdating as one measure of a board's integrity in relation to the company's public financial disclosures.

In Table 4 below, we estimated dummy variable models (Probit models) where the dependent variable was 1 if the corporation had option backdating litigation in the current fiscal year, and 0 otherwise. The results demonstrate that the presence of a lawyer-director significantly lowered the likelihood of stock-option-backdating litigation.

	Dependen OPTION_BACI	t Variable: KDATING_LIT _{i,t}
Variable:	(1)	(2)
	Probit	Instrumental Variable Probit
$JD_{i,i-1}$	-0.79*** (3.42)	
Predicted JD _{<i>i</i>,<i>t</i>-1}		-0.93*** (3.32)
Observations	9,333	9,333
Pseudo R-squared	18.9%	18.2%

Table 4. Lawyer-Directors and Option Backdating Litigation.

Table 4 presents a regression analysis with the dependent variable being the probability of stock option backdating litigation (OPTION_BACKDATING_LIT_i) and the main explanatory variables being JD_{i,I-1} or Predicted JD_{i,I-1}. Models (1) and (2) are Probit models showing the actual, rather than marginal, effects of the independent variables on the probability of stock option backdating litigation. We determined Predicted JD_{i,I-1} as the predicted value from Model (1) in Table 1. We also controlled for (but, for brevity, do not show) NYSE-Listed_{i,I-1}, SIZE_{i,I-1}, AVSALESGROWTH_{i,I-1}, DIVIDENDS_{i,I-1}, CASH_{i,I-1}, OUTSIDE_DIRECTORS_{I,I-1}, and year and industry fixed effects (industry is defined using the Fama-French 49 industry portfolios). Observation count and a measure of fit (pseudo R-squared) are also shown. The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

231. See M. P. Narayanan et al., The Economic Impact of Backdating of Executive Stock Options, 105 MICH. L. REV. 1597, 1600–01 (2007); Walker, supra note 230, at 570–71.

already in-the-money by \$10/share (reflecting the strike price of \$40/share). Company A could have granted the CEO an in-the-money option on March 15, but it would have suffered negative tax and accounting consequences (as well as potentially violating Company A's own rules on options pricing). *See* David I. Walker, *Unpacking Backdating: Economic Analysis and Observations on the Stock Option Scandal*, 87 B.U. L. REV. 561, 570 (2007).

^{232.} See Narayanan et al., supra note 231, at 1601.

LAWYERS AND FOOLS

Within our universe of companies, the probability of stock-option-backdating litigation was quite small, only 32 basis points.²³³ Note, however, that with a lawyer-director, the marginal effect was a 23 basis points reduction in probability.²³⁴ In other words, in relative terms, the presence of a lawyer-director diminished the likelihood of stock option backdating litigation by nearly 78%.²³⁵ A one standard deviation increase in Predicted JD_{*i*,*t*-1} using Model (2) was associated with a 22.9% decline in the probability of backdating litigation.²³⁶

Evidence on the relationship between board independence and fraudulent disclosure is mixed. In theory, independent directors ensure the honesty of a firm's financial reporting—a principal reason why listed firms are required to have an audit committee composed of independent directors.²³⁷ In addition, there is evidence that independent directors help control fraud,²³⁸ but that evidence is also consistent with the possibility that fraud-doers simply avoid independent director oversight.²³⁹ The evidence is also mixed on financial reporting.²⁴⁰ Although not dispositive, our analysis suggests that a focus on only independence may be misplaced. A lawyer-director minimizes the probability of stock option backdating, consistent with the possibility that the training and experience of members of the board may also be an important part of the analysis.

IV. THE (POST-)MODERN CORPORATION—RISK TAKING, FIRM VALUE, AND THE MANAGING BOARD

It may be useful to quickly take stock of where we are. Lawyer-directors are special; their value extends beyond traditional monitoring and agency cost reduction. They bring to the board the ability to spot issues, and they provide a

^{233.} This estimate is based on unconditional probability as reported in Appendix B.

^{234.} This is because the marginal effect in the Probit Model (1) in Table 4 is -0.0023, corresponding to the coefficient estimate of -0.79.

^{235.} This amount is calculated as the ratio of the marginal effect of -0.0023 to the average unconditional probability of option backdating of 0.0032 as reported in Appendix B.

^{236.} This amount is the marginal effect coefficient of -0.0041 (which corresponds to the estimated coefficient of -0.93), multiplied by the standard deviation in Predicted JD_{*i*,*t*-1} of 0.179 as reported in Appendix B, divided by the average unconditional probability of option backdating of 0.0032 as reported in Appendix B.

^{237.} See supra note 72 and accompanying text.

^{238.} See, e.g., Mark S. Beasley, An Empirical Analysis of the Relation Between the Board of Director Composition and Financial Statement Fraud, 71 ACCT. REV. 443, 454–56 (1996); Patricia M. Dechow et al., Causes and Consequences of Earnings Manipulation: An Analysis of Firms Subject to Enforcement Actions by the SEC, 13 CONTEMP. ACCT. RES. 1, 4–5, 21–22, 30 (1996); Hatice Uzun et al., Board Composition and Corporate Fraud, 60 FIN. ANALYSTS J. 33, 33, 41–42 (2004). Not all studies have found a correlation between independence and a reduction in illegal activities. For example, one study found that firms with a majority of outside directors were not involved in fewer illegal acts than firms with a majority of inside directors. See Idalene F. Kesner et al., Board Composition and the Commission of Illegal Acts: An Investigation of Fortune 500 Companies, 29 ACAD. MGMT. J. 789, 795 (1986).

^{239.} See Bhagat & Black, supra note 16, at 233 (describing the lack of evidence that increasing the number of independent directors on the board is an adequate response to business troubles).

^{240.} See id.

perspective on decisions based on training, experience, and judgment that nonlawyers may not have.²⁴¹ Although CEO compensation can increase with a lawyer-director,²⁴² it is also more likely to be made up of stock and other instruments that provide the CEO with risk-reducing incentives.²⁴³ In addition, lawyer-directors bring important management benefits to the firm, including an expertise in litigation and regulation. Businesses with intangible assets, such as patents, are more likely to include lawyer-directors who can assist in protecting those assets,²⁴⁴ and firms involved in other types of litigation are also more likely to have a lawyer on the board.²⁴⁵ Lawyer-directors also influence a firm's board structure and takeover protections. Although the changes may weaken shareholder oversight over directors to join the board, providing valuable advice to the CEO.²⁴⁶ Finally, using stock option backdating as a proxy, board integrity (in relation to public financial disclosures) also benefits from having a lawyer on the board.²⁴⁷

In this Part, we consider the effect of having a lawyer-director on firm risk-taking and firm value. Our particular concern is whether the level of risk that results from having a lawyer-director increases or decreases firm value. We also focus on the channels through which a lawyer-director can influence both outcomes.

A. RISK-TAKING

At the outset, one might ask whether diversified shareholders should value the change in risk-taking that results from having a lawyer on the board. Within the contractarian model, investors can inexpensively manage risk on their own by diversifying their holdings across a portfolio of firms.²⁴⁸ On that basis, it may not be efficient for a lawyer-director to manage risk on the investors' behalf, unless she can do so in ways that shareholders cannot duplicate for themselves. Directors and managers, for example, are able to access confidential information, giving them an edge over shareholders in assessing and managing a firm's risk.²⁴⁹ As with risk management generally, they can use that informa-

^{241.} See supra notes 6-7 and accompanying text.

^{242.} See supra Table 2, Panel B, and accompanying text.

^{243.} See supra Table 2, Panel A, and accompanying text.

^{244.} See supra Table 1 and accompanying text.

^{245.} See supra Table 1 and accompanying text; see also Ronald J. Gilson, *The Devolution of the Legal Profession: A Demand Side Perspective*, 49 MD. L. REV. 869, 902–03 (1990) (explaining the value to a corporation of having in-house legal knowledge, rather than relying on outside counsel). Greater complexity also raises the probability of having a lawyer on the board. See supra Table 1 and accompanying text.

^{246.} See supra notes 214-17, 220, 225-26 and accompanying text.

^{247.} See supra Table 4 and accompanying text.

^{248.} See Fama & Jensen, supra note 52, at 302-03.

^{249.} See Lisa K. Meulbroek, A Senior Manager's Guide to Integrated Risk Management, 14 J. APPLIED CORP. FIN. 56, 58 (2002).

LAWYERS AND FOOLS

tion to reduce the firm's cash flow instability, freeing up capital that would otherwise be set aside against the risk of future losses.²⁵⁰ Increased cash flow predictability may also permit firms to make additional value-enhancing investments using internal funds that are less costly than equity or debt,²⁵¹ increasing firm value over time²⁵² and, as the investments generate new revenues, further reducing the firm's cost of financing.²⁵³ In addition, the firm may lower the real costs of financial distress-such as bankruptcy costs, indirect costs from a decline in market competitiveness, and risk premiums demanded by customers, suppliers, and employees.²⁵⁴ The firm can also increase its debt capacity²⁵⁵ without requiring the increase in the cost of debt predicted by the Miller-Modigliani irrelevancy propositions.²⁵⁶ Finally, shareholders may be better able to manage their own portfolio risk, reducing their expected returns on equity and, in turn, the firm's cost of capital.²⁵⁷ None of those real benefits can be duplicated at the shareholder level. A value-maximizing firm, therefore, has an incentive to manage its risk-taking to the extent that doing so creates greater value for its shareholders.

In Table 5, Panel A, below, we relate two dependent variables, $ZSCORE_{i,t}$ and $IMPLVOL_{i,t}$, to proxies for having a lawyer-director on the board. $ZSCORE_{i,t}$ and $IMPLVOL_{i,t}$ are distinct measures of risk; Z-Score is a measure of the risk of insolvency,²⁵⁸ and implied volatility is a more general measure of risk.²⁵⁹

252. *See* George Allayannis et al., Earnings Volatility, Cash Flow Volatility, and Firm Value 3, 26–27 (Dec. 2005) (unpublished manuscript), *available at* http://faculty.fuqua.duke.edu/seminarscalendar/Rountree.doc (finding that cash flow volatility is negatively associated with firm value, whereas earnings volatility is more likely to be positively valued).

253. See Minton & Schrand, supra note 251, at 449–55, 456 tbl.8 (demonstrating that volatility is directly related to the costs of accessing external capital).

255. See Walter Dolde, Hedging, Leverage, and Primitive Risk, 4 J. FIN. ENGINEERING 187, 200–13 (1995).

256. See Franco Modigliani & Merton H. Miller, *The Cost of Capital, Corporation Finance and the Theory of Investment*, 48 AM. ECON. REV. 261, 261–71 (1958).

257. See Christopher Géczy et al., Why Firms Use Currency Derivatives, 52 J. FIN. 1323, 1328 (1997) (theorizing how firms can reduce financial distress associated with long-term debt).

258. The Z-Score was introduced by Edward I. Altman in *Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy*, 23 J. FIN. 589 (1968). This measure is a linear combination of five common business ratios related to the risk of insolvency. Altman developed the Z-Score using a sample of 66 firms, of which 33 had filed for bankruptcy and 33 had not. Based on a review of those firms, he concluded that companies with a Z-Score above 2.99 were safe from bankruptcy, and those below 1.81 were almost certain to go bankrupt. *See id.* at 606. In a series of subsequent tests covering three periods over 30 years (until 1999), the model was accurate in 80–90% of the cases in

^{250.} See Brian W. Nocco & René M. Stulz, Enterprise Risk Management: Theory and Practice, 18 J. APPLIED CORP. FIN. 8, 11–14 (2006).

