

# Articles

## COMMITMENT AND ENTRENCHMENT IN CORPORATE GOVERNANCE

*K.J. Martijn Cremers, Saura Masconale & Simone M. Sepe*

**ABSTRACT**—Over the past twenty years, a growing number of empirical studies have provided evidence that governance arrangements protecting incumbents from removal promote managerial entrenchment, reducing firm value. As a result of these studies, “good” corporate governance is widely understood today as being about stronger shareholder rights.

This Article rebuts this view, presenting new empirical evidence that challenges the results of prior studies and developing a novel theoretical account of what really matters in corporate governance. Employing a unique dataset that spans from 1978 to 2008, we document that protective arrangements that require shareholder approval—such as staggered boards and supermajority requirements to modify the charter—are associated with increased firm value. Conversely, protective arrangements that do not require shareholder approval—such as poison pills and golden parachutes—are associated with decreased firm value. This evidence suggests that limiting shareholder rights serves a constructive governance function as long as the limits are the result of mutual agreement between the board and shareholders. This function commits shareholders to preserve a board’s authority to exploit competitive private information and pursue long-term wealth maximization strategies.

By documenting that committing shareholders to the longer term matters as much as, if not more than, reducing entrenchment for good corporate governance, our analysis sheds much needed light on the allocation of power between boards and shareholders, managerial accountability, and stakeholder interests. We conclude by outlining the implications of our analysis concerning the direction corporate governance policies ought to take.

**AUTHORS**—K.J. Martijn Cremers, Professor of Finance and Law, Mendoza College of Business, University of Notre Dame. Saura Masconale, Assistant Professor, The University of Arizona School of Government and Public Policy. Simone M. Sepe, Professor of Law and Finance, James E. Rogers College of Law, University of Arizona; and

Institute for Advanced Study in Toulouse–Fondation Jean-Jacques Laffont–Toulouse School of Economics. Corresponding author. Email address: [simone.sepe@law.arizona.edu](mailto:simone.sepe@law.arizona.edu). Mary Adkins, Andrea Attar, Stephan Bechtold, Jacques Crémer, Luca Enriques, Ron Gilson, Henry Hansmann, Gerard Hertig, Robert Jackson, Augustine Landier, Robert Merges, Geoffrey Miller, Bob Mundheim, Sébastien Pouget, Alan Schwartz, Paul Seabright, Jean Tirole, and seminar participants at the ETH-Zurich Series in Law and Economics, the Institute for Advanced Study in Toulouse, and the Toulouse School of Economics provided helpful comments.

INTRODUCTION .....	729
I. CORPORATE GOVERNANCE: WHERE DO WE STAND? .....	736
A. <i>Organizations, Markets, and American Corporate Law</i> .....	736
B. <i>The Rise of Governance Indices</i> .....	741
C. <i>The End of History for Corporate Governance</i> .....	744
D. <i>The End of “The End of History”?</i> .....	747
II. CORPORATE GOVERNANCE REVISITED.....	751
A. <i>Research Objectives and Empirical Methodology</i> .....	751
B. <i>E-Index Provisions and Data Description</i> .....	755
C. <i>Incidence of the E-Index Provisions</i> .....	758
D. <i>Corporate Governance and Firm Value</i> .....	761
III. THE VALUE OF COMMITMENT.....	771
A. <i>The Commitment Index and the Incumbent Index</i> .....	772
B. <i>The Dynamics of Incumbent Protection</i> .....	774
C. <i>Managerial and Stakeholder Engagement</i> .....	777
IV. BOARD AUTHORITY, MANAGERIAL ACCOUNTABILITY, AND STAKEHOLDER INTERESTS .....	788
A. <i>Soft and Hard Budget Constraints</i> .....	789
B. <i>Demystifying the Stakeholder Interests Problem</i> .....	792
V. POLICY CONSIDERATIONS .....	795
A. <i>Are Commercial Indices Reliable?</i> .....	796
B. <i>The Shareholder Direction of Federal Regulation</i> .....	799
CONCLUSION .....	803
APPENDIX.....	805

## INTRODUCTION

Corporate governance matters. The complex framework of institutions and processes by which corporations are organized and managed<sup>1</sup> affects

---

<sup>1</sup> Corporate governance comprises both external and internal mechanisms. The board of directors, shareholder rights, and compensation schemes are often described as primary examples of internal governance mechanisms. External governance, instead, refers to the role of market forces in constraining corporate behavior, including the capital, labor, and product markets. Existing studies, however, have largely focused on internal governance. *See, e.g.,* JONATHAN R. MACEY, CORPORATE GOVERNANCE 10 (2008). Although two of us have explained elsewhere why a thorough approach to corporate governance should not leave aside the interactions between internal and external mechanisms, *see* K.J. Martijn Cremers & Vinay B. Nair, *Governance Mechanisms and Equity Prices*, 60 J. FIN. 2859 (2005) (investigating the value impact of the interactions between external and internal governance);

corporate performance and thus the aggregate welfare of society. This explains why the question of what draws the line between “good” (i.e., value-increasing) and “bad” (i.e., value-decreasing) corporate governance has long been central to corporate legal theory.<sup>2</sup> Attempts to answer that question took a step forward in the 1980s, when empirical analysis to investigate governance models first became available.<sup>3</sup> Discussions over the merits of such models no longer relied on theory only. Rather, empirical predictions about desirable governance arrangements could be tested against the actual data, through statistical analysis. Studies employing corporate governance indices, which first made their appearance in the late 1990s,<sup>4</sup> proved especially useful. By benchmarking a firm’s governance quality against several governance provisions, governance indices provided a research design well suited to evaluate the various dimensions of a governance model.<sup>5</sup>

The rise of corporate governance indices has made winners and losers in the corporate governance debate. Providing empirical evidence that incumbent protection from removal by shareholders—“entrenchment”—is detrimental to firm value, governance indices have offered strong support for a shareholder-centric governance model.<sup>6</sup> Economically, the case for this model rests on the proposition that shareholders, as the corporation’s residual claimants, have the greatest incentives to provide value-enhancing governance inputs.<sup>7</sup> As a corollary, so-called shareholder advocates view any restrictions on shareholder power as inefficiently insulating managers from shareholder discipline.<sup>8</sup> Conversely, since the emergence of governance indices, advocates of the traditional board-centric model of the

---

Simone M. Sepe, *Regulating Risk and Governance in Banks: A Contractarian Perspective*, 62 EMORY L.J. 327 (2012) (examining the implications of the causal relationship between external and internal governance mechanisms in the banking sector), in this Article we primarily focus on internal governance in order to facilitate comparative assessments with prior studies.

<sup>2</sup> See *infra* note 26.

<sup>3</sup> See *infra* text accompanying notes 63–64.

<sup>4</sup> See *infra* Section I.B.

<sup>5</sup> See *infra* Section I.B.

<sup>6</sup> See *infra* text accompanying notes 54–59.

<sup>7</sup> The standard economic reference for the basic assumptions underpinning the shareholder empowerment case is Michael Jensen and William Meckling’s agency theory of the corporation. See Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976).

<sup>8</sup> See Rafael La Porta et al., *The Economic Consequences of Legal Origins*, 46 J. ECON. LITERATURE 285, 285 (2008) (describing the proposition that protection of outside investors limits the extent of their expropriation by insiders as “standard in corporate law”).

corporation—under which boards were protected from shareholder interference—have largely stood in the minority.<sup>9</sup>

Further evidence of the influence of governance indices has been the rise and popularity of commercial governance indices, which are widely used by proxy advisory firms to provide voting recommendations to investors.<sup>10</sup> Indeed, commercial indices not only share the same approach of academic indices,<sup>11</sup> but also their unequivocal support for enhanced shareholder rights.

This Article rebuts, empirically and theoretically, the currently dominant view that stronger shareholder rights are an all-purpose remedy in corporate governance. It does so by revisiting the evidence obtained in the empirical literature on governance indices—employing what is, to the best of our knowledge, the largest available dataset on corporate governance arrangements, covering thirty years of governance choices from 1978 to 2008—and developing a novel theoretical account of what *really* matters for firm value.

In revisiting the existing empirical evidence, we focus on the entrenchment index or “E-Index.” Introduced in 2009 by a team of legal and financial experts,<sup>12</sup> the E-Index provides evidence that six entrenchment provisions matter the most for firm value: staggered boards, poison pills, golden parachutes, supermajority requirements for charter amendments, supermajority requirements for bylaws amendments, and supermajority requirements for mergers.<sup>13</sup> As of June 2016, over three hundred empirical studies have used the E-Index as a measure of governance quality,<sup>14</sup> indicating that, as a matter of fact, the E-Index has become the standard reference to define entrenchment and, hence, “bad” governance. Yet, in estimating the association between the E-Index (and

---

<sup>9</sup> See William W. Bratton & Michael L. Wachter, *Shareholder Primacy's Corporatist Origins: Adolf Berle and The Modern Corporation*, 34 J. CORP. L. 99, 100, 145–46 (2008).

<sup>10</sup> See *infra* notes 92–95 and accompanying text.

<sup>11</sup> See *infra* note 92.

<sup>12</sup> See Lucian Bebchuk et al., *What Matters in Corporate Governance?*, 22 REV. FIN. STUD. 783, 784–85 (2009).

<sup>13</sup> *Id.*; see also *infra* Section II.B.1 (discussing each of these governance arrangements in detail).

<sup>14</sup> Professor Bebchuk reports on his website that as of June 2016, at least 307 studies have used the E-Index that he and his coauthors developed. See *Links to 307 Studies that Use the Entrenchment Index*, HARV. L. SCH., <http://www.law.harvard.edu/faculty/bebchuk/studies.shtml> [https://perma.cc/87FM-4LND]. Discussions of the E-Index have also frequently appeared in law reviews. See, e.g., Lucian A. Bebchuk, Essay, *The Myth that Insulating Boards Serves Long-Term Value*, 113 COLUM. L. REV. 1637, 1685–86 (2013); Sanjai Bhagat et al., *The Promise and Peril of Corporate Governance Indices*, 108 COLUM. L. REV. 1803, 1821–23 (2008); Michael Klausner, *Fact and Fiction in Corporate Law and Governance*, 65 STAN. L. REV. 1325, 1363 n.155 (2013).

each of its six constituent components) and firm value, the creators of the E-Index only relied on a twelve-year period (1990–2002).<sup>15</sup> Conversely, we rely on a much more comprehensive dataset over a much longer period, allowing for a more robust statistical analysis of the time-series association between corporate governance and firm value.<sup>16</sup>

Our empirical findings call into question the indiscriminate approach to incumbent protection from removal as adopted by the E-Index and other academic and commercial governance indices. In contrast to that approach's assumption that *any* form of incumbent protection is detrimental to shareholders,<sup>17</sup> we show that only protective arrangements that can be unilaterally adopted by directors (unilateral protection arrangements)—poison pills, golden parachutes, and supermajority requirements to amend the bylaws—are associated with decreased firm value and hence fit the entrenchment theory of incumbent protection. Conversely, protective arrangements that require shareholder approval (bilateral protection arrangements)—staggered boards, supermajority requirements to amend the charter and to approve mergers—are associated with increased firm value. This finding suggests that these arrangements serve a constructive, rather than detrimental governance function.