^{251.} See Kenneth A. Froot et al., Risk Management: Coordinating Corporate Investment and Financing Policies, 48 J. FIN. 1629, 1630–31 (1993); Bernadette A. Minton & Catherine Schrand, The Impact of Cash Flow Volatility on Discretionary Investment and the Costs of Debt and Equity Financing, 54 J. FIN. ECON. 423, 438–40 (1999).

^{254.} See Lisa K. Meulbroek, The Efficiency of Equity-Linked Compensation: Understanding the Full Cost of Awarding Executive Stock Options, 30 FIN. MGMT. 5, 35 (2001); Clifford W. Smith & René M. Stulz, The Determinants of Firms' Hedging Policies, 20 J. FIN. & QUANTITATIVE ANALYSIS 391, 395–98 (1985).

		L 7	Fable 5—	-Panel A	. Risk-T	aking ar	nd Lawye	er-Directo)rs.			
Dependent Variables:			ZSCO	$\mathbf{RE}_{i,t}$					IMPL	VOL _{i,t}		
	OLS	2SLS	OLS	OLS	SIO	SIO	SIO	2SLS	SIO	OLS	OLS	SIO
Variable:	(1)	(2)	(3)	(4)	(5)	(9)	(1)	(8)	(6)	(10)	(11)	(12)
$\mathrm{JD}_{i,i-I}$	0.11^{***} (3.77)						004** (2.33)					
Predicted $JD_{i,t-I}$		0.31** (2.49)						053** (2.10)				
JD_OUTSIDE _{i,1-1}			0.084*** (2.89)						002** (2.66)			
JD_CHAIRMAN _{it-1}				0.57** (2.74)						019*** (3.23)		
JD_CHAIR_RISKCOM _{it-1}					0.11^{**} (3.43)						004** (3.3)	
JD_RISKCOM _{i,1-1}						0.07** (2.95)						-0.009* (2.21)
Observations	11,743	11,743	11,743	11,743	11,743	11,743	8,132	8,132	8,132	8,132	8,132	8,132
Adj. R-squared (%)	29.5%	30.1%	29.4%	30.3%	29.7%	29.3%	51.4%	51.6%	52.5%	52.7%	52.6%	52.4%
This panel presents summ Predicted $ID_{i,r-1}$, JD_OUTSIL brevity, do not show) CEO D effects (industry is defined usi 5%, and 10% levels, respective	ary coefficien E_{it-1} , JD_CH $ELTA_{i,t-1}$, CE ng the Fama-I sly.	t estimates of [AIRMAN $_{i,i-1}$] 30 VEGA $_{i,i-1}$ 37 ench 49 indi	f regressions o , JD_CHAIR_ , NYSE-Listec , ustry portfolio:	if two measur RISKCOM $_{it^{-1}}$, $J_{i,t^{-1}}$, SIZE $_{i,t^{-1}}$ s). Observatio	es of risk-tak - <i>i</i> , and JD_R] <i>i</i> , AVSALES in count and <i>i</i>	cing—ZSCOF ISKCOM _{tir-1} . GROWTH _{itr-} a measure of f	E _{<i>it</i>} and IMPL We calculated <i>t</i> , DIVIDEND fit (adjusted R-	VOL _{<i>it</i>} —to diff. Predicted JD _{<i>it</i>} . S_{it-1} , CASH _{<i>it</i>} . squared) are al.	erent specificati ⁻¹ using Model - ¹ , OUTSIDE_E so shown. The *	ions of lawyer-di (1) in Table 2. W JIRECTORS _{<i>i</i>,<i>i</i>-<i>i</i>, ***, **, and * ind}	rectors on the l e also controlle and year and licate significar	board: $JD_{i,i-1}$, d for (but, for ndustry fixed nce at the 1%,

456

The Georgetown Law Journal [Vol. 102:413

Note that a higher Z-Score is interpreted as a lower risk of bankruptcy, whereas higher implied volatility is interpreted as a higher level of corporate risk. Z-Score is also a historical measure of risk (because it is calculated on the basis of historical accounting data), whereas implied volatility is a forward-looking measure of risk (because it is derived from traded option prices).²⁶⁰ The proxies for having a lawyer-director are $JD_{i,t-1}$, Predicted $JD_{i,t-1}$, $JD_OUTSIDE_{i,t-1}$ (when a lawyer-director is not an employee), JD_CHAIRMAN_{i,t-1} (when a lawyer-director is also chairman of the board), JD_RISKCOM_{*i*,*t*-1} (when a lawyer-director is a member of the board's risk management committee), and JD_CHAIR_RISKCOM_{*i*,*t*-1} (when a lawyer-director is chairman of the board's risk management committee). As Panel A indicates, in general, having a lawyer on the board results in lower risk-taking, and the risk-reducing effect is even more significant when the lawyer-director has a more prominent role on the board. In addition, we find that lawyer-directors who are insiders (for example, lawyer-CEOs who are also directors) are more likely to reduce corporate risk than outside lawyer-directors.

Table 5's regression analysis included the same control variables as in Table 2: NYSE-Listed_{*i*,*t*-1}, SIZE_{*i*,*t*-1}, AVSALESGROWTH_{*i*,*t*-1}, DIVIDENDS_{*i*,*t*-1}, CASH_{*i*,*t*-1}, OUTSIDE_DIRECTORS_{*i*,*t*-1}, and year and industry indicator variables. We expected those variables to influence a firm's risk choices. Listing on the NYSE, NYSE-Listed_{*i*,*t*-1}, relates to risk because listed firms are subject to higher levels of corporate governance regulation (and related litigation).²⁶¹ Firms with large total assets, SIZE_{*i*,*t*-1}, tend to be more conservative in their investment choices because their investments are greater—and potentially less risky—than the investments of average firms (assuming that a project's riskiness is inverse to its size).²⁶² Firms with high average sales growth, AVSALESGROWTH_{*i*,*t*-1}, are more likely to make new (and potentially risky)

predicting bankruptcy one year before the event (with a false negative of approximately 15–20%). See Edward I. Altman, *Predicting Financial Distress of Companies: Revisiting the Z-Score and ZETA Models* 17–18, 21–22 (NYU Working Paper, 2000), *available at* http://pages.stern.nyu.edu/~ealtman/ PredFnclDistr.pdf.

^{259.} The implied volatility of a stock option contract is a value, related to the shares underlying the option, that will return a theoretical price equal to the then-current market price of the option. As first suggested by Fischer Black & Myron Scholes, *The Pricing of Options and Corporate Liabilities*, 81 J. POL. ECON. 637 (1973), implied volatility is a forward-looking measure of risk. *See also* Charles Cao et al., *The Information Content of Option-Implied Volatility for Credit Default Swap Valuation*, 13 J. FIN. MARKETS 321, 331 (2010). For purposes of this Article, we calculated a company's implied volatility by finding the implied volatility of exchange-traded, standardized European-style call options with a ninety-day maturity on that company's shares, and then averaging the implied volatility for each calendar year.

^{260.} The correlation between the two dependent variables is -0.189. Although they measure different aspects of corporate risk, higher levels of bankruptcy risk (a lower Z-Score) are associated with higher levels of corporate risk (higher implied volatility). The correlation coefficient is negative because Z-Score is a measure of safety and implied volatility is a measure of risk.

^{261.} See supra note 126 and accompanying text.

^{262.} See Kose John et al., Corporate Governance and Risk-Taking, 63 J. FIN. 1679, 1681 (2008).

investments in order to continue growing.²⁶³ However, firms that have an established history of paying dividends, DIVIDENDS_{*i*,*t*-1}, may be more likely to pursue conservative projects in order to maintain the cash flow necessary to continue doing so.²⁶⁴ In addition, firms that generate significant cash reserves, CASH_{*i*,*t*-1}, may be established in their industry and, therefore, less willing to pursue risky ventures. Self-interested managers, however, may decide to invest those reserves in risky projects that are value-destroying, in which case, firms with greater CASH_{*i*,*t*-1} may also take on greater risk.²⁶⁵ In controlling for the proportion of outside directors on the board, OUTSIDE_DIRECTORS_{*i*,*t*-1}, our goal was to determine whether the effect of lawyer-directors is analogous to the effect of any other outside director or whether lawyer-directors have special features.

In addition, we controlled for CEO DELTA_{*i*,*t*-1} and CEO VEGA_{*i*,*t*-1}.²⁶⁶ Those variables were used to check whether there is still a role for lawyerdirectors to reduce risk after controlling for CEO incentives. Empirically, a higher CEO DELTA_{*i*,*t*-1} has corresponded to lower corporate risk,²⁶⁷ and CEOs with higher CEO VEGA_{*i*,*t*-1} are more likely to implement riskier policies (such as greater investment in research and development).²⁶⁸

Our findings show that a lawyer-director, under all proxies for having a lawyer on the board, reduces risk as measured by $ZSCORE_{i,t}$ and $IMPLVOL_{i,t}$. Turning to the economic significance of the results, we also found the following:

- Based on the coefficients in Panel A, adding a lawyer-director results in a 6.6% increase in Z-Score²⁶⁹ and a 1% decrease in implied volatility.²⁷⁰ Because implied volatility is a generic measure of risk and Z-Score measures bankruptcy risk, we can conclude that a lawyer-director's presence has a greater impact on reducing the risk of corporate default.
- Our results on the economic impact on risk remain significant if we use Predicted $JD_{i,t-1}$. A one standard deviation increase in Predicted $JD_{i,t-1}$ is associated with a 3.3% increase in Z-Score, indicating a reduction in

^{263.} See id. (finding that higher firm-level riskiness is positively associated with firm-level growth). 264. See Alon Brav et al., Payout Policy in the 21st Century, 77 J. FIN. ECON. 483, 490 (2005) (based on manager interviews, finding that firms are more likely to pass up new net present value investment projects before cutting dividends).

^{265.} See id.

^{266.} We also considered INSTITUTIONAL OWN_{*i*,*i*-*i*} but did not include it as a formal control because it was statistically insignificant.

^{267.} See Coles et al., supra note 179, at 432 (discussing how increased delta exposes managers to more risk). For a description of delta, see supra note 179 and accompanying text.

^{268.} See Coles et al., supra note 179, at 432–33. For a description of vega, see supra note 180–81 and accompanying text.

^{269.} This amount is equal to the coefficient estimate of 0.11 divided by the average Z-Score of 1.659 (as set out in Appendix B, Panel A).

^{270.} This amount is equal to the coefficient estimate of -0.004 divided by average implied volatility of 0.401 (as set out in Appendix B, Panel A).

bankruptcy risk.²⁷¹ Likewise, a one standard deviation increase in Predicted $JD_{i,t-1}$ is associated with a 2.4% decrease in implied volatility.²⁷²

- The foregoing results are higher still if the lawyer-director is also the board's chairman. In that instance, Z-Score rises significantly, by 34.4%,²⁷³ while implied volatility drops by 4.74%.²⁷⁴
- Note that the economic effect of nonexecutive lawyer-directors (JD_OUTSIDE_{*i*,*t*-1}) on risk reduction is less significant than the impact of JD_{*i*,*t*-1}. Thus, executive lawyer-directors (such as lawyer-CEOs who are also directors) are likely to reduce corporate risk more significantly than outside lawyer-directors.²⁷⁵
- Our results on lawyer-directors and corporate risk-taking are robust after performing first-difference regressions that control for all firm characteristics.²⁷⁶

Next, in Panels B, C, and D, we considered the channels through which a lawyer-director could lower risk. Our hypothesis was that lawyer-directors affect risk through CEO compensation and efficient litigation management. Recall that lawyer-directors change a firm's CEO incentive structures (CEO DELTA_{*i*,*t*-1} and CEO VEGA_{*i*,*t*-1}),²⁷⁷ and so, in Panel B, we analyzed the impact of that change on a firm's risk-taking. In Panels C and D, because the probability of future litigation is a determinant of having a lawyer-director,²⁷⁸ we also analyzed the combined impact of lawyer-directors and litigation on a firm's risk-taking. The results in each of those panels supported our views.

To test the first channel, CEO compensation, we studied the impact on risk-taking of the interaction between having a lawyer-director and CEO incentives—CEO DELTA_{*i*,*t*-1} and CEO VEGA_{*i*,*t*-1}. We expected higher CEO DELTA_{*i*,*t*-1} to lower corporate risk-taking and for its interaction with $JD_{i,t-1}$ to further reduce the level of risk incurred by the firm. We also expected higher levels of CEO VEGA_{*i*,*t*-1} to increase corporate risk-taking but for that effect to

^{271.} This amount is calculated as the coefficient estimate of 0.31, multiplied by one standard deviation in Predicted $JD_{i,t-1}$ of 0.179, divided by an average Z-Score of 1.659 (as set out in Appendix B, Panel A).

^{272.} This amount is calculated as the coefficient estimate of -0.053, multiplied by one standard deviation in Predicted JD_{*i*,*i*-1} of 0.179, divided by average implied volatility of 0.401 (as set out in Appendix B, Panel A).

^{273.} This amount is equal to the coefficient estimate of 0.57 divided by the average Z-Score of 1.659 (as set out in Appendix B, Panel A).

^{274.} This amount is equal to the coefficient estimate of -0.019 divided by the average implied volatility of 0.401 (as set out in Appendix B, Panel A).

^{275.} When we restrict $JD_{i,I-1}$ to exclude $JD_OUTSIDE_{i,I-1}$, the coefficient estimate of lawyerdirectors that are not $JD_OUTSIDE_{i,I-1}$ is still significant at the 1% level and increases from 0.11 to 0.12. Likewise, the presence of an executive lawyer-director is associated with an increase in firm value. *See infra* note 317 and accompanying text.

^{276.} The results are set out in Appendix C, which confirm the negative impact of $JD_{i,t}$ on corporate risk-taking.

^{277.} See supra Table 2, Panel A, and accompanying text.

^{278.} See supra Table 1 and accompanying text.

be reversed if a lawyer is on the board.

- As anticipated, CEO DELTA_{*i*,*t*-1} increases Z-Score and decreases implied volatility. Its interaction with JD_{*i*,*t*-1} further increases Z-Score and further decreases implied volatility. More importantly, the presence of a lawyer-director increases the risk-reducing effect of CEO DELTA_{*i*,*t*-1} on Z-Score by $64\%^{279}$ and on implied volatility by $121\%^{280}$.
- Next, as anticipated, the effect of CEO VEGA_{*i*,*t*-1} is to increase risk. Its interaction with $JD_{i,t-1}$ reduces risk, as measured by Z-Score, by nearly 92% and reduces risk, when measured as implied volatility, by nearly 30%.²⁸¹
- We see the same qualitative results when we examine the alternative roles played by lawyer-directors, such as chairman of the board or chairman of the risk management committee.

We also investigated the effect on corporate risk of a lawyer-director's influence on board structure and takeover protections using the same controls as in Table 5, Panel, B.²⁸² BOARDSIZE_{*i*,*t*-1}, EINDEX_{*i*,*t*-1}, and STAGGERED_{*i*,*t*-1} have a negative impact on corporate risk-taking.²⁸³ We obtained the same qualitative results when we considered the effect of a lawyer-director on those variables.²⁸⁴ Conversely, having a CEO who is also chairman of the board, CEOCHAIR_{*i*,*t*-1}, increases corporate risk-taking, but the result is reversed when there is a lawyer on the board.²⁸⁵

In Panels C and D, we studied the influence of lawyer-directors on risk through their management of litigation. We split litigation into two panels. In the first, we included patent litigation, PATENT_LIT_{*i*,*t*-1} (patent litigation). In the second, we included SECURITIES_LAW_{*i*,*t*-1} (securities law litigation),

^{279.} This amount is calculated as the ratio of the coefficient of $JD_{i,t-1} * CEO DELTA_{i,t-1}$ of 0.0001 to the coefficient of CEO DELTA_{*i*,*t*-1} of 0.000156.

^{280.} This amount is calculated as the ratio of the coefficient of $JD_{i,t-1} * CEO DELTA_{i,t-1}$ of -0.0001 to the coefficient of CEO DELTA_{*i*,*t*-1} of -0.0000826.

^{281.} The economic effect on Z-Score is estimated as the ratio of the coefficient estimate for $JD_{i,t-1}$ * CEO VEGA_{*i*,*t*-1} of 0.001 to the CEO VEGA_{*i*,*t*-1} coefficient estimate of -0.00108. The economic effect on implied volatility is estimated as the ratio of the coefficient estimate for $JD_{i,t-1}$ * CEO VEGA_{*i*,*t*-1} of -0.0001 to the CEO VEGA_{*i*,*t*-1} coefficient estimate of 0.00033.

^{282.} Those results have not been tabulated because most of the coefficient estimates are not statistically significant.

^{283.} These results appear online at http://georgetownlawjournal.org/articles/lawyers-and-fools/.

^{284.} These results appear online at http://georgetownlawjournal.org/articles/lawyers-and-fools/.

^{285.} Specifically, CEOCHAIR_{*i*,*i*-1} has a negative effect on ZSCORE_{*i*,*i*}. That effect is statistically significant at the 10% level and corresponds to a 4.5% decrease in ZSCORE_{*i*,*i*}. Similarly, CEOCHAIR_{*i*,*i*} has a positive effect on IMPLVOL_{*i*,*i*}. The effect is statistically significant at the 10% level and corresponds to a 1.7% increase in IMPLVOL_{*i*,*i*}. When CEOCHAIR_{*i*,*i*-1} is interacted with a lawyer-director, the effect on ZSCORE_{*i*,*i*} is not statistically significant, but its economic significance corresponds to a 2.71% increase in ZSCORE_{*i*,*i*} Similarly, when CEOCHAIR_{*i*,*i*-1} is interacted with a lawyer-director, the effect on IMPLVOL_{*i*,*i*} is not statistically significant, but its economic effect orresponds to a 2.2% decrease in IMPLVOL_{*i*,*i*}.

	Interactio DEI	ns with CEO LTA _{i,t-1}	Interactions wi	th CEO VEGA _{i,t-1}
	Z-SCORE _{i.t}	IMPL-VOL _{i,t}	Z-SCORE _{i,t}	IMPL-VOL _{i,t}
Variable:	(1)	(2)	(3)	(4)
$JD_{i,t-I}$	0.0001***	-0.0001**	0.001***	-0.0001**
	(3.95)	(2.28)	(4.15)	(2.38)
Predicted $JD_{i,t-1}$	0.0001***	-0.0001**	0.0006***	-0.0001***
	(3.79)	(2.35)	(3.42)	(3.66)
JD_OUTSIDE _{i,t-1}	0.0001*	-0.0001**	0.0008***	-0.0001***
	(1.73)	(2.1)	(3.66)	(3.63)
JD_CHAIRMAN _{i,t-1}	0.0001**	-0.0001*	0.0001**	-0.0001*
	(2.11)	(1.94)	(2.01)	(1.67)
JD_RISKCOM _{<i>i</i>,<i>t</i>-1}	0.0001**	-0.0001*	0.0007***	0.00016*
	(2.53)	(1.88)	(4.12)	(1.71)
JD_CHAIR_RISKCOM _{i,t-1}	0.0001*	-0.0001*	0.0009**	-0.0001*
	(1.64)	(1.93)	(2.54)	(1.78)

Table 5—Panel B. Risk-Taking and Lawyer-Directors.

This panel presents summary coefficient estimates of regressions similar to those in Table 5, Panel A, with the dependent variables being ZSCORE_{*i,i*} and IMPLVOL_{*i,n*}, and interactions of CEO DELTA_{*i,i*} and CEO VEGA_{*i,i*} with the main explanatory variables $JD_{i,t-1}$, $JD_{OUTSIDE_{i,t-1}}$, $JD_{OUTSIDE_{$

CLASSACTION_{*i*,*t*-1} (class action litigation), and ACCOUNTING_LIT_{*i*,*t*-1} (accounting malpractice litigation). Patent litigation can reduce risk by defining the ownership boundaries of a firm's assets, particularly intangible assets like patents. We expected that having a lawyer on the board would have a risk-reducing effect, which would be stronger for firms with more intangible assets. The second three categories were expected to increase firm risk by potentially reducing firm profitability. Accordingly, we expected lawyer-directors to help manage litigation efficiently, and by doing so, to reduce the impact of such litigation on firm risk.

Our findings in Panel C support our hypothesis. First, as shown in Models (1) and (3), patent litigation increases Z-Score (in other words, decreases risk), as does its interaction with $JD_{i,t-1}$. Second, in Models (2) and (4), patent litigation decreases implied volatility (in other words, decreases risk), as does its interaction with $JD_{i,t-1}$. Third, we note the relative economic effect of $JD_{i,t-1}$ on risk through its interaction with patent litigation. Using Model (1), for example, the presence of a lawyer-director increases the risk-reducing effect of patent litigation by an additional 60%. The relative economic effect is even stronger when measured through implied volatility in Model (2). There, the

		Dependent	t Variables:	
	Z-SCORE _{i,t}	IMPL-VOL _{i,t}	Z-SCORE _{i,t}	IMPL-VOL _{i,t}
Variable:	(1)	(2)	(3)	(4)
PATENT_LIT _{i,t-1}	0.1203* (1.71)	-0.002* (1.74)	0.124** (2.6)	-0.0006* (1.74)
INTANGIBLE ASSETS $_{i,t-1}$			-0.2882*** (2.89)	0.005* (1.84)
$JD_{i,t-1}$	0.1035*** (3.4)	-0.0021* (1.71)	0.107*** (3.52)	-0.002*** (2.76)
PATENT_LIT _{<i>i,t-1</i>} * INTANGIBLE ASSETS _{<i>i,t-1</i>}			0.07** (2.30)	-0.03** (1.74)
$\begin{array}{l} \text{PATENT_LIT}_{i,t-1} * \\ \text{JD}_{i,t-1} \end{array}$	0.072** (1.98)	-0.0141* (1.81)	0.0167** (2.19)	-0.013** (1.61)
$JD_{i,t-1} * PATENT_LIT_{i,t-1} * INTANGIBLE ASSETS_{i,t-1}$			0.5225** (2.32)	-0.007** (2.29)
Observations	11,743	8,132	11,743	8,132
Adj. R-squared	26.3%	51.1%	26.7%	51.5%

Table 5—Panel C. Risk-Taking and Lawyer-Directors.