That function, we argue, is mitigating what we refer to as the shareholders' limited commitment problem,<sup>18</sup> which arises out of market imperfections—in the first instance, the possibility that market prices may fail to fully capture the implications of directorial decisions in the short-term.<sup>19</sup> Faced with this informational inefficiency and vested with strong exit rights, shareholders—all public shareholders, as a matter of course—are unable to credibly commit to long-term value creation. That is, they have no basis on which to decide *not* to seek board removal or dump their shares upon a disappointing short-term outcome. This is because shareholders are unable to distinguish whether such an outcome is due to mismanagement or to the pursuit of a project whose value will not be realized until later. In response to this problem, to protect themselves, directors and managers rationally develop incentives to privilege short-term

---

<sup>15</sup> See Bebchuk et al., *supra* note 12, at 796.

<sup>16</sup> See *infra* text accompanying notes 129–30 (discussing the implications of using a time-series analysis in empirical research).

<sup>17</sup> See Bebchuk et al., *supra* note 12, at 788.

<sup>18</sup> See K.J. Martijn Cremers & Simone M. Sepe, *The Shareholder Value of Empowered Boards*, 68 STAN. L. REV. 67, 73, 114–15 (2016).

<sup>19</sup> After the 2008 financial crisis, asset-pricing models that allow for the possibility of mispricing have been the subject of a large literature. See, e.g., Darrell Duffie, Presidential Address, *Asset Price Dynamics with Slow-Moving Capital*, 65 J. FIN. 1237 (2010) (providing a summary of these studies).

stock price gains over long-term cash flows. Similarly, shareholders' inability to commit to the long term may distort the incentives of other firm stakeholders, including employees, customers, suppliers, and creditors. Indeed, these stakeholders may be induced to make suboptimal investments in a firm if the specificity of their investments make them vulnerable to short-term changes in investment policy. In either case, the result is reduced firm value in the long run.

We find that bilateral protection arrangements help mitigate the above distortions by committing shareholders *ex ante* not to interfere with board decisionmaking in the near term, increasing longer-term shareholder *and* firm value. The adoption of a staggered board commits shareholders to longer directorial terms, making it more difficult for shareholders to renege on prior engagements *vis-à-vis* managers and stakeholders. Similarly, supermajority requirements to amend the charter and approve mergers add to a firm's long-term commitment by introducing a bias in favor of institutional stability, making it more difficult to alter basic organizational rules unless both the board and a large majority of shareholders agree to the changes.

This novel theoretical account suggests that promoting a firm's commitment to the long term matters as much as—and potentially more than—reducing entrenchment in corporate governance. In order to empirically corroborate this conclusion, we divide the E-Index into two separate sub-indices: a “commitment index” (or, more briefly, “C-Index”), only including the E-Index's three bilateral provisions, and an “incumbent index” (or, more briefly, “I-Index”), only including the E-Index's three unilateral provisions. Consistent with our account of corporate governance, we document that increased scores on the C-Index (i.e., more commitment) are associated with increases in firm value. Conversely, increased scores on the I-Index (i.e., more entrenchment) are associated with decreases in firm value. As a further empirical test, we examine whether the use of bilateral protection arrangements is more valuable to firms where the shareholders' limited commitment problem appears to be more severe, as predicted by our theory. To this end, we focus on three categories of firms: (1) firms with more long-term innovation; (2) firms for which stronger firm-specific investments by nonfinancial stakeholders, such as employees and customers, are likely to be more important; and (3) firms with more potential for excessive future risk taking to the detriment of financial

stakeholders such as creditors.<sup>20</sup> In all three cases, we find empirical results that strongly support our commitment theory of bilateral protection arrangements.

This Article's analysis bears major implications for the debate on both the means and ends of corporate governance. Shareholder advocates have been very successful in portraying a shareholder-centric model as an efficient form of direct corporate democracy.<sup>21</sup> They have been equally successful in representing the board-centric model as an inefficient form of corporate dictatorship, where incumbents can unilaterally and opportunistically protect themselves from removal at the expense of shareholders.<sup>22</sup> This account of corporate governance, however, indiscriminately throws everything into one pot, failing to recognize the importance of the shareholders' limited commitment problem. It also omits consideration that some protective arrangements are bilateral, i.e., premised on prior shareholder consent, which is consistent with the basic organizational principles of a republic rather than a dictatorship.

Our analysis redresses both mistakes. First, we show that the goal of firm value maximization requires enhanced board protection in the short term without eliminating exposure to shareholder discipline in the longer term, shedding much needed light on the intertemporal dynamics of that goal. Increased protection from removal is necessary at the beginning of a director's tenure, when directors are more likely to have competitive private information that the market lacks on the actions that contribute to longer-term value. That protection efficiently enables directors to take actions that "tolerate," rather than "punish," what may mistakenly appear to the market as "early failure" (e.g., low short-term earnings). Conversely, over time, as a director's tenure matures and market prices are more likely to catch up with the director's informational advantage, shareholders become better positioned to discipline directorial and managerial actions.

Second, we show that the "republican board-centric model"—which empowers boards to resist short-term market pressure with the prior agreement of shareholders—better approximates the above organizational structure. Such a model adds value that direct shareholder democracy cannot provide by ensuring that shareholder discipline operates in the long term, rather than in the short term. Contrary to what shareholder advocates

---

<sup>20</sup> See *infra* text accompanying notes 227–31, 241–42 (discussing the proxies that we use to identify these specific features of corporate production).

<sup>21</sup> See *infra* text accompanying note 77.

<sup>22</sup> See *infra* text accompanying note 76.



frequently argue,<sup>23</sup> a staggered board does not remove directors from the judgment of the market. Rather, it provides a time frame for directorial evaluation by the shareholders that is less likely to be biased by informational inefficiencies. Similarly, supermajority requirements to amend the charter and to approve mergers do not reduce long-term directorial accountability, but constructively strengthen board authority in the short term.

Our analysis also bears noteworthy policy implications. For one thing, it suggests that the emphasis placed by providers of commercial governance indices on stronger shareholder rights may be pushing governance practices at many U.S. corporations in counterproductive directions. This is especially troubling if one considers that supporting stronger shareholder rights (and fewer incumbent protections) promotes increased shareholder activism, which, in turn, leads to more voting advisory activity and increased revenues for proxy advisors.<sup>24</sup> In response, action by the Securities and Exchange Commission (SEC)—requiring, as a first step, disclosure of the proprietary algorithms used in the construction of commercial indices—would be desirable to allow more transparency and discussion about the governance recommendations provided by proxy advisors. This, in turn, would help answer the question of whose interests those recommendations really serve. Similarly, the evidence produced in this Article challenges reform interventions that have increasingly sustained shareholder empowerment in the past two decades. Going forward, policymakers would do well to reconsider the case for limiting shareholder power in the short term and the direction governance policies ought to take to support long-term value creation.<sup>25</sup>

The remainder of this Article proceeds as follows. Part I provides background on the history of the corporate governance debate, the rise of governance indices, and the present state of corporate governance research. Part II revisits the evidence for the association between the E-Index (and each of the six provisions it includes) and firm value, and, based on that evidence, develops a novel theoretical account of what really matters in corporate governance. Part III puts that account to further empirical testing, finding strong support for our claim that promoting shareholder commitment to the long term matters as much as, if not more than, reducing entrenchment for good corporate governance. Part IV discusses

---

<sup>23</sup> See, e.g., Bebchuk, *supra* note 14, at 1681 (“[H]aving a staggered board considerably enhances the extent to which directors are insulated from shareholder pressure . . .”).

<sup>24</sup> See *infra* Section V.A.

<sup>25</sup> See *infra* Section V.B.

the implications that our analysis bears for the optimal allocation of power between boards and shareholders, managerial accountability, and stakeholder interests. Part V outlines desirable policy changes.

### I. CORPORATE GOVERNANCE: WHERE DO WE STAND?

The optimal allocation of power between boards and shareholders, the resolution of conflicts of interests among corporate constituencies, and the structuring of managerial incentives are widely recognized as essential corporate governance objectives.<sup>26</sup> However, the principles that should guide corporate actors and lawmakers in structuring governance arrangements that efficiently pursue these objectives continue to be the subject of an intense debate. In this Part, we provide the background for understanding the importance and context of this debate, beginning with an overview of the main concepts that have historically informed corporate governance discussions. After that, we continue to trace the trajectory of those discussions by focusing on the rise of governance indices and their increasing influence over time in defining “good” corporate governance. We conclude this Part with an assessment of the present state of the corporate governance debate.

#### A. *Organizations, Markets, and American Corporate Law*

Although corporate governance theories tend to defy easy classification, a recurring distinction is between the corporation as a social organization—largely based on notions of entity, centralization, and authority—and the corporation as a creature of the market—largely based on notions of individualism, decentralization, and contract.<sup>27</sup>

Until about the end of the nineteenth century, the corporate legal discourse took for granted that corporations owed their existence to a public concession by the state that chartered them.<sup>28</sup> Emphasizing the state’s constitutive role, this view conceived of the corporation as an entity

---

<sup>26</sup> Scholarly contributions on these issues are too voluminous to be cited in full. For a nonexhaustive review of these and other prominent governance issues, see, for example, Lucian A. Bebchuk & Michael S. Weisbach, *The State of Corporate Governance Research*, 23 REV. FIN. STUD. 939 (2010).

<sup>27</sup> For a seminal attempt at capturing the different ideals that have historically characterized the corporate governance debate, see Roberta Romano, *Metapolitics and Corporate Law Reform*, 36 STAN. L. REV. 923 (1984).

<sup>28</sup> See EDWIN MERRICK DODD, AMERICAN BUSINESS CORPORATIONS UNTIL 1860 WITH SPECIAL REFERENCE TO MASSACHUSETTS 14–15 (1954); William W. Bratton, Jr., *The New Economic Theory of the Firm: Critical Perspectives from History*, 41 STAN. L. REV. 1471, 1484 (1989) (discussing the historical roots of the “special charter” phase of corporations).

transcending its individual participants and charged with the pursuit of public, rather than private, interests.<sup>29</sup> The regulatory notion of early American corporate law was accordingly justified as a means to preserve the public purpose utility of the corporate form.<sup>30</sup>

Things began to change at the turn of the century. With the rise of the large corporation characterized by the separation of ownership from control,<sup>31</sup> and the ascent of individualism and economic laissez-faire attitude,<sup>32</sup> corporations increasingly came to be seen as pursuing primarily private rather than public interests.<sup>33</sup> As illustrated by the classic debate between Adolph Berle and Merrick Dodd in the 1930s,<sup>34</sup> the shift to a private law approach to corporate relationships raised novel questions about the direction that developing corporate law rules ought to take. By analyzing the corporation through the lens of shareholders' property rights, Berle naturally insisted on maximizing shareholder wealth as the appropriate corporate end and, in turn, on curbing managerial discretion as the means to reach that end.<sup>35</sup> On the polar opposite side, Dodd remained true to the view of the corporation as a social organization, advocating a corporate model that granted directors and managers broad discretion in the pursuit of corporate interests<sup>36</sup>—including the interests of other stakeholders.<sup>37</sup>

Although the corporate paradigm defended by Berle (both in his writings alone and with Gardiner Means) has exerted enduring influence on

<sup>29</sup> See Romano, *supra* note 27, at 931. The earliest corporations were generally chartered to undertake activities advancing the commonwealth—such as public utilities, transportation, banking, insurance, and water works—rather than corporate profitability. JAMES WILLARD HURST, *THE LEGITIMACY OF THE BUSINESS CORPORATION IN THE LAW OF THE UNITED STATES 1780–1970*, at 17–18 (1970).

<sup>30</sup> See David Millon, *Theories of the Corporation*, 1990 DUKE L.J. 201, 207–13 (discussing the extensive body of statutory and common law rules which early corporations were subject to).

<sup>31</sup> The classic reference is to the work of Adolf Berle and Gardiner Means, who first exposed the separation of ownership from control as the distinctive trait of the public modern corporation. ADOLF A. BERLE, JR. & GARDINER C. MEANS, *THE MODERN CORPORATION AND PRIVATE PROPERTY* (1932).

<sup>32</sup> See David Ciepley, *Beyond Public and Private: Toward a Political Theory of the Corporation*, 107 AM. POL. SCI. REV. 139, 139–40 (2013).

<sup>33</sup> See *id.*; Millon, *supra* note 30, at 213.

<sup>34</sup> See Bratton & Wachter, *supra* note 9, at 122–35 (offering an exhaustive discussion of the Berle–Dodd debate throughout its evolution over the years).

<sup>35</sup> See, e.g., BERLE & MEANS, *supra* note 31, at 84–89; ADOLF A. BERLE, JR., *STUDIES IN THE LAW OF CORPORATE FINANCE* (1928); A.A. Berle, Jr., *Corporate Powers as Powers in Trust*, 44 HARV. L. REV. 1049 (1931); A.A. Berle, Jr., *For Whom Corporate Managers Are Trustees: A Note*, 45 HARV. L. REV. 1365 (1932).

<sup>36</sup> See E. Merrick Dodd, Jr., *For Whom Are Corporate Managers Trustees?*, 45 HARV. L. REV. 1145, 1147–48 (1932).

<sup>37</sup> See *id.* at 1154.

the modern corporate governance discourse, it is Dodd's account that more closely captures the business model that long prevailed in corporate America.<sup>38</sup> At the center of that business model was the "management corporation,"<sup>39</sup> revolving around directors and executives who did not see themselves as shareholders' trustees. Rather, they saw themselves as retaining virtually exclusive authority over the corporation, including authority to consider nonshareholder interests.<sup>40</sup>

After a brief encounter with corporatism during the New Deal<sup>41</sup>—in which the idea of a public role of the corporation resurfaced under the form of a call for the social responsibility of managers<sup>42</sup>—the management corporation thrived on a unique corporate capitalism system. This system abandoned any element of economic progressivism,<sup>43</sup> but continued to privilege a centralized decisionmaking paradigm: a governance model centered on "empowered boards," largely protected from shareholder interference.<sup>44</sup> Undergirding that model was a tacit social consensus that corporate growth took priority over corporate profits, as long as managers could compensate shareholders with stable dividends.<sup>45</sup> In the prevailing

---

<sup>38</sup> Berle himself later came to concede that his debate with Dodd "ha[d] been settled (at least for the time being) squarely in favor of Professor Dodd's contention." ADOLF A. BERLE, JR., *THE 20TH CENTURY CAPITALIST REVOLUTION* 169 (1954). Even before this concession to Dodd, Berle had adjusted his positions as events unfolded in his own time, embracing a view of corporate law that was closer to organicist ideals. See Bratton & Wachter, *supra* note 9, at 120–21; Romano, *supra* note 27, at 936.

<sup>39</sup> See Bratton, *supra* note 28, at 1473, 1482–94 (describing "the appearance, success, and endurance of the management corporation").

<sup>40</sup> Lynn A. Stout, *The Corporation as a Time Machine: Intergenerational Equity, Intergenerational Efficiency, and the Corporate Form*, 38 SEATTLE U. L. REV. 685, 711 (2015). For an exhaustive review of the political, sociological, and economic dimensions of managerialism, see WILLARD F. ENTEMAN, *MANAGERIALISM: THE EMERGENCE OF A NEW IDEOLOGY* 152–93 (1993).

<sup>41</sup> Corporatism emphasizes groups over individuals and cooperation over competition. A classic reference is Leo Panitch, *The Development of Corporatism in Liberal Democracies*, 10 COMP. POL. STUD. 61 (1977) (describing corporatism as an ideology that developed in the nineteenth century against the individualism and competition of the emerging capitalistic mode of production and which emphasized class harmony, organic unity, and mutual rights and obligations). For an exhaustive discussion of the influence played by corporatist ideals on the early phases of the New Deal, see DAVID CIEPLEY, *LIBERALISM IN THE SHADOW OF TOTALITARIANISM* 98–128 (2006).

<sup>42</sup> The idea was originally presented in a speech, *New Individualism*, delivered by President Roosevelt in 1932, but prepared by Berle and his wife, Beatrice. Bratton & Wachter, *supra* note 9, at 110–11.

<sup>43</sup> According to political scientist David Ciepley, it was the impression left on the United States by the rise of totalitarianism—of which economic progressivism was seen as a dangerous antecedent—which had a major role in directing this change of approach. CIEPLEY, *supra* note 41, at 1–9; see also David Ciepley, *Authority in the Firm (and the Attempt to Theorize It Away)*, 16 CRITICAL REV. 81, 83–84 (2004).

<sup>44</sup> See Cremers & Sepe, *supra* note 18, at 71, 123.

<sup>45</sup> Bratton, *supra* note 28, at 1492–93.

mindset of the time, only empowered boards could accomplish that goal, both because of their expertise (i.e., informational advantage) and their unique ability to resist the risk appetite of the “money makers”—bankers, brokers, and all sorts of speculators—who had played a major role in contributing to the Great Depression.<sup>46</sup>

That mindset suddenly changed in the late 1970s and early 1980s, mainly due to sudden stagflation and abysmal stock market performance, both of which problematized the productive mode of the management corporation.<sup>47</sup> Concurrently, the rise of the hostile takeover challenged boards’ empowered status, granting shareholders both the right to remove incumbents through the simple exercise of stock market purchasing power and a novel lever to influence investment policy.<sup>48</sup> With perfect timing, it was then that the neoclassical theory of the firm made its appearance. Rejecting centralized decisionmaking as a distinctive trait of totalitarianism,<sup>49</sup> neoclassicists viewed the firm as a web of contractual relationships among individuals, whose ongoing transactions were efficiently coordinated by the price mechanism.<sup>50</sup>

Michael Jensen and William Meckling’s 1976 article, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, is the landmark publication that formalized and directed the change of approach.<sup>51</sup> Emphasizing the position of shareholders as the firm’s residual claimants, Jensen and Meckling reconceptualized shareholder wealth maximization as the best proxy for overall wealth maximization and identified managerial moral hazard as the primary inefficiency to be addressed by corporate governance.<sup>52</sup> Viewed through this perspective, the market for corporate control was recast as the decentralized exercise of

---

<sup>46</sup> See *id.* (describing management discretion as an essential feature of the management corporation); Ciepley, *supra* note 43, at 105–07 (discussing the concerns caused by the “money makers” during the New Deal’s progressive era); Lynn A. Stout, Response, *The Toxic Side Effects of Shareholder Primacy*, 161 U. PA. L. REV. 2003, 2005 (2013) (describing the management corporation as immune to the logic of share price maximization).

<sup>47</sup> See Bratton & Wachter, *supra* note 9, at 144; Stout, *supra* note 46, at 2007–08.

<sup>48</sup> See Bratton, *supra* note 28, at 1520–21.

<sup>49</sup> See Ciepley, *supra* note 43, at 83–84.

<sup>50</sup> See, e.g., Armen A. Alchian & Harold Demsetz, *Production, Information Costs and Economic Organization*, in *ECONOMIC FORCES AT WORK* 73, 73–74 (Armen A. Alchian ed., 1977).

<sup>51</sup> See Jensen & Meckling, *supra* note 7. Frank Easterbrook and Daniel Fischel are credited with having reinstated Jensen and Meckling for corporate legal theory. See FRANK H. EASTERBROOK & DANIEL R. FISCHEL, *THE ECONOMIC STRUCTURE OF CORPORATE LAW* (1991).

<sup>52</sup> See Jensen & Meckling, *supra* note 7, at 305–08.

discrete contracting among shareholders that efficiently limited opportunistic managers from misusing valuable assets.<sup>53</sup>

With the end of the hostile takeover era in the mid-1990s, the case for a decentralized decisionmaking paradigm of the corporation took the novel form of a claim for “shareholder empowerment,” which has since gained consensus.<sup>54</sup> Shareholder empowerment first emerged as a response to the alleged impairment of the market’s operation due to the introduction of antitakeover statutes and the increased use by incumbents of antitakeover measures.<sup>55</sup> Its original agenda mainly included proposals for facilitating managerial and board removal by shareholders,<sup>56</sup> but it has progressively expanded to include proposals substantially shifting control of business policy from the board to shareholders.<sup>57</sup> Underpinning this extensive reform program is the argument, built on neoclassical assumptions, that shareholders, as residual claimants, have the best incentives to provide value-maximizing governance inputs.<sup>58</sup> Conversely, shareholder advocates argue, the incentives of directors and managers may deviate, driven by their private interest in compensation, private benefits, and job retention.<sup>59</sup>

Board advocates—defending the received board-centric model of the corporation on the ground of directors’ informational advantage vis-à-vis

<sup>53</sup> See, e.g., Henry G. Manne, *Mergers and the Market for Corporate Control*, 73 J. POL. ECON. 110, 113 (1965) (pioneering theoretical assertions that the takeover phenomenon constituted efficient market control of the corporation).

<sup>54</sup> The leading voice among shareholder advocates is Harvard Law School Professor Lucian Bebchuk. See, e.g., LUCIAN BEBCHUK & JESSE FRIED, *PAY WITHOUT PERFORMANCE: THE UNFULFILLED PROMISE OF EXECUTIVE COMPENSATION 195–98* (2004) (arguing that shareholders should play a greater role in setting executive compensation); Lucian Arye Bebchuk, *The Case Against Board Veto in Corporate Takeovers*, 69 U. CHI. L. REV. 973 (2002) (challenging board primacy in the takeover context); Lucian Arye Bebchuk, *The Case for Increasing Shareholder Power*, 118 HARV. L. REV. 833, 851–75 (2005) (advocating for the expansion of shareholder governance rights); Lucian A. Bebchuk, Essay, *The Myth of the Shareholder Franchise*, 93 VA. L. REV. 675, 694–711 (2007) (advocating for a reform of corporate elections to make directors more accountable to shareholders). For an exhaustive examination of the historical roots of the shareholder empowerment claim, see Dalia Tsuk Mitchell, *Shareholders as Proxies: The Contours of Shareholder Democracy*, 63 WASH. & LEE L. REV. 1503 (2006).

<sup>55</sup> See William W. Bratton & Michael L. Wachter, *The Case Against Shareholder Empowerment*, 158 U. PA. L. REV. 653, 671–72 (2010).

<sup>56</sup> See *id.* at 672–73 (including among the reform items of the original shareholder agenda: majority voting, the right to replace all incumbents every two or three years, the right to expanded access to the proxy statement, and the reimbursement of solicitation expenses).

<sup>57</sup> See *id.* at 673 (including among the items of the extended shareholder agenda: access to management’s proxy statements, the power to trump contrary board-adopted bylaws, and shareholder-initiated charter amendments).