This panel presents summary coefficient estimates from regressions similar to those in Table 5, Panel A, with the dependent variables being $\text{ZSCORE}_{i,t}$ and $\text{IMPLVOL}_{i,t}$ and the main explanatory variables being $\text{JD}_{i,t-1}$, PATENT_ $\text{LIT}_{i,t-1}$, and the interaction between these two variables in Models (1) and (2); and $\text{JD}_{i,t-1}$, INTANGIBLE ASSETS_{*i*,*t*-*t*}, PATENT_ $\text{LIT}_{i,t-1}$, and the interactions among these three variables in Models (3) and (4). We also controlled for (but, for brevity, do not show) CEO DELTA_{*i*,*t*-1}, CEO VEGA_{*i*,*t*-1}, NYSE-Listed_{*i*,*t*-1}, SIZE_{*i*,*t*-1}, AVSALESGROWTH_{*i*,*t*-1}, DIVIDEND- $\text{S}_{i,t-1}$, OUTSIDE_DIRECTORS_{*i*,*t*-1}, year and industry fixed effects (industry is defined using the Fama-French 49 industry portfolios). Observation count and a measure of fit (adjusted R-squared) are also shown. The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

risk-reducing effect of patent litigation is amplified by 700%²⁸⁶ if there is a lawyer-director. In Model (3), the relative economic effect of patent litigation on risk-taking if there is a lawyer-director is 421% greater for firms having a high level of intangible assets compared to firms with a low level of intangible assets.²⁸⁷ Similar calculations of the relative economic effect on implied volatility in Model (4) yield a relative risk reduction of nearly 117%.²⁸⁸

In Panel D, we studied the effect of a lawyer-director on risk when considering nonpatent litigation. Our findings also support our hypothesis.

Accounting malpractice, securities law, and class action litigation increase a firm's level of risk as measured by Z-Score or implied volatility. This increase is economically meaningful. For example, if there is accounting malpractice

^{286.} This amount is the ratio of the coefficients, -0.0141 and -0.002.

^{287.} This amount is the ratio of the coefficient of the triple interaction, 0.5225, to the coefficient of patent litigation, 0.124.

^{288.} This amount is the ratio of the coefficient of the triple interaction, -0.007, to the coefficient of patent litigation, -0.006.

-	Dependent Variables		
	Z-SCORE _{i,t}	IMPL-VOL _{i,t}	
Securities Law Litigation (SECURITIES_LIT _{i,t-1})			
$\mathrm{JD}_{i,t-1}$	0.0721** (2.43)	-0.0007** (2.26)	
SECURITIES _LIT _{i,t-1}	-0.4717*** (3.33)	0.0514*** (5.31)	
SECURITIES_LIT _{<i>i</i>,<i>t</i>-1} * JD _{<i>i</i>,<i>t</i>-1}	0.376** (2.25)	-0.0056* (1.74)	
Class Action Litigation (CLASSACTION_LIT _{i,t-1})			
$\mathrm{ID}_{i,t-1}$	0.0755** (2.47)	0.0018* (1.72)	
CLASSACTION_LIT _{i,t-1}	-0.2972*** (2.83)	0.0453*** (5.94)	
CLASSACTION_LIT _{<i>i</i>,<i>t</i>-1} * JD _{<i>i</i>,<i>t</i>-1}	0.204*** (2.73)	-0.0152* (1.89)	
Accounting Malpractice Litigation (ACCOUNTING_LIT _{i,t-1})			
$\mathrm{JD}_{i,t-1}$	0.0873*** (2.97)	-0.0009** (2.31)	
ACCOUNTING_LIT _{i,t-1}	-0.5813** (2.45)	0.0877*** (4.92)	
ACCOUNTING_LIT _{<i>i</i>,<i>t</i>-1} * JD _{<i>i</i>,<i>t</i>-1}	0.357** (2.24)	-0.0262** (2.14)	

Table 5—Panel D. Risk-Taking and Lawyer-Directors.

This panel presents summary coefficient estimates of regressions similar to those in Table 5, Panel A, with the dependent variables being $\text{JSCORE}_{i,I}$ and $\text{IMPLVOL}_{i,I}$ and the main explanatory variables being $\text{JD}_{i,I-I}$ and $\text{SECURITIES_LIT}_{i,I-I}$, CLASSACTION_LIT_{*i*,*I*-*I*}, and ACCOUNTING_LIT_{*i*,*I*-*I*}. Each litigation category is also interacted with $\text{JD}_{i,I-I}$. We also controlled for (but, for brevity, do not show) CEO DELTA_{*i*,*I*-*I*}, CEO VEGA_{*i*,*I*-*I*}, NYSE-Listed_{*i*,*I*-*I*}, SIZE_{*i*,*I*-*I*}, AVSALESGROWTH_{*i*,*I*-*I*}). For DIVIDENDS_{*i*,*I*-*I*}, CASH_{*i*,*I*-*I*}, OUTSIDE_DIRECTORS_{*i*,*I*-*I*}, and year and industry fixed effects (industry is defined using the Fama-French 49 industry portfolios). For brevity, observation count and a measure of fit (adjusted R-squared) are not shown. The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

litigation, bankruptcy risk is raised by nearly 35%;²⁸⁹ for securities law litigation, bankruptcy risk is raised by 28.4%;²⁹⁰ and for class action litigation, bankruptcy risk is raised by 17.9%.²⁹¹ Calculating the corresponding impact on implied volatility, we obtained 21.9% for accounting malpractice litigation,²⁹²

^{289.} This amount is the ratio of the coefficient of ACCOUNTING_LIT_{*i*,*t*-1} of -0.5813 divided by the average Z-Score of 1.659 (as set out in Appendix B, Panel A).

^{290.} This amount is the ratio of the coefficient of SECURITIES_LIT_{*i*,*t*-1} of -0.4717 divided by the average Z-Score of 1.659 (as set out in Appendix B, Panel A).

^{291.} This amount is the ratio of the coefficient of CLASSACTION_LIT_{*i*,*i*-1} of -0.2972 divided by the average Z-Score of 1.659 (as set out in Appendix B, Panel A).

^{292.} This amount is the ratio of the coefficient of ACCOUNTING_LIT_{*i*,*t*-1} of 0.0877 divided by average implied volatility of 0.401 (as set out in Appendix B, Panel A).

12.8% for securities law litigation,²⁹³ and 11.3% for class action litigation.²⁹⁴

The effect of litigation on risk drops in the presence of a lawyer-director. For example, lawyer-directors decrease the effect of accounting malpractice litigation on bankruptcy risk from a 35% increase to a 13.5% increase.²⁹⁵ Similarly, having a lawyer-director reduces the effect of securities law litigation on bankruptcy risk from a 28.4% increase to a mere 5.8% increase.²⁹⁶ Finally, for class action litigation, the presence of a lawyer-director reduces bankruptcy risk from a 17.9% increase to a 5.6% increase.²⁹⁷ Similar calculations confirm similar results for implied volatility.

The greater stability (as implied by higher Z-Score and lower implied volatility) means that firms can efficiently increase their borrowing capacity.²⁹⁸ Based on the empirical analysis we performed for risk (Table 5, Panel A), we found that the presence of a lawyer-director corresponds with a $10.5\%^{299}$ increase in leverage,³⁰⁰ which is statistically significant at the 1% level. That increase is consistent with our earlier discussion of the real benefits of lowering the costs of

296. The reduction of the effect of SECURITIES_LIT_{*i*,*i*-1} on Z-Score from 28.4% to 5.8%, a drop of 22.6%, is calculated as the coefficient estimate for SECURITIES_LIT_{*i*,*i*-1} * JD_{*i*,*i*-1} of 0.376 plus the coefficient estimate of SECURITIES_LIT_{*i*,*i*-1} of -0.4717, the sum of which is then divided by the average Z-Score of 1.659 (as set out in Appendix B, Panel A).

297. The reduction of the effect of CLASSACTION_LIT_{*i*,*l*-1} on Z-Score from 17.9% to 5.6%, a drop of 12.3%, is calculated as the coefficient estimate for CLASSACTION_LIT_{*i*,*l*-1} * JD_{*i*,*l*-1} of 0.204 plus the coefficient estimate of CLASSACTION_LIT_{*i*,*l*-1} of -0.2972, the sum of which is then divided by the average Z-Score of 1.659 (as set out in Appendix B, Panel A). Note that this finding is consistent with the finding that more independent boards are less likely to be subject to shareholder lawsuits. *See* Eric Helland & Michael Sykuta, *Who's Monitoring the Monitor? Do Outside Directors Protect Shareholders' Interests*, 40 FIN. REV. 155, 157 (2005).

298. See Michael Faulkender & Mitchell A. Petersen, Does the Source of Capital Affect Capital Structure?, 19 REV. FIN. STUD. 45, 48 (2006).

299. We compute this magnitude as the coefficient estimate of 0.021 divided by average leverage of 0.20.

^{293.} This amount is the ratio of the coefficient of SECURITIES_LIT_{*i*,*i*-1} of 0.0514 divided by average implied volatility of 0.401 (as set out in Appendix B, Panel A).

^{294.} This amount is the ratio of the coefficient of CLASSACTION_LIT_{*i*,*t*-1} of 0.0453 divided by average implied volatility of 0.401 (as set out in Appendix B, Panel A).

^{295.} The reduction of the effect of ACCOUNTING_LIT_{*i*,*i*-1} on Z-Score from 35% to 13.5%, a drop of 21.5%, is calculated as the coefficient estimate for ACCOUNTING_LIT_{*i*,*i*-1} * JD_{*i*,*i*-1} of 0.357 plus the coefficient estimate of ACCOUNTING_LIT_{*i*,*i*-1} of -0.5813, the sum of which is then divided by the average Z-Score of 1.659 (as set out in Appendix B, Panel A). Note that this finding is consistent with the view that independent directors look to ensure that a company's financial disclosure is accurate. *See* Fisch, *supra* note 211, at 932. One study found that independence alone does not result in a decline in the probability of a company's earnings restatement. Rather, the probability of restatement significantly declines if a board or audit committee has an independent director with financial expertise. *See* Anup Agrawal & Sahiba Chadha, *Corporate Governance and Accounting Scandals*, 48 J.L. & ECON. 371, 374 (2005).

^{300.} We compute leverage as the ratio of book debt to total assets. *See* Eugene F. Fama & Kenneth R. French, *Testing Trade-Off and Pecking Order Predictions About Dividends and Debt*, 15 REV. FIN. STUD. 1, 8–9 (2002). Book debt is defined as total assets minus total liabilities and preferred stock plus deferred taxes and convertible debt. We drop firm-year observations where the resulting book leverage is greater than one. All data used to compute leverage were retrieved from the Compustat database.

financial distress.³⁰¹ In addition to reducing financing costs, the higher levels of borrowing may also provide a monitoring benefit.³⁰² Most corporate debt is private,³⁰³ and most private lenders are banks.³⁰⁴ Banks can monitor corporate performance at low cost, relying on loan covenants—early warning "trip wires"³⁰⁵ that assist in managing credit risk³⁰⁶—to oversee the board and senior managers.³⁰⁷ Debt governance is also evolving with changes in the private credit markets. With greater liquidity, lenders can increasingly rely on the price of outstanding credit instruments to assess a firm's credit quality. Thus, if a borrower acts in a way that changes the price of its loans or other credit instruments, those changes will influence the terms on which lenders subsequently agree to extend credit. Actions that increase credit risk, consequently, will increase a borrower's cost of capital. Although covenants continue to play an important role, some portion of the traditional reliance may be offset by the "real time" discipline provided by fluctuations in the cost of capital.³⁰⁸ The greater reliance on debt governance may help to offset the negative effect of board structure and takeover protections which accompany a lawyer-director,³⁰⁹ providing an efficient substitute for the potential decline in public market

304. See Yakov Amihud et al., A New Governance Structure for Corporate Bonds, 51 STAN. L. REV. 447, 458 (1999); Joel Houston & Christopher James, Bank Information Monopolies and the Mix of Private and Public Debt Claims, 51 J. FIN. 1863, 1870–79 (1996); Marcel Kahan & Bruce Tuckman, Private vs. Public Lending: Evidence from Covenants 11–13 (UCLA, Anderson Graduate Sch. Mgmt., Working Paper No. 13–93, 1993), available at http://www.escholarship.org/uc/item/1xw4w7sk.

305. George G. Triantis & Ronald J. Daniels, *The Role of Debt in Interactive Corporate Governance*, 83 CALIF. L. REV. 1073, 1093–94 (1995).

308. See Charles K. Whitehead, The Evolution of Debt: Covenants, the Credit Market, and Corporate Governance, 34 J. CORP. L. 641, 667–70 (2009).

309. See supra Table 3 and accompanying text.

^{301.} See supra notes 248-57 and accompanying text.

^{302.} See Douglas G. Baird & Robert K. Rasmussen, The Prime Directive, 75 U. CIN. L. REV. 921, 937–39 (2007); Kose John & Lubomir Litov, Managerial Entrenchment and Capital Structure: New Evidence, 7 J. EMPIRICAL LEGAL STUD. 693, 695 (2010); Joanna M. Shepherd et al., What Else Matters for Corporate Governance?: The Case of Bank Monitoring, 88 B.U. L. REV. 991, 995–96 (2008) (positing that both contractual requirements and institutional features facilitate monitoring); see also Greg Nini et al., Creditor Control Rights, Corporate Governance, and Firm Value, 25 REV. FIN. STUD. 1713, 1713–15 (2012).

^{303.} See Arthur E. Wilmarth, Jr., *The Transformation of the U.S. Financial Services Industry*, 1975–2000: Competition, Consolidation, and Increased Risks, 2002 U. ILL. L. REV. 215, 231–39 (2002); Michael Bradley & Michael R. Roberts, The Structure and Pricing of Corporate Debt Covenants 2, 8–9 (May 13, 2004) (unpublished manuscript), available at papers.ssrn.com/sol3/papers.cfm?abstract_id=466240.

^{306.} See Daniel R. Fischel, *The Economics of Lender Liability*, 99 YALE L.J. 131, 134–35 (1989); Oliver Hart & John Moore, *Default and Renegotiation: A Dynamic Model of Debt*, 113 Q.J. ECON. 1, 2 (1998).

^{307.} See Fischel, supra note 306, at 136 ("To decrease the amount of compensation demanded, borrowers will attempt to allay lenders' concerns by agreeing to various monitoring and bonding mechanisms. An illustration of a monitoring mechanism is an agreement whereby the borrower promises to provide the lender with periodic financial information so that the lender can make more informed decisions. Examples of bonding mechanisms include the provision of personal guarantees and/or security for the loan, as well as various types of loan covenants limiting the discretion of the borrower.").

	Table	e 6-Panel A.]	Lawyer-Direct	ors and Firm	Value.		
Dependent Variable:				TOBIN _{it}			
	OLS	Tobit	2SLS	OLS	OLS	OLS	OLS
Variable:	(1)	(2)	(3)	(4)	(2)	(9)	(1)
$JD_{i,i-I}$	0.271*** (6.02)	0.274*** (6.14)					
Predicted $JD_{i,l-I}$			1.749*** (4.21)				
JD_OUTSIDE _{it-1}				0.261 * * * (6.19)			
JD_CHAIRMAN $_{i,i-1}$					0.038** (3.10)		
JD_CHAIR_COMPCOM _{it-1}						0.13 * * * (4.41)	
JD_COMPCOM _{i,i-1}							0.152*** (4.07)
Observations	10,458	10,558	8,676	10,457	10,457	10,457	10,457
Adj. R-squared	18.1%	ı	18.6%	16.5%	17.1%	17.2%	17.5%
Pseudo R-squared	ı	2.9%	ı	ı	ı	ı	ı
This panel presents OLS and Tobit mon JD_CHAIRMAN _{1,1-1} , JD_CHAIR_COMPC brevity, do not show) NYSE-Listed _{1,1-1} , SIZ Fama-French 49 industry portfolios). Model a measure of fit (adjusted R-squared for OLS	del regressions of Tob $OM_{i,i-1}$, and JD_COM $E_{i,i-1}$, AVSALESGRC (2) presents Tobit esti S and 2SLS and pseud-	in's Q on the main ind APCOM _{<i>it-1</i>} , Model (1) DWTH _{<i>it-1</i>} , DIVIDEND imates (accounting for o R-squared for the Tob	tependent variables JD_i o and Models (4)-(7) pr $SS_{i_{\ell}-I_{\ell}}$ CASH _{i,t-1} , OUT truncation at zero of the bit analyses) are also sho	<i>r-1</i> , Predicted JD _{<i>lt-1</i>} (esent OLS estimates, <i>i</i> SIDE_DIRECTORS _{<i>l</i>,<i>l</i>} , dependent variable) a wwn. The ***, **, and ¹	as the predicted value and Model (3) present: -,, and year and indust nd does not control for * indicate significance:	in Model (1) of Table s 2SLS estimates. We v ry fixed effects (indust industry fixed effects. at the 1%, 5%, and 10%	 J), JD_OUTSIDE_{i,i}, controlled for (but, for ry is defined using the Observation count and 5 levels, respectively.

The Georgetown Law Journal [Vol. 102:413

discipline.310

To summarize, our study finds that lawyer-directors lower firm risk, using ZSCORE_{*i*,*t*} and IMPLVOL_{*i*,*t*} as measures of risk-taking. The risk-reducing effect is even more significant when the lawyer-director is also the board's chairman or chairman of the risk management committee. In addition, inside lawyer-directors are more likely to reduce corporate risk more significantly than outside lawyer-directors. Their ability to reduce risk is principally through changes in CEO compensation (CEO DELTA_{*i*,*t*-1} and CEO VEGA_{*i*,*t*-1}), the efficient management of distributive litigation (SECURITIES_LAW_{*i*,*t*-1}, CLASSACTION_{*i*,*t*-1}, and ACCOUNTING_LIT_{*i*,*t*-1}) and litigation that helps define the ownership boundaries of a firm's intangible assets (PATENT_LIT_{*i*,*t*-1}), and their influence on board structure and takeover protections. The greater stability means that firms can efficiently increase their borrowing capacity, which can lower their cost of capital, as well as provide a monitoring benefit. As a result, we have the potential for an organizational structure—based on the particular characteristics of a lawyer-director—that provides greater value to shareholders.

In fact, as we discuss in the next section, having a lawyer on the board increases firm value.³¹¹ Importantly, the effect is significant even after controlling for other, outside directors. Lawyer-directors provide a particular value in excess of what is provided by nonlawyer outsiders.³¹² That value is even greater when the lawyer-director is also an employee of the firm, such as a director who is also a lawyer-CEO or lawyer-CFO.³¹³

B. TOBIN'S Q AND FIRM VALUE

Our prior analyses considered the impact of lawyer-directors on executive incentives, litigation, and risk-taking. The analyses, however, did not reveal whether lawyer-directors are efficient. In Table 6, Panel A, we considered the effect of lawyer-directors on firm value, as measured by Tobin's Q.³¹⁴ We found that having a lawyer on the board statistically increases firm value and that the result is economically significant.

Panel A shows the effect of lawyer-directors on firm value. We controlled for NYSE-Listed_{*i*,*t*-1}, SIZE_{*i*,*t*-1}, AVSALESGROWTH_{*i*,*t*-1}, DIVIDENDS_{*i*,*t*-1}, CASH_{*i*,*t*-1}, OUTSIDE_DIRECTORS_{*i*,*t*-1}, year, and industry indicator variables, except for Tobit Model (2). In both the OLS and Tobit model³¹⁵ regressions of Tobin's Q on JD_{*i*,*t*-1}, Model (1) and Model (2) show that the presence of a

^{310.} See Jensen, supra note 67, at 852.

^{311.} See infra Table 6, Panel A, and accompanying text.

^{312.} See supra note 106 and accompanying text.

^{313.} See infra notes 330-32 and accompanying text.

^{314.} Tobin's Q is described supra in note 118.

^{315.} A Tobit model is a nonlinear model proposed by James Tobin that allows for truncation of the dependent variable at zero (a non-negative dependent variable) and describes the relationship between the dependent variable and a set of independent variables. The truncation is needed because the dependent variable (the Tobin's Q), representing the ratio of the firm's market value divided by the replacement cost of its assets, cannot be negative. For the Tobit model, see James Tobin, *Estimation of*

lawyer-director statistically increases firm value. Turning to the economic significance of the results, we also found:

- Having a lawyer on the board increases Tobin's Q by 9.5%.³¹⁶ When we restrict $JD_{i,t-1}$ to exclude $JD_OUTSIDE_{i,t-1}$, having a lawyer-director who is also a company executive increases Tobin's Q by 10.2%.³¹⁷
- Our results are comparable if we use alternative specifications of lawyerdirector participation on the board, such as a lawyer-director also being chairman of the board or the compensation committee.
- There is an even stronger effect in Model (3), utilizing Predicted $JD_{i,t-1}$. A one standard deviation increase in Predicted $JD_{i,t-1}$ is associated with a nearly 10.9% increase in Tobin's Q.³¹⁸
- Our results on lawyer-directors and corporate risk-taking are robust after performing first-difference regressions that control for all firm characteristics.³¹⁹

Next, in Table 6, Panels B and C, we examined the two channels through which lawyer-directors could enhance firm value. Those two channels are the choice of CEO incentives (Panel B) and litigation management (Panel C). Our results demonstrate that a CEO enhances firm value primarily through her effect on CEO compensation and litigation, both of which cause a reduction in firm risk-taking to more efficient levels.

As Panel B indicates, even though CEO incentives can lead to an increase in firm value, that increase is amplified when a lawyer is on the board. More precisely, Panel B shows that CEO VEGA_{*i*,*t*-1} and CEO DELTA_{*i*,*t*-1} increase Tobin's Q,³²⁰ but a lawyer-director amplifies the economic effect of CEO VEGA_{*i*,*t*-1} on Tobin's Q by nearly 47.5%³²¹ and the economic effect of CEO DELTA_{*i*,*t*-1} on Tobin's Q by nearly 47.6%.³²² The influence of a lawyer-director is even greater if she has a prominent position on the board, such as chairman of

322. This amount is the ratio of the coefficient estimate of the interaction CEO DELTA_{*i*,*t*-1} * JD_{*i*,*t*-1} (0.0001) to the estimate of the coefficient of CEO DELTA_{*i*,*t*-1} (0.00021).

Relationships for Limited Dependent Variables, 26 ECONOMETRICA 24 (1958). See also Takeshi Amemiya, Tobit Models: A Survey, 24 J. ECONOMETRICS 3 (1984).

^{316.} This amount is calculated as the coefficient estimate of 0.271 divided by the average of Tobin's Q of 2.86 (as set out in Appendix B, Panel A).

^{317.} When we restrict $JD_{i,t-1}$ to exclude $JD_OUTSIDE_{i,t-1}$, the coefficient estimate of lawyerdirectors who are not $JD_OUTSIDE_{i,t-1}$ is still significant at the 1% level, increasing from 0.271 to 0.292. Note that the presence of an executive lawyer-director is also associated with an increased reduction in firm risk-taking. *See supra* note 275 and accompanying text.