<sup>58</sup> See, e.g., Henry Hansmann & Reinier Kraakman, Essay, *The End of History for Corporate Law*, 89 GEO. L.J. 439, 449 (2001) (“[I]f the control rights granted to the firm’s equity-holders are exclusive and strong, they will have powerful incentives to maximize the value of the firm.”).

<sup>59</sup> See, e.g., Bebchuk, *The Case for Increasing Shareholder Power*, *supra* note 54, at 850.

dispersed shareholders<sup>60</sup>—have largely stood in the minority since the emergence of the shareholder empowerment claim.<sup>61</sup> In fact, shareholder empowerment has become more a reality than an aspiration in recent years, mainly due to steady increases in shareholder concentration and activism, and the occurrence of legal changes that have rewarded the efforts of shareholder advocates.<sup>62</sup> There is, however, one additional factor—largely underappreciated in the corporate law scholarship—which has played a significant role in advancing the shareholder empowerment case. As we explain below, that factor is the rise of empirical studies supporting the idea that stronger shareholder rights equate to better corporate governance.

### B. *The Rise of Governance Indices*

Neoclassical theorists not only introduced new economic and financial concepts into the corporate governance debate, they also ushered in a revolution in methodology, incorporating empirical analysis into the study of corporate law.<sup>63</sup> Jensen and Meckling's postulate that maximizing shareholder value is the best means of maximizing firm value provided the theoretical underpinning for that revolution. On that postulate, it was now possible to test the efficiency of corporate law rules and corporate governance arrangements by estimating their impact on corporate performance as proxied by measures of shareholder value.<sup>64</sup>

---

<sup>60</sup> Although board advocates defend various theories of board authority, the informational advantage of boards emerges as a shared feature of these theories. See, e.g., Stephen M. Bainbridge, *Director Primacy: The Means and Ends of Corporate Governance*, 97 NW. U. L. REV. 547, 550, 559–74 (2003) (exposing a theory of the corporation that combines board primacy and share value maximization); Margaret M. Blair & Lynn A. Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247, 250–55 (1999) (developing a theory of the corporation that embraces board authority, while rejecting shareholder wealth maximization); Bratton & Wachter, *supra* note 55, at 658–61 (defending the traditional board-centric model of the corporation). Members of the Delaware judiciary also feature prominently among board advocates. See, e.g., Jack B. Jacobs, “Patient Capital”: *Can Delaware Corporate Law Help Revive It?*, 68 WASH. & LEE L. REV. 1645 (2011); Leo E. Strine, Jr., Response, *Toward a True Corporate Republic: A Traditionalist Response to Bebchuk’s Solution for Improving Corporate America*, 119 HARV. L. REV. 1759 (2006). Martin Lipton, a noted corporate lawyer, has also long been a leading defendant of board power. See, e.g., Martin Lipton, *Takeover Bids in the Target’s Boardroom*, 35 BUS. LAW. 101 (1979).

<sup>61</sup> See Bratton & Wachter, *supra* note 9, at 100, 145–46.

<sup>62</sup> See Cremers & Sepe, *supra* note 18, at 69–70, 135–36.

<sup>63</sup> See Roberta Romano, *After the Revolution in Corporate Law*, 55 J. LEGAL. EDUC. 342, 351 (2005).

<sup>64</sup> See *id.* at 356 (noting that empirical work depends on shared goal specification and that the end of maximizing shareholder wealth provided that specification). But see *infra* Section II.A.2. (revisiting this view of the relationship between shareholder wealth maximization and efficiency analysis of corporate law).

Since the mid-1980s, the march of corporate law scholars into the realm of empirical research has steadily and inexorably increased,<sup>65</sup> producing innumerable empirical studies examining how individual governance arrangements relate to corporate performance.<sup>66</sup> Arrangements and mechanisms that have been studied include, among others, board composition and size, shareholder activism, proxy fights, antitakeover defenses, and voting rights.<sup>67</sup> These studies, however, have failed to identify a consistent relationship between governance and performance. A plausible explanation for this outcome—as observed by Sanjai Baghat, Brian Bolton, and Roberta Romano—is that “there are limitations with a research design that examines the effect on performance of only one dimension of a firm’s governance when governance mechanisms are numerous and interaction effects are quite probable.”<sup>68</sup>

The limitations affecting studies of individual governance arrangements also help explain the popularity of governance indices. Unlike the previous studies, empirical studies employing governance indices investigate a firm’s governance quality by focusing on multiple governance provisions, which are assumed to be conducive to either desirable or undesirable outcomes. These multiple provisions are then combined into an index, in which, typically, a score is added for any of the selected provisions that is present in a given firm. This methodology thus effectively collapses the multiple dimensions of a firm’s governance into one number: the overall index’s score.

For Baghat et al., this ability of governance indices to “quantify” a firm’s governance quality through one easily understandable measure is the indices’ key attribute.<sup>69</sup> From a policy perspective, however, the indices’ primary advantage is to offer an empirical design that is well suited to test theoretical predictions about the efficiency of alternative governance models, which, by definition, involve a multiplicity of governance dimensions rather than just one dimension. Consistent with this view, the three governance indices that are widely regarded in the literature as the most influential—the “Antidirector Index,” the “G-Index,” and the “E-Index”—all focus on governance elements that attempt to test the

---

<sup>65</sup> See Randall S. Thomas, *The Increasing Role of Empirical Research in Corporate Law Scholarship*, 92 GEO. L.J. 981, 982–83 (2004) (reviewing MARK ROE, *POLITICAL DETERMINATES OF CORPORATE GOVERNANCE: POLITICAL CONTEXT, CORPORATE IMPACT* (2003)).

<sup>66</sup> See Baghat et al., *supra* note 14, at 1814.

<sup>67</sup> See *id.* at 1814–18 (providing a summary of these studies).

<sup>68</sup> *Id.* at 1818.

<sup>69</sup> See *id.*



efficiency of the two most popular models of governance: the traditional board-centric model and the increasingly popular shareholder-centric model.

The Antidirector Index represented the first, seminal attempt at pursuing such an analysis of corporate governance. Introduced in 1998 by a team of financial economists—Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny<sup>70</sup>—this index focused on shareholder protection laws around the world,<sup>71</sup> providing evidence that stronger shareholder protection is correlated with economic growth and market capitalization.<sup>72</sup>

The G-Index, introduced in 2003 by another team of financial economists—Paul Gompers, Joy Ishii, and Andrew Metrick<sup>73</sup>—extended the analysis begun by the Antidirector Index, considering firm-level governance arrangements in addition to laws “on the books” and focusing on a sample of large public U.S. firms.<sup>74</sup> Specifically, the G-Index is constructed as a composite of twenty-four “management power” (or “weak shareholder rights”) features.<sup>75</sup> Higher index scores capture firms with a more board-centric governance model, which Gompers et al. call a “dictatorship” model.<sup>76</sup> Lower index scores capture, instead, firms with a more shareholder-centric governance model, which Gompers et al. refer to as a “democratic” model.<sup>77</sup> Like the Antidirector Index, use of the G-Index yielded results consistent with the theoretical assumption that stronger shareholder rights equate to better governance practices, showing that from 1990 to 1999 firms with higher index scores (i.e., the “Democracy Portfolio”) had higher financial value than firms with lower index scores (i.e., the “Dictatorship Portfolio”).<sup>78</sup>

The E-Index (or entrenchment index) is an index including a subset of G-Index provisions. Developed in 2009 by a team of Harvard professors—

---

<sup>70</sup> See Rafael La Porta et al., *Law and Finance*, 106 J. POL. ECON. 1113 (1998).

<sup>71</sup> Specifically, the Antidirector Index focused on rules on “voting powers, ease of participation in corporate voting, and legal protection against expropriation by management.” *Id.* at 1115.

<sup>72</sup> See *id.* at 1116. The other notable result delivered by the Antidirector Index was that common law countries are more protective of investors than civil law countries. See *id.* For a review of the follow-up research as well as of the criticism engendered by *Law and Finance*, see La Porta et al., *supra* note 8.

<sup>73</sup> See Paul Gompers et al., *Corporate Governance and Equity Prices*, 118 Q.J. ECON. 107 (2003).

<sup>74</sup> See *id.* at 109 & n.4.

<sup>75</sup> *Id.* at 109.

<sup>76</sup> *Id.*

<sup>77</sup> *Id.*

<sup>78</sup> *Id.* at 109–10.

Lucian Bebchuk, Alma Cohen, and Allen Ferrell (BCF)<sup>79</sup>—the E-Index was motivated to overcome the major methodological concern raised by the G-Index: the inclusion of an excessive number of governance arrangements of unequal relevance.<sup>80</sup> The E-Index only retained six of the twenty-four G-Index provisions, which BCF hypothesized mattered the most for excessive management power, i.e., entrenchment.<sup>81</sup> These provisions include staggered boards, poison pills, golden parachutes, supermajority requirements for mergers, supermajority requirements for charter amendments, and supermajority requirements for bylaws amendments.<sup>82</sup> Consistent with the hypothesis that reducing entrenchment is what matters the most in corporate governance, BCF found that the E-Index’s six governance provisions largely drove the negative empirical correlation of the G-Index with firm value.<sup>83</sup>

Therefore, the evidence obtained for each of the above governance indices supports the view that stronger shareholder rights, and correspondingly lower entrenchment levels, are what draw the line between good and bad governance. The connection between this empirical finding and the case for empowering shareholders is clear and, as we shall discuss next, has exerted huge impact not just within academic circles, but among policymakers and real corporate actors as well.

### C. *The End of History for Corporate Governance*

In theory, both a shareholder-centric model and a board-centric model have merits. The introduction of governance indices, however, enabled shareholder advocates to assert seemingly objective empirical evidence to defend the shareholder-centric model as superior: firms with empowered shareholders outperformed their peers with empowered boards. On this view, it is unsurprising that a few years after the introduction of the Antidirector Index, Reinier Kraakman and Henry Hansmann declared that “*The End of History for Corporate Law*” had arrived.<sup>84</sup> The shareholder-centric view of the corporation, they argued, had “earned its position as the

---

<sup>79</sup> See Bebchuk et al., *supra* note 12.

<sup>80</sup> *Id.* at 784 (“Some [G-Index] provisions might have little relevance, and some provisions might even be positively correlated with firm value. Among those provisions that are negatively correlated with firm value or stock returns, some might be more so than others.”).

<sup>81</sup> See *id.* at 788.

<sup>82</sup> *Id.* at 784–85; see also *infra* Section II.B.1 (providing a summary of the explanations offered by BCF to account for the specific institutional mechanisms that create entrenchment within each provision).

<sup>83</sup> See *id.* at 786.

<sup>84</sup> Hansmann & Kraakman, *supra* note 58, at 439.

dominant model of the large corporation the hard way, by out-competing” alternative governance models, including the traditional board-centric model.<sup>85</sup> As proved by the empirical findings obtained for the Antidirector Index—and even more so by the subsequent empirical findings obtained for the G-Index and E-Index—the market had provided a negative answer to the value of these alternative models, showing that enhanced board authority and managerial discretion inevitably resulted in “inefficiency of operations and excessive investment in low-value projects.”<sup>86</sup>

The idea that good corporate governance is equivalent to stronger shareholder rights, while managerial entrenchment epitomizes bad governance, has won not just the academic debate. It has also gained predominance in the policy debate, both in the United States and internationally. At the national level, the enhancement of shareholder protection has figured prominently in both the Sarbanes–Oxley Act of 2002<sup>87</sup> and the Dodd–Frank Act of 2010.<sup>88</sup> Likewise, at the international level, the influential *Principles of Corporate Governance* issued by the Organisation for Economic Co-operation and Development (OECD) have traditionally placed strong emphasis on market forces and the alignment of manager and shareholder interests as primary disciplining devices.<sup>89</sup>

Yet perhaps the most tangible sign of the support provided by governance indices for shareholder empowerment is the use to which they have been put by proxy advisory firms. These firms provide investors with voting recommendations on the election of directors, shareholder resolutions, merger proposals, and any other matter on which shareholders

---

<sup>85</sup> *Id.* at 468 (referring to the board-centric model as “the managerialist model”).

<sup>86</sup> *Id.* at 444.

<sup>87</sup> Sarbanes–Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745, 745 (2002) (aiming “[t]o protect investors by improving the accuracy and reliability of corporate disclosures made pursuant to the securities laws”).

<sup>88</sup> Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, sec. 951, § 14A(a)(1), 124 Stat. 1376, 1899 (2010) (codified as amended at 15 U.S.C. § 78n-1 (2012)) (introducing say-on-pay shareholder votes and expanding the scope of shareholder proposals). For a discussion of other measures that have sustained shareholder empowerment at the regulatory level in the past two decades, see *infra* text accompanying notes 292–95.

<sup>89</sup> See OECD, OECD PRINCIPLES OF CORPORATE GOVERNANCE 11–12 (2004), <http://www.oecd.org/corporate/ca/corporategovernanceprinciples/31557724.pdf> [<https://perma.cc/F2AT-DLKD>]. The OECD Principles are seen as best practices for multinational companies, rather than legal rules that could conflict with state or federal law. *Id.* at 4. The OECD, however, has recently enacted new Principles that seem to embrace a less shareholder-friendly view of corporate governance and, simultaneously, place more importance on both the coordination role played by the board of directors and the role of other firms’ stakeholders. See OECD, G20/OECD PRINCIPLES OF CORPORATE GOVERNANCE 13, 18–19 (2015), <http://www.oecd-ilibrary.org/docserver/download/2615021e.pdf?expires=1456694506&id=id&accname=guest&checksum=2C7640420AE9C8C0EB055AC31143882F> [<https://perma.cc/B9SZ-C76U>].

vote, playing a major role in influencing corporate governance policies at many U.S. corporations.<sup>90</sup> Institutional Shareholder Services (ISS), the largest proxy advisory firm, alone claims to advise over 1600 clients who manage over \$25 trillion in assets.<sup>91</sup>

In providing their services, ISS and other proxy advisors rely on commercial ratings that not only share the same approach of academic governance indices,<sup>92</sup> but also their basic assumption that enhanced shareholder rights are consistent with best governance practices. Thus, whether the “[c]ompany is incorporated in [a] state without any state anti-takeover provisions” and has a unitary board (or passed a proposal to declassify the board) figure prominently among the most important variables included in the ISS’s “Corporate Governance Quotient.”<sup>93</sup> Even more noticeably, the “Board Accountability Index” used by Glass, Lewis & Company, the second largest proxy advisor,<sup>94</sup> includes five of the six entrenchment components of the E-Index.<sup>95</sup>

Further, while the studies employing academic governance indices have generally been cautious in avoiding any causality claim, proxy advisory firms exercise no such caution.<sup>96</sup> ISS, for example, claims that its ratings can “identify the worst corporate offenders.”<sup>97</sup> Anecdotal evidence also suggests that advisory ratings do change a firm’s governance practices,

<sup>90</sup> See Paul Rose, *The Corporate Governance Industry*, 32 J. CORP. L. 887, 898–906 (2007) (providing a description of the major players in the corporate governance industry).

<sup>91</sup> See Robert D. Hershey Jr., *A Little Industry with a Lot of Sway on Proxy Votes*, N.Y. TIMES, Jan. 18, 2006, at B6 (describing proxy advisors generally as wielding extraordinary influence over corporate practices and identifying ISS as the most prominent advisory firm).

<sup>92</sup> Academic and commercial governance indices share the same methodology to the extent that they both collapse several governance dimensions into one single number: an overall index score. See Bhagat et al., *supra* note 14, at 1807. However, commercial governance indices also “differ distinctively . . . on several important dimensions.” *Id.* at 1824–25. For example, commercial indices vary the weights accorded to different governance provisions, rather than attributing the same weight to each provision as academic indices do. *Id.* at 1825; see also Robert M. Daines et al., *Rating the Ratings: How Good Are Commercial Governance Ratings?*, 98 J. FIN. ECON. 439, 441–42 (2010) (discussing methodological differences between academic and commercial indices).

<sup>93</sup> ISS, EXPLAINING THE CGQ METHODOLOGY CHANGE PROCESS 3 (2005), <https://web.archive.org/web/20070413041233/http://www.issproxy.com/pdf/CGQevolvingmethodologyWP.pdf> [<https://perma.cc/R9M-WG82>]. Although the exact variables (and how they are weighted) are proprietary, ISS has disclosed the most important variables in the Corporate Governance Quotient. See *id.* ISS has subsequently replaced the Corporate Governance Quotient with Governance Risk Indicators (GRId) and then with the ISS Governance Quickscore (IGC).

<sup>94</sup> Glass Lewis, CTR. ON EXECUTIVE COMPENSATION, <http://www.execcomp.org/Issues/Issue/proxy-advisory-firms/glass-lewis> [<https://perma.cc/H4A9-T985>].

<sup>95</sup> Bhagat et al., *supra* note 14, at 1822. Compared to the E-Index, the Board Accountability Index excludes supermajority requirements for charter amendments. See *id.* at 1822 n.65.

<sup>96</sup> See *id.* at 1806–07.

<sup>97</sup> Daines et al., *supra* note 92, at 439.

as boards have grown increasingly aware of the effect that a bad rating can have on their firm's capacity to attract investors.<sup>98</sup> It is thus unsurprising that Martin Lipton, noted corporate lawyer and outspoken defender of the received board-centric model of the corporation, blames "influential proxy advisory firms" as having played a major role in contributing to the increasing erosion of board authority in favor of enhanced shareholder rights.<sup>99</sup> What is less frequently observed, though, is that the rise of academic governance indices has provided the intellectual support for the engagement of proxy advisory firms among shareholder advocates.

#### D. The End of "The End of History"?

For almost two decades, shareholder advocates have relied on the empirical literature on governance indices in their push for shareholder empowerment. They have been remarkably successful, holding the upper hand not just among academics, but also among policymakers and real corporate actors. "Corporate governance," however, "is a moving target."<sup>100</sup> As illustrated earlier, its history is studded with recurring turning points as changes in the marketplace or legal rules continuously bring about new practices and refocus scholarly attention on new matters of interest.<sup>101</sup> After the 2008 financial crisis, we seem to have arrived at another one of these points. Indeed, while the regulatory response to the crisis has again involved an enhancement of shareholder power, corporate governance research has registered a major shift in interests, both theoretically and empirically.

Recently the case for a board-centric governance model has received renewed interest due to the prominence gained by short-termism concerns during the recent financial crisis. These concerns arise out of the risk that "impatient" shareholders—those who are discounting future gains heavily due to short-term liquidity needs<sup>102</sup>—might prefer investments with high short-term results at the expense of long-term firm value.<sup>103</sup> Challenging the

---

<sup>98</sup> In a recent survey, for example, public firm directors have listed corporate governance advisors as the third most influential institution on boards, behind only institutional investors and analysts. *Id.* at 440.

<sup>99</sup> Martin Lipton, *Some Thoughts for Boards of Directors in 2008*, BRIEFLY, Jan. 2008, at 1, 1.

<sup>100</sup> William W. Bratton & Michael L. Wachter, *The Eclipse of the Shareholder Paradigm* 47 (Jan. 15, 2015) (unpublished manuscript) (on file with the *Northwestern University Law Review*).

<sup>101</sup> See *supra* Section I.A.

<sup>102</sup> See, e.g., Bratton & Wachter, *supra* note 100, at 16, 36.

<sup>103</sup> It appears that the first commentator to raise short-termism concerns was Martin Lipton. See William T. Allen & Leo E. Strine, Jr., *When the Existing Economic Order Deserves a Champion: The Enduring Relevance of Martin Lipton's Vision of the Corporate Law*, 60 *BUS. LAW.* 1383, 1383–84

assumption that shareholders have the best incentives to provide value-maximizing governance inputs, short-termism undermines the normative desirability of shareholder empowerment. The standard response by shareholder advocates is that short-termism depends on a market imperfection that has yet to be shown as real.<sup>104</sup> Under the mainstream neoclassical assumption that current stock prices fully capture the present discounted value of a firm's future income (i.e., the strong version of the Efficient Capital Market Hypothesis),<sup>105</sup> short-termist incentives could be assumed to translate into a lower stock price today and, then, be competed away by efficient markets.<sup>106</sup> Today, however, that argument is diluted of much of its strength. As shown by the near collapse of the U.S. financial system, “security mispricing, instead of being a temporary self-correcting problem, [is] . . . a problem that could and ha[s] spiraled out of control.”<sup>107</sup> Therefore, short-termism concerns are not merely theoretical; they are real and weaken the case for efficient shareholder control of the corporation.

The argument that the rise of activist hedge funds and the steady increase in institutional shareholdings<sup>108</sup> have added to the risk of short-termism has also proved central to the new momentum of board advocates.<sup>109</sup> On the one hand, most hedge funds are impatient investors in search of near- or intermediate-term value.<sup>110</sup> On the other, money managers—who exercise much of shareholder power today—are also likely to support corporate policies designed to boost short-term earnings,

---

(2005). In more recent times, short-termism concerns have come from academics, organizational leaders, business columnists, corporate lawyers, and business organizations. *See* Bebchuk, *supra* note 14, at 1639–40 & nn.2–11 (quoting the most important contributions expressing short-termism concerns).

<sup>104</sup> *See, e.g.*, Mark J. Roe, *Corporate Short-Termism—In the Boardroom and in the Courtroom*, 68 BUS. LAW. 977, 978–79 (2013).

<sup>105</sup> *See* Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. FIN. 383, 383 (1970).

<sup>106</sup> *See* Roe, *supra* note 104, at 981–83.

<sup>107</sup> *See* Allen & Strine, *supra* note 103, at 1383–84 (quoting Michael Jensen).

<sup>108</sup> The phenomenon of ownership reconcentration has steadily grown since the 1990s, when scholars first began to take note of it. *See, e.g.*, Bernard S. Black, *Shareholder Passivity Reexamined*, 89 MICH. L. REV. 520, 570 (1990) (documenting that the percentage of institutional ownership in New York Stock Exchange (NYSE) companies had increased from 45.2% in 1980 to 54.4% in 1988). Today's institutional investors also seem more willing to take an active governance stance than they have been in the past, especially in cooperation with hedge funds. *See, e.g.*, Ronald J. Gilson & Jeffrey N. Gordon, *The Agency Costs of Agency Capitalism: Activist Investors and the Revaluation of Governance Rights*, 113 COLUM. L. REV. 863, 896 (2013).