^{318.} This amount is calculated as the value of the coefficient, 1.749, multiplied by the standard deviation in Predicted $JD_{i,t-1}$, 0.179, divided by the average of Tobin's Q of 2.86 (as set out in Appendix B, Panel A).

^{319.} The results are set out in Appendix C, which confirm the negative impact of $JD_{i,t-1}$ on corporate risk-taking.

^{320.} The correspondent coefficients are 0.00358 and 0.00021, both significant at the 1% level.

^{321.} This amount is the ratio of the coefficient estimate of the interaction CEO VEGA_{*i*,*t*-1} * JD_{*i*,*t*-1} (0.0017) to the estimate of the coefficient of CEO VEGA_{*i*,*t*-1} (0.00358).

Interactions of CEO VEGA _{<i>i</i>,<i>t</i>-1} with the following:	Dep. Variable: TOBIN _{i,t}	Interactions of CEO DELTA $_{i,t-I}$ with the following:	Dep. Variable: TOBIN _{i,t}
$JD_{i,t-1}$	0.0017*** (3.72)	$\mathrm{JD}_{i,t-1}$	0.0001* (1.92)
JD_OUTSIDE _{i,t-1}	0.0015*** (3.62)	JD_OUTSIDE _{i,t-1}	0.0002* (1.69)
JD_CHAIRMAN _{i,t-1}	0.0013* (1.69)	JD_CHAIRMAN _{i,t-1}	0.0002*** (3.11)
JD_CHAIR_COMPCOM _{i,t-1}	0.0018*** (3.29)	JD_CHAIR_COMPCOM _{i,t-1}	0.0001** (2.45)
JD_COMPCOM _{i,i-1}	0.0012*** (3.85)	JD_COMPCOM _{i,t-1}	0.0003** (1.97)

Table 6—Panel B. Lawyer-Directors and Firm Value.

This panel presents summary coefficient estimates of regressions similar to those in Table 6, Panel A, with the dependent variable being Tobin's Q and the explanatory variables being $JD_{i,t-1}$, $JD_OUTSIDE_{i,t-1}$, $JD_CHAIRMAN_{i,t-1}$, $JD_CHAIRMAN_{i,t-1}$, and $JD_COMPCOM_{i,t-1}$, all interacted with CEO DELTA_{i,t-1} and CEO VEGA_{i,t-1}. We controlled for (but, for brevity, do not show) NYSE-Listed_{i,t-1}, SIZE_{i,t-1}, AUSALESGROWTH_{i,t-1}, DIVIDENDS_{i,t-1}, CASH_{i,t-1}, OUTSIDE_DI-RECTORS_{i,t-1}, and year and industry fixed effects (industry is defined using the Fama-French 49 industry portfolios). The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

the compensation committee.

We also investigated the effects on firm value of a lawyer-director's influence on board structure and takeover protections using the same controls as in Table 6, Panel B.³²³ BOARDSIZE_{*i*,*t*-1}, EINDEX_{*i*,*t*-1}, CEOCHAIR_{*i*,*t*-1}, and STAGGERED_{*i*,*t*-1} have a negative impact on Tobin's Q.³²⁴ However, when those variables were interacted with a lawyer-director, our qualitative findings shifted directionally from a decrease to an increase in firm value.³²⁵

Previously, Table 5, Panels C and D showed the effect of a lawyer-director on reducing risk through the litigation channel.³²⁶ Although lawyer-directors may be better able to manage litigation than nonlawyers, we could not conclude from Table 5 whether the reduction in risk was efficient. The next panel shows the effect of litigation on firm value when there is a lawyer-director.

Securities law, class action, and accounting malpractice litigation reduce Tobin's Q (all coefficients are statistically significant at least at 5%). When there is a lawyer-director, however, the result is reversed and all coefficients are statistically significant at least at 5%.³²⁷ Patent litigation has a positive impact

^{323.} The results have not been tabulated because most of the coefficient estimates are not statistically significant.

^{324.} These results appear online at http://georgetownlawjournal.org/articles/lawyers-and-fools/.

^{325.} These results appear online at http://georgetownlawjournal.org/articles/lawyers-and-fools/.

^{326.} See supra Table 5, Panels C and D.

^{327.} This finding is consistent with an earlier study which showed that firms convicted of engaging in illegal corporate behavior experience lower accounting returns over five years and slower sales growth during years three to five. Multiple convictions increase the negative effect on longer-term performance. See Melissa S. Baucus & David A. Baucus, Paying the Piper: An Empirical Examination of Longer-Term Financial Consequences of Illegal Corporate Behavior, 40 ACAD. MGMT. J. 129,

		Dependent Va	riable: TOBIN _{i,t}	
Variable:	(1)	(2)	(3)	(4)
PATENT_LIT _{i,t-1}	0.2428*** (2.84)			
SECURITIES_LIT _{i,t-1}		-0.1091** (2.23)		
CLASSACTION_LIT _{i,I-1}			-0.1056** (2.36)	
ACCOUNTING_LIT _{i,t-1}				-0.1779*** (3.26)
PATENT_LIT _{<i>i</i>,<i>t</i>-1} $*$ JD _{<i>i</i>,<i>t</i>-1}	0.0332** (2.27)			
SECURITIES_LIT _{<i>i</i>,<i>t</i>-1} $*$ JD _{<i>i</i>,<i>t</i>-1}		0.1687*** (2.68)		
CLASSACTION_LIT _{<i>i</i>,<i>i</i>-1} * $JD_{i,i-1}$			0.0686** (2.39)	
$\begin{array}{l} \text{ACCOUNTING_LIT}_{i,t-1} * \\ \text{JD}_{i,t-1} \end{array}$				0.5478*** (3.61)
$\mathrm{JD}_{i,t-1}$	0.2406*** (5.18)	0.2213*** (4.93)	0.2369*** (5.39)	0.2322*** (5.3)
Observations	10,409	10,409	10,409	10,409
Adjusted R-squared	18.2%	17.6%	17.9%	18.4%
Relative Economic Effect	13.2%	Reversal 154.6%	Reversal 64.9%	Reversal 307.9%

Table 6—Panel C. Lawyer-Directors and Firm Value.

This panel presents the impact on Tobin's Q of $JD_{i,t-1}$ and $PATENT_LIT_{i,t-1}$, $SECURITIES_LIT_{i,t-1}$, $CLASSACTION_LIT_{i,t-1}$, and $ACCOUNTING_LIT_{i,t-1}$, where the litigation variables are also interacted with $JD_{i,t-1}$. We controlled for (but, for brevity, do not show) NYSE-Listed_{i,t-1}, SIZE_{i,t-1}, AVSALESGROWTH_{i,t-1}, DIVIDENDS_{i,t-1}, CASH_{i,t-1}, OUTSIDE_DIRECTORS_{i,t-1}, and year and industry fixed effects (industry is defined using the Fama-French 49 industry portfolios). Observation count and a measure of fit (adjusted R-squared) are also shown. The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

on firm value, and when there is a lawyer-director, the impact is even higher.

To evaluate the economic importance of the results, we referred to the estimates of Relative Economic Effect³²⁸ in Table 6, Panel C.

- Lawyer-directors increase the effect of patent litigation on firm value by 13.2%.³²⁹
- Accounting malpractice litigation reduces firm value, but the result is reversed when there is a lawyer-director. In that case, there is a nearly

^{146-47 (1997).} Thus, managing investigations (as well as minimizing illegal activities) can enhance firm value.

^{328.} Relative Economic Effect is the ratio of (i) the economic effect of the litigation category interacted with $JD_{i,l-1}$ to (ii) the economic effect of the same litigation category.

^{329.} This amount is calculated as the ratio of the coefficient estimate of PATENT_LIT_{*i*,*t*-1} * JD_{*i*,*t*-1} in Model (1) of 0.0332 to the coefficient estimate of PATENT_LIT_{*i*,*t*-1} of 0.2428.

308% increase in the effect of accounting malpractice litigation on firm value compared to when no lawyer is on the board.³³⁰

• Securities law and class action litigation reduce firm value, but the result is also reversed when there is a lawyer-director. In that case, there is an almost 155%³³¹ and almost 65%³³² increase in the effect of such litigation on firm value compared to when no lawyer is on the board.

Our results tell us that, on average, a lawyer-director increases firm value by 9.5%, an increase that rises to 10.2% when the lawyer-director is also a corporate officer. She does so primarily through her effect on CEO compensation and on litigation, both of which cause a reduction in firm risk-taking to more efficient levels as indicated by the rise in Tobin's Q. Her influence on board structure and takeover protections may also add to firm value. The influence of a lawyer-director is even greater if she has a prominent position on the board.

The results also tell us that director composition is important to understanding the board's value to shareholders. The board's primary function as an agency-cost reducer may have been appropriate in the past, but companies have grown too complex for value-maximizing boards to simply act as monitors. For some firms, greater management by the board and alternatives to traditional monitoring can increase firm value more efficiently than the standard construct. To that extent, our results caution against a one-size-fits-all approach to the board. Interfering with the ability of shareholders, directors, and other stakeholders to order their own affairs may impose a less-efficient, less-flexible model of corporate governance on organizations with vastly different needs and characteristics.

Our analysis flies in the face of regulatory and quasi-regulatory requirements that, except for financial literacy, focus predominantly on a director's independence as a means to enhance board oversight and firm value³³³ and initiatives to break up the dual CEO-chairman role.³³⁴ To some extent, our study may simply reflect the need for board composition to be flexible in order to respond to changes in the business environment.³³⁵ Rising levels of regulation and litigation³³⁶ may make lawyer-directors the current "flavor of the month." Lawyer-

^{330.} This amount is calculated as the ratio of the coefficient estimate of ACCOUNTING_LIT_{*i*,*i*-1} * JD_{*i*,*i*-1} in Model (4) of 0.5478 to the coefficient estimate of ACCOUNTING_LIT_{*i*,*i*-1} of -0.1779.

^{331.} This amount is calculated as the ratio of the coefficient estimate of SECURITIES_LIT_{*i*,*i*-1} * JD_{*i*,*i*-1} in Model (2) of 0.1687 to the coefficient estimate of SECURITIES_LIT_{*i*,*i*-1} of -0.1091.

^{332.} This amount is calculated as the ratio of the coefficient estimate of CLASSACTION_LIT_{*i*,*i*-1} * JD_{*i*,*i*-1} in Model (3) of 0.0686 to the coefficient estimate of CLASSACTION_LIT_{*i*,*i*-1} of -0.1056.

^{333.} See supra notes 71–72 and accompanying text; see also Lawrence A. Cunningham, *Rediscovering Board Expertise: Legal Implications of the Empirical Literature*, 77 U. CIN. L. REV. 465, 466 (2008) (explaining the renewed emphasis on director expertise over director independence that resulted from enactment of the Sarbanes-Oxley Act of 2002).

^{334.} See supra note 208 and accompanying text. Recall that inside lawyer-directors—perhaps due to their superior knowledge of the company—have an even greater effect on risk-taking and Tobin's Q than outsiders. See supra notes 276, 332 and accompanying text.

^{335.} See supra notes 17, 42, 82-84 and accompanying text.

^{336.} See supra note 102 and accompanying text.

directors, however, appear to add more than simply their litigation skills. Lawyer-directors also have a risk-reducing effect on CEO compensation³³⁷ and the overall level of risk a firm will assume.³³⁸ In addition, lawyer-directors have a positive effect on board structure and takeover protections that could otherwise cause a decline in firm value.³³⁹ Those outcomes appear to be less a response to litigation and regulation, and more the product of efforts by lawyer-directors to enhance internal governance. The result is greater firm value, but now based on the particular management skills and experience that directors bring to the job.

What we do not know is whether the current cost-benefit balance of having a lawyer-director is optimal—in other words, whether or not a decline in the size of the board, a further increase in the number of independent directors, or a weakening of the firm's takeover protections would provide even more value. What our study shows, however, is that it clearly matters who is on the board—and the particular training, skills, and experience that directors bring can matter as much, or perhaps even more, to firm value than whether a director is independent.

CONCLUSION

This Article is the first to analyze the value of a lawyer on the board of a public corporation. A lawyer-director's effect on risk-taking and firm value is significant, primarily through changes in CEO compensation and how litigation is managed. Our goal has not been to advocate that boards should include lawyers among their ranks³⁴⁰—although, rather than fools, it appears that lawyer-directors have some of the shrewdest clients. Rather, we have used lawyer-directors to begin unpacking the black box that houses the board within the standard framing of the firm. Within it, we find that board composition is an important, but perhaps underappreciated, element of firm value.

The result is a natural arbitrage opportunity. If adding a lawyer-director increases firm value on average, then smart investors should buy call options on firms with no lawyer-directors. Doing so should be particularly valuable if the firms are in industries where lawyers are often on the board, INDUSTRY JD_{*i*,*i*}, or the firms' nonlawyer directors serve on boards that have a lawyer-director, JD NETWORK_{*i*,*i*}. Both are predictors of the presence of a lawyer-director and the benefits that can arise after a lawyer joins the board. Likewise, value-maximizing firms should encourage lawyers to join their boards. So why does this apparent arbitrage persist?

One possibility is that market participants are unaware of the value of a lawyer-director. They may understand the board to be dominated by the CEO—a

^{337.} See supra Table 2, Panel A, and accompanying text.

^{338.} See supra Table 5, Panel B, and accompanying text.

^{339.} See supra Table 6, Panel B, and accompanying text.

^{340.} Two of us, however, are lawyers, and would be excellent additions to any board.

view that is largely outdated³⁴¹—or they may understand the board's value to be limited to monitoring and agency cost reduction. A greater appreciation of the skills and experience that lawyer-directors bring to managing the corporation may quickly close the arbitrage opportunity.

A more likely possibility is that factors outside the corporation affect when a lawyer will join the board. Recall that a lawyer faces greater-than-average risks, compared to nonlawyers, when she becomes a director—as do the insurance companies who provide liability coverage to lawyer-directors and their firms.³⁴² Those insurers are likely to strongly discourage a lawyer from joining a board or increase the premiums they charge in light of the greater risks that may result. Individual costs, as a result, may outweigh the benefits, particularly if the lawyer is an independent director, in light of the regulatory and quasi-regulatory limits on the work she and her firm can do for the corporation.³⁴³ In other words, rather than just misdirection, today's focus on independence can lower a firm's ability to increase value by limiting the skills and experience available within the pool of prospective directors.

Going forward, a greater appreciation of the value of board composition and the directors' managing function will help balance the focus on independence. Clearly, there is a role for directors to continue their monitoring function. But the particular value of lawyer-directors is significant even after controlling for other, outside directors,³⁴⁴ and inside lawyer-directors provide still greater value.³⁴⁵ Consequently, beyond independence, a complete analysis of today's board must also take account of the incremental value that results from the particular skills and experience represented among the directors.

APPENDIX A—DEFINITIONS OF VARIABLES

Below we present brief definitions of the main variables that appear in this Article. For purposes of these definitions, i indexes = firms, j indexes = 2-digit SIC code industries, and t indexes = years in the panel.

KEY EXPLANATORY VARIABLES

 $JD_{i,t} = 1$ if a legally trained board member is present on the board, 0 otherwise.

Predicted JD_{*i*,*t*} = Predicted incidence of JD_{*i*,*t*} based on the Probit model estimated in Table 1, Column (1). In this model, we include two groups of independent variables. The first group includes those variables that are relevant determinants of JD_{*i*,*t*} and that are also used as control variables in the model regressions in Tables 2, 5, and 6. Those variables are GENERAL_LIT_{*i*,*t*-1},

^{341.} See supra note 63 and accompanying text.

^{342.} See supra note 100 and accompanying text.

^{343.} See supra notes 71-72 and accompanying text.

^{344.} See supra note 106 and accompanying text.

^{345.} See supra notes 317, 332, and Table 6, Panel A, and accompanying text.

SIZE_{*i*,*t*-1}, NYSE-Listed_{*i*,*t*-1}, COMPLEXITY_{*i*,*t*-1}, INSTITUTIONAL OWN_{*i*,*t*-1}, as well as year indicator variables and industry indicator variables. The second group includes JD NETWORK_{*i*,*t*-1}, SOX_{*t*}, and INDUSTRY JD_{*i*,*t*-1}. These three variables are exclusive determinants (or excluded instrumental variables) of the likelihood of having a lawyer-director.³⁴⁶ For this reason, they are never included as control variables in the model regressions in Tables 2, 5, and 6.

JD BOARD ROLES

 $JD_OUTSIDE_{i,t}$ = Indicator variable equal to 1 if all lawyer-directors are nonemployees, and 0 otherwise.

JD_CHAIRMAN_{*i*,*t*} = Indicator variable equal to 1 if one lawyer-director is board chairman, and 0 otherwise.

JD_CHAIR_COMPCOM_{*i*,t} = Indicator variable equal to 1 if one lawyerdirector is chairman of the board's compensation committee, and 0 otherwise.

JD_CHAIR_RISKCOM_{*i*,*t*} = Indicator variable equal to 1 if one lawyerdirector is chairman of the board's risk management committee, and 0 otherwise.

 $JD_COMPCOM_{i,t}$ = Indicator variable equal to 1 if at least one lawyerdirector is a member of the board's compensation committee, and 0 otherwise.

JD_RISKCOM_{*i*,*t*} = Indicator variable equal to 1 if at least one lawyerdirector is a member of the board's risk management committee, and 0 otherwise.

BOARD CHARACTERISTICS

OUTSIDE_DIRECTORS_{*i*,*t*} = Proportion of outside directors on the board, calculated as the ratio of outside directors on the board over the total number of directors on the board. The value of this variable is bound between 0 and 1.

 $BOARDSIZE_{i,t}$ = Number of board members.

CEOCHAIR_{*i*,*t*} = Indicator variable equal to 1 if the CEO is also board chairman, and 0 otherwise.

EINDEX_{*i*,*t*} = Entrenchment Index (E Index).³⁴⁷ Higher values of this index imply higher levels of managerial entrenchment.

STAGGERED_{*i*,*t*} = Indicator variable equal to 1 if the board is staggered, and 0 otherwise.

CEO COMPENSATION MEASURES

All variables below are Winsorized at one percent in each tail of the corresponding distribution.³⁴⁸

^{346.} See supra note 151.

^{347.} See supra note 210 and accompanying text.

^{348.} Winsorization is the process of transforming a variable's distribution by limiting extreme values in the statistical data in order to reduce the effect of possible outliers. This methodology was introduced in Cecil Hastings, Jr., Frederick Mosteller, John W. Tukey & Charles P. Winsor, *Low Moments for Small*

CEOSALARY_{*i*,*t*} = Log of CEO Salary as reported in Execucomp. The variable is further Winsorized at one percent in each tail of its distribution.

CEO-DELTA_{*i*,*t*} = Percent change in the value of the CEO option portfolio for a one percent increase in stock price.³⁴⁹ The variable is further Winsorized at one percent in each tail of its distribution.

CEO-VEGA_{*i*,*t*} = Percent change in the value of the CEO option portfolio for a one percent increase in the volatility of the returns on the underlying stock.³⁵⁰ The variable is further Winsorized at one percent in each tail of its distribution.

CEO-EXCESSCOMP_{*i*,*t*} = CEO Excess Compensation, defined as residual in the OLS regression: $log(Salary_{i,t} + Bonus_{i,t}) = b_1 log(Sales_{i,t}) + b_2(CEO$ $Stock_{i,t} + option ownership_{i,t} (\%)) + b_3 Age_{i,t} + b_4 Years as CEO_{i,t} + b_5 ROA_{i,t} + b_6 ROA_{i,t-1} + b_7(Excess Stock Return_{i,t}) + b_8(Excess Stock Return_{i,t-1}) + g * (Industry dummies) + h * (Year dummies).³⁵¹$

RISK MEASURES

All non-indicator variables below are Winsorized at one percent in each tail of the corresponding distribution.

 $ZSCORE_{i,t}$ = Defined as (3.3 * *EBIT/Assets* + 1 * *Revenue / Assets* + 1.4 * *Retained Earnings / Assets* + 1.2 * *NWC/Assets*).

IMPLVOL_{*i*,*t*} = The average annual implied volatility for standardized call options of ninety days maturity. The data is from the Option Metrics database. The variable is further Winsorized at one percent in each tail of its distribution.

TOBIN_{*i*,*t*} = Tobin's Q, defined as the ratio of the market value of assets to the book value of assets.³⁵²

OTHER VARIABLES DEFINITIONS

All non-indicator variables below are Winsorized at one percent in each tail of the corresponding distribution.

AVSALESGROWTH_{*i*,*t*} = Average sales growth over the preceding three fiscal years. The source of the data is the Compustat database.

 $CASH_{i,t}$ = Defined as the ratio of cash to total assets. The source of the data is the Compustat database.

Samples: A Comparative Study of Order Statistics, 18 ANNALS OF MATHEMATICAL STAT. 413, 413–14 (1947). The technique is implemented by setting all outliers to a pre-specified percentile of the data. For example, a 95 percent Winsorisation would imply setting all data below the 2.5th percentile to the 2.5th percentile and data above the 97.5th percentile to the 97.5th percentile.

^{349.} This measure is calculated using the same method as in Core & Guay, supra note 183.

^{350.} This measure is calculated using the same method as in Core & Guay, supra note 183.

^{351.} This measure is computed as excess compensation to a benchmark as in Philip G. Berger et al.,

Managerial Entrenchment and Capital Structure Decisions, 52 J. Fin. 1411, 1417 (1997).

^{352.} See supra note 118.

COMPLEXITY_{*i*,*t*} = Number of Operating Segments recorded in the Compustat Business Segment Historical File.

DIVIDENDS_{*i*,t} = Defined as the ratio of dividends to book equity. The source of the book equity data is the Compustat database.

INSTITUTIONAL OWN_{*i*,*t*} = Percentage of stock held by institutional investment managers. The source of the data is the Thomson Financial database of Form 13F filings with the SEC, which provides institutional stock holdings and transactions as reported on Form 13F.³⁵³

INTANGIBLE ASSETS_{*i*,*t*} = The lowest decile of the ratio of tangible assets to total assets, where tangible assets are defined as property, plant, and equipment. The source of the data is the Compustat database.

NYSE-Listed_{*i*,*t*} = Indicator equal to 1 if the firm is listed on the New York Stock Exchange and 0 otherwise. The source of the data is the Compustat database.

 $SIZE_{i,t}$ = Log of total assets (Compustat item AT) at the start of the year. The source of the data is the Compustat database.