<sup>109</sup> *See, e.g.*, Martin Lipton, *Important Questions About Activist Hedge Funds*, HARV. L. SCH. F. ON CORP. GOVERNANCE & FIN. REG. (Mar. 9, 2013), <http://blogs.law.harvard.edu/corpgov/2013/03/09/important-questions-about-activist-hedge-funds/> [<http://perma.cc/VSA5-RAB9>] (defending the view that hedge funds and other shareholder advocates “are preying on American corporations”).

<sup>110</sup> Bratton & Wachter, *supra* note 55, at 682.

as they thrive by increasing their portfolios' current value.<sup>111</sup> In spite of the attempt by shareholder advocates to downplay short-termism as a marginal problem, the current corporate scenario would thus make it much more likely that a substantial number of shareholders might have a short-term investment horizon.<sup>112</sup>

Empirically, new studies have also appeared that examine the ill effects stemming from the combination of asset pricing inefficiency and short-term shareholder pressure. Theoretical models of rational managerial myopia—which were developed during the takeover era but so far lacked empirical confirmation—have provided the common starting point of these studies.<sup>113</sup> Departing from the mainstream neoclassical account of the market for corporate control,<sup>114</sup> myopia models suggested that an excessive focus on stock market results, combined with imperfectly informative market prices, could induce managers to privilege short-term stock price gains over long-term cash flows.<sup>115</sup> As these concerns challenge the assumption that a firm's antitakeover provisions are merely a product of managerial opportunism, such provisions have naturally represented a major focus of interest in the new empirical profile. In particular, a series of recent studies has challenged prior empirical results documenting a negative value impact of staggered boards<sup>116</sup>—one of the most widely used takeover defenses and a central component of both the G-Index and the E-Index. In arguably the most comprehensive among these studies (the

---

<sup>111</sup> See Leo E. Strine, Jr., Essay, *Can We Do Better by Ordinary Investors? A Pragmatic Reaction to the Dueling Ideological Mythologists of Corporate Law*, 114 COLUM. L. REV. 449, 450–51 (2013) (describing a divergence of interest between money manager intermediaries with short-termist preferences and their beneficiaries, depicted as long-term investors).

<sup>112</sup> See Cremers & Sepe, *supra* note 18, at 116–17 (arguing that the rise of activist hedge funds and increased institutional shareholdings may increase the likelihood of Keynesian, i.e., speculative, prices).

<sup>113</sup> See Bratton & Wachter, *supra* note 100, at 56–58 (providing a brief summary of new myopia studies).

<sup>114</sup> See *supra* note 53 and accompanying text.

<sup>115</sup> See, e.g., Adam Brandenburger & Ben Polak, *When Managers Cover Their Posteriors: Making the Decisions the Market Wants to See*, 27 RAND J. OF ECON. 523, 529 (1996) (arguing that managers may have incentives to take the decisions an uninformed market wants to see when they fear shareholder discipline); M.P. Narayanan, *Managerial Incentives for Short-Term Results*, 40 J. FIN. 1469, 1470 (1985) (“By selecting a project that yields short-term profits, the manager can expect to improve the perception about her ability . . . .”); Jeremy C. Stein, *Efficient Capital Markets, Inefficient Firms: A Model of Myopic Corporate Behavior*, 104 Q.J. ECON. 655, 667 (1989) (modeling suboptimal investments where managers maximize a weighted average of near-term stock prices and long-run value); Jeremy C. Stein, *Takeover Threats and Managerial Myopia*, 96 J. POL. ECON. 61, 63–67 (1988) (showing formally that managers threatened by a takeover will sell underpriced assets).

<sup>116</sup> For a description of these studies, see Daniel M. Gallagher & Joseph A. Grundfest, *Did Harvard Violate Federal Securities Law?: The Campaign Against Classified Boards of Directors* 34–41 (Rock Ctr. for Corp. Governance, Working Paper No. 199, 2014), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2536586](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2536586) [<http://perma.cc/PDR2-DKC7>].

Cremers–Sepe study), two of us examined over thirty years of staggering and destaggering decisions, showing that as firms adopted a staggered board, their financial value increased, whereas firms that repealed a staggered board suffered subsequent drops in value.<sup>117</sup>

Our explanation for the constructive governance role that staggered boards seem to serve—an explanation for which we find strong support in the data—is that they help mitigate what we refer to as the shareholders’ “limited commitment problem.”<sup>118</sup> Faced with asset pricing inefficiency and vested with strong exit rights, shareholders are unable to credibly commit to long-term value creation. That is, they cannot commit *not* to seek board removal or dump their shares upon a disappointing short-term outcome, as they are unable to tell whether such an outcome is due to mismanagement or to the pursuit of a longer-term project. In response to this problem, directors and managers rationally develop myopic incentives. A related problem arises with the firm’s other stakeholders—employees, customers, suppliers, and creditors—as the value of their firm-specific investments might also be reduced by the shareholders’ ability to seek a short-term change in investment policy or rapidly sell their shares.<sup>119</sup> In either case, the result is a decrease in firm value in the long run. Viewed through this lens, the adoption of a staggered board adds value by providing for longer directorial terms and thereby limiting the ability of shareholders to interfere with directors’ decisionmaking in the short term.<sup>120</sup>

The new matters of interest taken up by governance scholars—asset pricing inefficiency, short-termism, myopic concerns, and the limited commitment problem—all point in the same direction: empowering shareholders may produce externalities that outweigh any potential benefits. The contrast with the evidence on governance indices and their basic proposition—that stronger shareholder rights are the essential

---

<sup>117</sup> Cremers & Sepe, *supra* note 18, at 101–04. For a broader discussion of the empirical aspects of our analysis, see K.J. Martijn Cremers et al., *Staggered Boards and Firm Value, Revisited* (May 2016) (unpublished manuscript), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2364165](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2364165) [<http://perma.cc/7PH6-CVSH>].

<sup>118</sup> See Cremers & Sepe, *supra* note 18, at 73, 114–15.

<sup>119</sup> See *id.* at 121–23.

<sup>120</sup> See *id.* at 74–75, 123; see also K.J. Martijn Cremers & Simone M. Sepe, *The Financial Value of Corporate Law: Evidence from (Re)incorporations* (Nov. 2015) (unpublished manuscript), <http://ssrn.com/abstract=2519238> [<http://perma.cc/2GHE-SQ37>] (documenting that firm value increases following (re)incorporation in a state with more, or more severe, antitakeover statutes, especially for firms that are more likely to be affected by the limited commitment problem); William C. Johnson et al., *The Bonding Hypothesis of Takeover Defenses: Evidence from IPO Firms*, 117 J. FIN. ECON. 307 (2015) (empirically documenting that in IPO firms, takeover defenses reduce the possibility that a change in control will harm the firm’s stakeholders, promoting more favorable contracting terms and increasing firm value).



component of good corporate governance—is apparent. However, in spite of the huge impact the indices have exerted, and continue to exert, on the real corporate governance debate, no revision of the value impact of the indices, and each of their components, has yet appeared in the literature.

We hence turn to that task, revisiting the empirical evidence obtained for the E-Index as well as each of its six constituent provisions. Three main reasons motivate our choice of focusing on this index among those examined above. First, the Antidirector Index focuses on a cross-country analysis, rather than the internal governance arrangements of U.S. corporations,<sup>121</sup> which represent our field of interest. Second, as compared to the G-Index, the E-Index presents fewer methodological concerns, as it considers a more restricted number of entrenchment provisions that allegedly fully drive the negative association with firm value.<sup>122</sup> Third, as of June 2016, over three hundred empirical corporate governance studies have used the E-Index as a measure of governance quality.<sup>123</sup> This suggests that the E-Index has largely become the standard reference in the literature to identify what matters for corporate governance and firm value.

## II. CORPORATE GOVERNANCE REVISITED

In this Part, as well as in Part III that follows, we empirically revisit the association between the E-Index (and each of the six provisions it includes) and firm value, expanding the original analysis that appeared in the study by Bebchuk et al. (BCF) (i.e., from 1990 to 2002) to a much larger data sample, which covers thirty years of corporate governance choices (i.e., from 1978 to 2008). In doing so, as explained below, we pursue a two-fold research objective, concerning both the means and ends of corporate governance.

### *A. Research Objectives and Empirical Methodology*

*1. The Means Axis.*—Our primary purpose in revisiting the results obtained for the E-Index is to advance the ongoing debate on the means of corporate governance, offering novel evidence as to what matters for firm value and desirable governance models. The BCF study suggests that reducing managerial entrenchment is what matters the most, strengthening the case for a shareholder-centric governance model.<sup>124</sup> That evidence,

---

<sup>121</sup> See *supra* text accompanying note 71.

<sup>122</sup> See *supra* text accompanying note 83.

<sup>123</sup> See *supra* note 14.

<sup>124</sup> See *supra* text accompanying notes 79–83.

however, stands in contrast with more recent empirical studies suggesting that empowering boards to resist shareholder and market pressures is beneficial to promote long-term value creation.<sup>125</sup> There are three potential explanations for this conflicting evidence. The first potential explanation is that not all the provisions included in the E-Index matter equally for aggravating entrenchment, or that some may have offsetting benefits, such as mitigating the limited commitment problem.

Relatedly, it might be that the E-Index is affected by either a “specification problem” or a “reverse causality problem.” Empiricists refer to a specification problem when changes in the dependent variable might be attributable to factors other than changes in the independent variable.<sup>126</sup> As applied to the E-Index’s analysis, this could then mean that changes in firm value might be attributable to differences in firm characteristics other than having adopted one of the index’s entrenchment provisions. A reverse causality problem is instead said to occur when the dependent variable causes changes in the independent variable, rather than the other way around.<sup>127</sup> In other words, a relatively low firm value would induce firms to adopt such entrenchment provisions.

In order to empirically verify the above hypotheses, we employ both a cross-sectional analysis and a time-series analysis of the association between the E-Index (and its components) and firm value. A cross-sectional analysis compares how differences in firm value are associated with differences in the adoption of the E-Index provisions *across different firms* for any given year in a panel dataset.<sup>128</sup> This kind of analysis can provide useful snapshots of the association between firm value and the E-Index provisions over different years. However, it cannot capture temporal variations within the same firms and, therefore, is especially vulnerable to either specification or reverse causality problems. This explains why using a time-series analysis that employs firm fixed effects is regarded as a more reliable method of identifying empirical relationships in econometrics.<sup>129</sup> Unlike a cross-sectional analysis, a time-series analysis controls for any and all firm variables that do not change over time—that is, a firm’s “fixed

---

<sup>125</sup> See *supra* text accompanying notes 116–20.

<sup>126</sup> See, e.g., WILLIAM H. GREENE, *ECONOMETRIC ANALYSIS* 56–58 (7th ed. 2012).

<sup>127</sup> See *id.*

<sup>128</sup> See JEFFREY M. WOOLDRIDGE, *INTRODUCTORY ECONOMETRICS: A MODERN APPROACH* 846 (5th ed. 2013).

<sup>129</sup> See, e.g., Jerry A. Hausman & William E. Taylor, *Panel Data and Unobservable Individual Effects*, 49 *ECONOMETRICA* 1377, 1377 (1981) (stating that using fixed effects represents a common unbiased method of controlling for omitted variables).

effects”—for each firm included in a panel dataset.<sup>130</sup> In other words, this analysis adds a separate dummy variable for each unique firm, allowing the examination of what change in firm value *within that firm* occurred before or after a change in any of the E-Index components. Controlling for firm fixed effects thus significantly mitigates both specification and reverse causality problems.

We emphasize that while BCF also employed firm fixed effects, they only rely on a twelve-year period (1990–2002).<sup>131</sup> Conversely, we can rely on the availability of data over a considerably longer time period (1978–2008) and arguably many more changes in the E-Index components.<sup>132</sup> As significant time variation is essential to meaningful time-series analysis, our analysis should then be regarded as allowing a more robust statistical analysis of the time-series association between corporate governance and firm value.<sup>133</sup>

2. *The End Axis.*—Our ability to trace the association between governance arrangements and firm value over thirty years also matters for the debate around the ends of corporate governance. In the standard account, Jensen and Meckling would have resolved the debate with the intuition that maximizing shareholder wealth is the best means toward

---

<sup>130</sup> JEFFREY M. WOOLDRIDGE, *ECONOMETRIC ANALYSIS OF CROSS SECTION AND PANEL DATA* 756 (2d ed. 2010) (“The time series dimension . . . allows us to control for unobserved heterogeneity in the cross section units, and to estimate certain dynamic relationships.”).

<sup>131</sup> See Bebchuk et al., *supra* note 12, at 802 tbl.4.

<sup>132</sup> This seems especially important if one considers the transformations that have taken place in the corporate landscape both before and after the time period examined by BCF. As discussed earlier, the years from 1978 to 1989 correspond to the “takeover era.” See *supra* text accompanying notes 47–48. This era marked the beginning of the erosion of the traditional board-centric model by active institutional investors, which produced significant variation in the use of antitakeover defenses and other entrenchment provisions. See Martijn Cremers & Allen Ferrell, *Thirty Years of Shareholder Rights and Firm Value*, 69 J. FIN. 1167, 1167–69 (2014). The 2002–2008 period also witnessed a dramatic transformation of U.S. corporate governance. On the one hand, there was the introduction of substantial regulatory reforms, both at the federal and state levels, following Enron and the other corporate governance scandals of the early 2000s. See *supra* text accompanying notes 87–88. On the other hand, shareholder empowerment progressively became a reality in those years. See *supra* note 54 and accompanying text.

<sup>133</sup> Our ability to investigate comparisons of the long-term value associations of governance choices also helps address more general criticisms that have been raised against the use of governance indices. These criticisms have mainly been directed at challenging the notion that a “one-size-fits-all” model of corporate governance might exist. See, e.g., Bhagat et al., *supra* note 14, at 1808; Rose, *supra* note 90, at 924–25. For these scholars, corporate governance “depends on context and on firms’ specific circumstances.” Bhagat et al., *supra* note 14, at 1808. Hence, governance arrangements that are good for one firm might be bad for another, and vice versa. Empirically, this argument translates into an endogeneity concern—more precisely, a specification problem—which our time-series analysis should help to mitigate.

maximizing overall wealth.<sup>134</sup> As received by many corporate law scholars, especially in the 1990s and early 2000s, that intuition implied that maximizing shareholder wealth was the only end of corporate law. As a proof of that claim, these scholars argued that it was the empirical consensus on shareholder primacy that had enabled the use of empirical tools in corporate governance research, opening the door to employing shareholder value metrics as measures of corporate governance efficiency.<sup>135</sup>

This account, however, fails to consider the intertemporal dynamics of the shareholder wealth maximization mandate, while also oversimplifying the relationship between that mandate and the use of shareholder value metrics in efficiency analysis. Without specifying what the process of creating shareholder wealth involves over time, such a process inevitably turns into a requirement to cater to today's stock price. That requirement, however, ignores crucial intertemporal issues in the efficiency of market prices. Indeed, only under the assumption of perfectly informative prices can managing based on the current market price be assumed to serve the end of overall value maximization. Yet, as soon as we depart from the strong version of the Efficient Capital Market Hypothesis, a hypothesis that the recent financial crisis has exposed as unrealistic, managing based on the current price promotes short-termism and other inefficiencies.<sup>136</sup> Further, for similar negative results to arise, one need not assume that market prices are systematically uninformative.<sup>137</sup> It is instead sufficient to assume that market prices are "discontinuous," that is, unable of fully capturing the implications of directorial and managerial decisions until those implications begin to show up in cash flows over time.<sup>138</sup>

In response to these intertemporal dynamics, corporate law scholars have increasingly emphasized the need to focus on long-term shareholder

---

<sup>134</sup> See *supra* note 52 and accompanying text.

<sup>135</sup> See *supra* note 64 and accompanying text.

<sup>136</sup> See *supra* text accompanying notes 102–07.

<sup>137</sup> Uninformative prices (or Keynesian prices), however, might cyclically occur, as two of us have explained in earlier work. See Cremers & Sepe, *supra* note 18, at 112–14.

<sup>138</sup> See Michael C. Jensen, *Value Maximization, Stakeholder Theory, and the Corporate Objective Function*, 14 J. APPLIED CORP. FIN. 8, 17 (2001). More technically, discontinuous prices are "nonmonotonic" in the sense that they do not follow a consistent informational pattern due to the information asymmetry problems existing between shareholders and managers. See Simone M. Sepe, *Information and the Corporation* (Feb. 2016) (unpublished manuscript) (on file with authors). The economic mechanisms explaining such inconsistency hinges on Bayesian updating, which identifies the process through which rational investors update their beliefs about firm value. See Paul R. Milgrom, *Good News and Bad News: Representation Theorems and Applications*, 12 BELL J. ECON. 380 (1981).

value as a more appropriate proxy for overall value maximization.<sup>139</sup> This signals a scholarly effort to transition to a more dynamic understanding of the shareholder wealth maximization mandate. Yet, acknowledging that short-term shareholder wealth might not be an accurate proxy for aggregate wealth does not remove the use of shareholder value metrics for efficiency analysis altogether, as suggested by some scholars.<sup>140</sup> Rather, it suggests that claims of societal efficiency (rather than mere shareholder efficiency) should rely less on event studies—which focus on short-term variations in measures of shareholder value—and more on studies that examine changes in such measures over the long term. Accordingly, our ability to rely on long-term changes in shareholder value positions our study to derive broader efficiency implications—advancing the understanding of the intertemporal aspects of the shareholder wealth maximization mandate as a means to an end, rather than as an end in itself.

### B. E-Index Provisions and Data Description

Turning to our empirical analysis of corporate governance, we begin by briefly reviewing the specific institutional mechanisms that, according to BCF, would explain why each of the six E-Index provisions causes entrenchment. Understanding those institutional mechanisms is important as they underlie the broader policy implications BCF derive from the results obtained for the E-Index. After that, we present the data for our empirical investigation of those provisions.

#### 1. E-Index Provisions.

*a. Staggered boards.*—In a staggered board, directors are grouped into different classes (usually three),<sup>141</sup> with each class standing for reelection in successive years, unlike in a unitary board,<sup>142</sup> where directors

---

<sup>139</sup> See, e.g., COLIN MAYER, *FIRM COMMITMENT: WHY THE CORPORATION IS FAILING US AND HOW TO RESTORE TRUST IN IT* 246–47 (2013); Sanjai Bhagat & Roberta Romano, Essay, *Reforming Executive Compensation: Focusing and Committing to the Long-Term*, 26 *YALE J. ON REG.* 359, 359 (2009); Leo E. Strine, Jr., *One Fundamental Corporate Governance Question We Face: Can Corporations Be Managed for the Long Term Unless Their Powerful Electorates Also Act and Think Long Term?*, 66 *BUS. LAW.* 1, 3 (2010). But see Jessie M. Fried, *The Uneasy Case for Favoring Long-Term Shareholders*, 124 *YALE L.J.* 1554, 1560 (2015).

<sup>140</sup> See, e.g., Jill E. Fisch, *Measuring Efficiency in Corporate Law: The Role of Shareholder Primacy*, 31 *J. CORP. L.* 637, 674 (2006) (criticizing the use of shareholder value metrics as proxies for overall firm value).

<sup>141</sup> See Richard H. Koppes et al., *Corporate Governance Out of Focus: The Debate over Classified Boards*, 54 *BUS. LAW.* 1023, 1029 & n.21 (1999).

<sup>142</sup> A unitary board structure is the default in all states, except for Massachusetts, Indiana, and Iowa, where the default is reversed. See, e.g., DEL. CODE ANN. tit. 8, § 141 (2015); MODEL BUS. CORP. ACT § 8.05 (AM. BAR ASS'N 2010); see also IND. CODE § 23-1-33-6(c) (2015) (default board is

serve a one-year term. When the staggering provision is in the charter, as is typical, this requires challengers in a proxy contest to win at least two election cycles to gain a board majority.<sup>143</sup> This delay raises costs for a challenger and would explain why staggered boards have come to be regarded as a “powerful defense against removal” of incumbents.<sup>144</sup>

*b. Three supermajority requirements.*—Three separate supermajority requirements make up the E-Index. Similar to staggered boards, these provisions would share the common feature of limiting the shareholders’ ability to use voting rights “to have their way” in corporate affairs.<sup>145</sup> In particular, supermajority requirements to amend the bylaws (supermajority bylaws) could considerably strengthen the effectiveness of a target’s defenses, preventing challengers from removing defenses that incumbents previously placed in the bylaws.<sup>146</sup> Supermajority requirements to amend the charter (supermajority charter) and supermajority requirements for mergers (supermajority mergers) are instead described by BCF as providing “a second line of defense” against takeovers by allowing insiders with a control block to defeat charter amendments or mergers even if they have lost control of the board.<sup>147</sup>

*c. Poison pills.*—A poison pill consists of stock purchase rights, which are granted to existing shareholders in the event a corporate raider accumulates more than a certain threshold of outstanding stock, and which entitle the shareholders (but not the raider) to acquire newly issued stock at a substantial discount from the market price.<sup>148</sup> Hence, by significantly diluting a bidder’s economic rights, a poison pill prevents hostile bidders from being successful unless the bidder can have the pill redeemed by a majority of newly appointed directors. However, if the target also has a staggered board in place, a bidder is required to wait through two annual elections before being able to do so. This would

---

staggered); IOWA CODE § 490.806A (2015) (same); MASS. GEN. LAWS ch. 156D, § 8.06(b)–(g) (2015) (same).

<sup>143</sup> Dismantling a staggered board established in the charter, rather than the bylaws, involves the coordinated action of the board and the shareholders, as charter amendments can only be initiated by the board and require shareholder approval. *See, e.g.*, DEL. CODE ANN. tit. 8, § 242(b) (2015); MODEL BUS. CORP. ACT § 10.03 (AM. BAR ASS’N 2010).

<sup>144</sup> Bebchuk et al., *supra* note 12, at 791.

<sup>145</sup> *Id.*

<sup>146</sup> *See id.* at 792.