LITIGATION RISK VARIABLES

GENERAL_LIT_{*i*,*t*} = Estimated probability of securities law and class action litigation (as recorded in Audit Analytics),³⁵⁴ calculated as $e_{SUE}/(1+e_{SUE})$, where

 $SUE_{t} = -7.883 + 0.566 \times FPS_{t} + 0.518 \times Assets_{t-1} + 0.982 \times Sales Growth_{t-1} + 0.379 \times Return_{t-1} - 0.108 \times Returnskewness_{t-1} + 25.635 \times Returnstdev_{t-1} + 0.00007 \times Turnover_{t-1}.$

<u>FPS</u> = 1 if the firm is in the biotech (SIC codes 2833-2836 and 8731-8734), computer (3570-3577 and 7370-7374), electronics (3600-3674), or retail (5200-5961) industries, and 0 otherwise;

 $\underline{\text{Assets}} = \text{Total assets};$

<u>Return</u> = Market-adjusted 12-month stock return;

<u>Returnskewness</u> = Skewness of the firm's 12-month return;

<u>Returnstddev</u> = Standard deviation of the firm's 12-month return;

<u>Sales Growth</u> = Current year sales less last year's sales, scaled by total assets at the beginning of the current year;

 $\underline{\text{Turnover}}$ = Daily trading volume accumulated over the fiscal year, scaled by the beginning of the year's shares outstanding (in thousands).

LITIGATION CATEGORIES

The source of data is the Audit Analytics (AA) Litigation files. Each category is defined as an indicator variable that includes the actual litigation categories (as presented in the AA Litigation files) noted in the description section. We note in parentheses the relevant AA Litigation category code.

^{353.} See supra note 119.

^{354.} Based on Model (3) in Irene Kim & Douglas J. Skinner, *Measuring Securities Litigation Risk*, 53 J. ACCT. & ECON. 290, 302 (2012).

Litigation Category	Description (as presented in AA Litigation files)
SECURITIES_LIT _{i,t}	= Securities Laws (41)
CLASSACTION_LIT _i ,	t = Class Action (1)
PATENT_LIT _{i,t}	= Patent Law (35), Trademark Law (44), Copyright Law (12)
ACCOUNTING_LIT _{i,t}	= Accounting Malpractice (2)
OPTION_BACK-	
DATING_LIT _{<i>i</i>,<i>t</i>}	= Stock Options Backdating (55)

EXCLUDED INSTRUMENTS

INDUSTRY JD_{*i*,*t*} = Industry (2-digit SIC code) cumulative density function of the likelihood of having lawyer-director(s) for any given year *t* and industry *j*. We use this variable for each observation (for each corporation *i* in year *t*, where corporation *i* is a member of industry *j* in year *t*).

JD NETWORK_{*i*,*t*} = An indicator variable equal to 1 if at least one board member in any given year was also on another board in the prior year that included a lawyer-director, and 0 otherwise.

 SOX_t = An indicator variable equal to 1 after adoption of the Sarbanes-Oxley Act of 2002, and 0 otherwise.

APPENDIX B-SELECTED SUMMARY DATA

APPENDIX B—PANEL A

Below we report selected summary statistics related to our analyses. These data are based on the Fama-French 49 industry portfolios, excluding financial firms.

Variables	Average	Median	St. Dev.	10th Percentile	90th Percentile
Lawyer-Director Variables					
$JD_{i,t}$	0.41	0	0.49	0	1
Predicted JD _{<i>i</i>,<i>t</i>}	0.44	0.438	0.179	0.22	0.68
Key Dependent Variables					
CEO VEGA _{i,t}	69	22.95	123.10	0.0	189.5
CEO DELTA _{i,t}	497	145.2	1,226.6	14.9	1,080.6
ZSCORE _{i,t}	1.659	1.803	1.843	0.288	3.400
IMPLVOL _{i,t}	0.401	0.402	0.186	0.235	0.688
TOBIN _{i,t}	2.86	2.14	2.60	0.83	5.69
BOARDSIZE _{i,t}	9.06	9	2.3	6	12
CEOCHAIR _{i,t}	0.60	1	0.49	0	1
EINDEX _{i,t}	2.79	3	1.35	1	5
STAGGERED _{i,t}	0.60	1	0.12	0	1
LEVERAGE _{<i>i</i>,<i>t</i>}	0.20	0.17	0.19	0	0.41

Variables	Average	Median	St. Dev.	10th Percentile	90th Percentile
Litigation Categories					
GENERAL_LIT _{i,t}	0.37	0.27	0.29	0.07	0.86
PATENT_LIT _{i,t}	0.204	0	0.28	0	0.65
SECURITIES_LIT _{i,t}	0.142	0.017	0.219	0	0.45
CLASSACTION_LIT _{i,t}	0.176	0.08	0.244	0	0.50
ACCOUNTING_LIT _{i,t}	0.047	0	0.125	0	0.15
OPTION_BACKDATING_LIT _{i,t}	0.0032	0	0.056	0	0
Key Variables Predicting JD _{i,t}					
SIZE _{i,t}	7.35	7.2	1.603	5.4	9.6
COMPLEXITY _{i,t}	1.47	1	1.23	1	3
INDUSTRY JD _{i,t}	0.41	0.39	0.138	0.22	0.62
JD NETWORK _{i,t}	0.43	0	0.26	0	1
NYSE _{i,t}	0.58	1	0.49	0	1
First-difference Variables					
$\Delta JD_{i,t}$	0.015	0	0.263	0	0.03
$\Delta ZSCORE_{i,t}$	-0.06	0.004	0.8196	-0.68	0.46
Δ IMPLVOL _{<i>i</i>,<i>t</i>}	0.099	-0.01	1.949	-0.12	0.18
$\Delta \text{TOBIN}_{i,t}$	-0.15	-0.03	2.0006	-1.55	1.04

APPENDIX B—PANEL B

This panel shows personal characteristics, committee assignments, leadership roles, and compensation of lawyer-directors.

Variables	Average	Std. Dev.
Personal Characteristics		
Age	62.8	8.1
Gender (Percent male)	0.88	0.33
Number of Board Memberships	1.96	1.31
Committee Assignments		
Number of Committees Assigned	3.44	3.02
Audit Comm. Member	0.22	0.42
Nominating/Governance Comm. Member	0.27	0.44
Compensation Comm. Member	0.33	0.47
Risk Comm. Member	0.33	0.46
Leadership Roles		
Chairman of the Board	0.07	0.25
Audit Comm. Chair	0.09	0.28
Nominating/Governance Comm. Chair	0.27	0.44

Variables	Average	Std. Dev.
Compensation Comm. Chair	0.14	0.34
Risk Comm. Chair	0.14	0.35
Compensation (in US\$ thousands)		
Cash (Salary)	53.596	47.68
Equity (Stock & Options)	123.044	165.33
Total Annual Compensation	176.64	256.12

APPENDIX C-ROBUSTNESS ANALYSIS

In this Appendix, we perform a first-difference regression to verify the robustness of our results regarding the impact of $JD_{i,t-1}$ on each of the following variables: $ZSCORE_{i,t}$, $IMPLVOL_{i,t}$, and Tobin's Q.

Dependent Variables:	Δ Z-SCORE _{<i>i</i>,<i>t</i>}	$\frac{\Delta}{\text{IMPL-VOL}_{i,t}}$
Variable:	(1)	(2)
$\Delta \; \mathrm{JD}_{i,t-1}$	0.007** (2.18)	-0.027*** (3.21)
Δ CEO DELTA _{<i>i</i>,<i>t</i>-1}	0.033 (1.53)	-0.022*(1.74)
Δ CEO VEGA _{<i>i</i>,<i>t</i>-1}	0.323*** (2.98)	0.029 (0.49)
Δ SIZE _{<i>i</i>,<i>t</i>-1}	-0.306*** (4.51)	-0.49^{***} (3.26)
Δ AVSALESGROWTH _{<i>i</i>,<i>t</i>-1}	1.646*** (11.41)	-0.487 (1.32)
Δ DIVIDENDS _{<i>i</i>,<i>t</i>-1}	0.031*** (3.13)	-0.001 (0.1)
$\Delta \operatorname{CASH}_{i,t-1}$	1.013*** (5.81)	-0.138 (0.50)
Observations	8,258	8,258
Adj. R-squared	11.7%	11.7%

Appendix C—Panel A. Lawyer-Directors and Risk-Taking.³⁵⁵

First-difference regressions of dependent variables $\Delta ZSCORE_{i,t}$ and $\Delta IMPLVOL_{i,t}$ on independent variable $\Delta JD_{i,t-1}$. We control for ΔCEO DELTA_{i,t-1}, ΔCEO VEGA_{i,t-1}, $\Delta SIZE_{i,t-1}$, $\Delta AVSALESGROWTH_{i,t-1}$, $\Delta DIVIDENDS_{i,t-1}$, and $\Delta CASH_{i,t-1}$. Observation count and a measure of goodness of fit (adjusted R-squared) are shown. The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

We find that the coefficient $\Delta JD_{i,t-1}$ is always positive and statistically significant. Concerning its economic significance, we report that a one stan-

^{355.} The analytical description of the regression models underlying this table and the other tables in this Article are online at http://georgetownlawjournal.org/articles/lawyers-and-fools/.

dard deviation increase in $\Delta JD_{i,t-1}$ (0.263) is associated with a standard deviation increase of 22 basis points in $\Delta ZSCORE_{i,t}$ (calculated as 0.263, multiplied by the coefficient estimate of 0.007, divided by the standard deviation of $\Delta ZSCORE_{i,t}$, i.e., 0.8196) and a standard deviation decrease of 37 basis points in $\Delta IMPLVOL_{i,t}$ (calculated as 0.263, multiplied by the coefficient estimate of -0.027, divided by the standard deviation of $\Delta IMPLVOL_{i,t}$, i.e., 1.949).

Dependent Variable:	$\Delta \operatorname{TOBIN}_{i,t}$
Variable:	(1)
$\Delta ext{ JD}_{i,t-1}$	0.241*** (3.34)
Δ SIZE _{<i>i</i>,<i>t</i>-1}	-0.5557*** (4.59)
Δ AVSALESGROWTH _{<i>i</i>,<i>t</i>-1}	0.140 (0.73)
Δ DIVIDENDS _{<i>i</i>,<i>i</i>-1}	0.040 (1.18)
$\Delta \operatorname{CASH}_{i,t-1}$	1.2565*** (4.95)
Observations	8,858
Adj. R-squared	10.7%

Appendix C—Panel B. Lawyer-Directors and Risk-Taking³⁵⁶

First-difference regressions of dependent variable $\Delta TOBIN_{i,t}$ on independent variable $\Delta JD_{i,t-1}$. We control for $\Delta SIZE_{i,t-1}$, $\Delta AVSALESGROWTH_{i,t-1}$, $\Delta DIVIDENDS_{i,t-1}$, and $\Delta CASH_{i,t-1}$. Observation count and a measure of goodness of fit (adjusted R-squared) are shown. The ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

We find that the coefficient $\Delta JD_{i,t-1}$ is always positive and statistically significant. Concerning its economic significance, we report that a one standard deviation increase in $\Delta JD_{i,t-1}$ is associated with a nearly 3.2% of standard deviation increase in Tobin's Q (calculated as 0.263, multiplied by the coefficient estimate of 0.241, divided by the standard deviation of $\Delta TOBIN_{i,t}$, i.e., 2.0006).

^{356.} The analytical description of the regression models underlying this table and the other tables in this Article are online at http://georgetownlawjournal.org/articles/lawyers-and-fools/.