<sup>147</sup> *Id.*

<sup>148</sup> *See* Wachtell, Lipton, Rosen & Katz, The Share Purchase Rights Plan, in RONALD J. GILSON & BERNARD S. BLACK, THE LAW AND FINANCE OF CORPORATE ACQUISITIONS 58–65 (2d ed. Supp. 2003) (setting forth the terms of a standard poison pill).

explain why poison pills are generally regarded as having “considerably strengthened the protections against replacement that incumbents have.”<sup>149</sup>

*d. Golden parachutes.*—A golden parachute is an executive pay component that entitles its beneficiaries to substantial payments following a change in control of their company, “sweetening” the adverse effects such a change imposes on management.<sup>150</sup> While recognizing the existence of several explanations for the adoption of golden parachutes, BCF state that they “might also have an adverse effect by increasing slack on the part of managers as a result of being less subject to discipline by the market for corporate control.”<sup>151</sup>

*2. Data Description.*—Our data for examining the E-Index provisions comes from several sources, with the overall data sample covering 2186 large publicly traded U.S. firms (i.e., firms in the S&P 1500) for the time period 1978–2008. In particular, we obtain data for *SM Charter*, *SM Bylaws*, *SM Merger*, and *Parachutes* (all indicator variables for the presence of the respective governance provision)<sup>152</sup> from two main sources. For the time period 1990–2008, we use the corporate governance dataset maintained by Risk Metrics, which acquired the former Investor Responsibility Research Center (IRRC).<sup>153</sup> For the period 1978–1989, we use a dataset constructed by one of us for an earlier coauthored study that provides information on the same provisions tracked by the IRRC for the period 1990–2008, including the five provisions of interest.<sup>154</sup> For *Poison Pill* and *Staggered Board* (two indicator variables for the presence of a poison pill and a staggered board, respectively), we instead obtain data for the period 1978–2011 from the dataset used in the finance companion of the Cremers–Sepe study.<sup>155</sup> We give equal weight to all provisions, attributing one point for each provision a firm has, as BCF did when constructing the E-Index.<sup>156</sup>

---

<sup>149</sup> Bebchuk et al., *supra* note 12, at 792.

<sup>150</sup> See generally Simone M. Sepe & Charles K. Whitehead, *Rethinking Chutes: Incentives, Investment, and Innovation*, 95 B.U. L. REV. 2027, 2036–43 (2015) (providing an exhaustive description of golden parachutes’ terms and practice).

<sup>151</sup> Bebchuk et al., *supra* note 12, at 793.

<sup>152</sup> Variables are briefly explained in Appendix Table A and descriptive statistics are provided in Appendix Table B.

<sup>153</sup> BCF also used data from IRRC for the period 1990–2002. Bebchuk et al., *supra* note 12, at 796–97.

<sup>154</sup> See Cremers & Ferrell, *supra* note 132, at 1168.

<sup>155</sup> See Cremers et al., *supra* note 117.

<sup>156</sup> See Bebchuk et al., *supra* note 12, at 798.

Since our main focus is on the value relevance of corporate governance, the main dependent variable in our analysis is firm value. Consistent with many prior studies investigating the relationship between governance arrangements and firm value, including the BCF study, we measure firm value using Tobin's Q ( $Q$ ),<sup>157</sup> retrieving data from Compustat.<sup>158</sup>

Finally, to control for factors other than the adoption of the six provisions included in the E-Index that could have an impact on firm value, we always include the following standard controls using Compustat data: the log of the book value of total assets (*Assets*), the return on assets calculated as the ratio of the firm's EBITDA<sup>159</sup> over the book value of total assets (*ROA*), the ratio of capital expenditures over the book value of total assets (*CAPX*), the ratio of research and development expenditures over sales (*R&D*), and, finally, a proxy of merger and acquisition activity at the industry level (*Industry M&A Volume*).<sup>160</sup>

### C. Incidence of the E-Index Provisions

We begin our reexamination of the E-Index by documenting the incidence of each of its six components in our sample of firms in Figure 1 below.

---

<sup>157</sup> Tobin's Q is the ratio of the market value of assets to the book value of 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). Tobin's Q has become a commonly recognized proxy for market valuation. See, e.g., 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); David Yermack, *Higher Market Valuation of Companies with a Small Board of Directors*, 40 J. FIN. ECON. 185, 186 (1996).

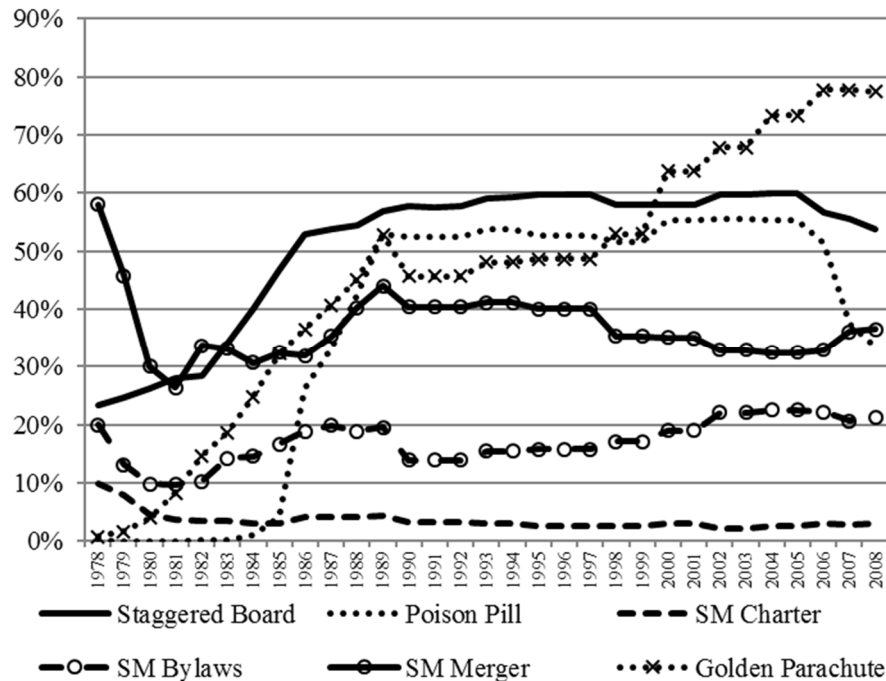
<sup>158</sup> A database of various types of information on companies throughout the world, provided by S&P Capital IQ, a division of McGraw Hill Financial, Inc.

<sup>159</sup> Earnings before interest, taxes, depreciation, and amortization.

<sup>160</sup> In the cross-sectional analysis, we also include a control for whether the firm is incorporated in Delaware. See *infra* Table 1. In the time-series analysis, we omit this control, as it is absorbed by the control for firm fixed effects, i.e., the inclusion of a dummy variable for each firm. See *infra* Table 2. Further, as standard in the literature, we also exclude firms with a dual class structure, as concentrated ownership tends to insulate managers and renders other protective features relatively unimportant. See Bebchuk et al., *supra* note 12, at 797. We also exclude financial firms, as the corporate governance of such firms differs due to heavy federal regulation. While we keep real estate investment trusts (REITs) (i.e., firms with a SIC Code of 6798) in our data, running our regressions on a subset excluding REITs yields similar results throughout. This excludes that REITs' special governance features may drive our results.



FIGURE 1: INCIDENCE OF THE E-INDEX PROVISIONS (1978–2008)



We observe that since the mid-1980s, staggered boards, poison pills, and golden parachutes have been the most commonly used among the E-Index provisions. In particular, staggered boards and poison pills are characterized by a similar pattern. They both exhibit a slow trend from 1978 to 1984, which rapidly accelerates starting in 1985 and lasts until the early 1990s. This seems not coincidental; the Delaware courts first made clear that the use of the pill was legitimate in the 1985 decision of *Moran v. Household International, Inc.*<sup>161</sup> With that legitimacy, the combined use of a staggered board and a poison pill acquired new force as a powerful antitakeover defense.<sup>162</sup> Both staggered boards and poison pills then

<sup>161</sup> 500 A.2d 1346, 1348–49, 1357 (Del. 1985). *Moran* held Delaware directors to the heightened form of judicial review established in *Unocal Corp. v. Mesa Petrol. Co.*, 493 A.2d 946 (Del. 1985), under which directors need to prove the reasonableness and good faith of their actions. *Moran*, 500 A.2d at 1350 (citing *Unocal*, 493 A.2d at 954–55). That constraint, however, was weakened in the 1989 decision of *Paramount Commc'ns, Inc. v. Time, Inc.*, 571 A.2d 1140 (Del. 1989), which substantially gave directors the right to maintain a poison pill indefinitely, essentially providing them with the ability to “just say no” to unsolicited bid acquisitions. *Id.* at 1154.

<sup>162</sup> See John C. Coates IV, *Takeover Defenses in the Shadow of the Pill: A Critique of the Scientific Evidence*, 79 TEX. L. REV. 271, 326 (2000).

stabilized in the 2000s, hovering at rates around 60% and 55% respectively. After 2006, they both begin to decline. For poison pills, however, this data needs to be interpreted with caution, as a board of directors can unilaterally adopt a pill at any time, so much so that it has become common in the literature to refer to the existence of “shadow” poison pills.<sup>163</sup> Hence, the fact that after 2006 fewer firms in our samples have a poison pill cannot be unequivocally interpreted as indicating a declining use of such provisions. At best, one can infer a decline in the use of “visible” poison pills.

Concerning golden parachutes, we first observe a steady increase during the 1978–1989 period—from virtually no firms in our sample having a golden parachute in 1978 to about 52% of the firms in our sample having such a provision in 1989. As the 1978–1989 period roughly coincides with the takeover era, the observed pattern would seem to lend support to BCF’s hypothesis that golden parachutes serve as an antitakeover defense.<sup>164</sup> From 1989 to 1997, the ratio of firms with a golden parachute slightly declines, while it begins to increase again starting in 1998 (although with a more discontinuous pattern than that observed during the 1978–1989 period), reaching 77% in 2008. The more recent rise in the use of golden parachutes is more difficult to reconcile with BCF’s antitakeover hypothesis. An alternative explanation for this rise, as suggested by one of us elsewhere, is increased competition among firms, which may justify the attribution of a parachute to attract talented managers to firms that are exposed to the risk of a change in control.<sup>165</sup> We observe, however, that this explanation does not per se detract from BCF’s claim that golden parachutes entrench incumbents, as the production of that effect could be independent of the motivation behind the adoption of parachutes.

Concerning supermajority requirements, *SM Charter* registers a very low incidence throughout our entire sample period, hovering at a rate between 3% and 9%.<sup>166</sup> *SM Bylaws* also remains relatively stable, in the 15%–20% range, throughout our entire 1978–2008 period (except for three years, from 1980 to 1982, where it falls below 10%). *SM Merger*, instead, exhibits a different pattern. Until the mid-1980s, *SM Merger* accounted for

---

<sup>163</sup> See *id.* at 288 (arguing that since the endorsement of the pill by Delaware courts, “all Delaware firms . . . have had a shadow pill in place, witting or not” (emphasis removed)).

<sup>164</sup> See *supra* note 151 and accompanying text.

<sup>165</sup> See Sepe & Whitehead, *supra* note 150, at 2060–61 (explaining that a talented manager would always prefer a firm that is less exposed to the risk of a change in control, absent the protection offered by golden parachutes, because the manager would be less exposed to the risk of being expropriated of her specific firm investment in such firms).

<sup>166</sup> BCF also document a low incidence of supermajority requirements for charter amendments in their sample. See Bebachuk et al., *supra* note 12, at 798.

the most widely used E-Index provision, whose incidence largely surpassed that of any other index provisions, including staggered boards. After 1978, however, the incidence of *SM Merger* begins to decline, stabilizing at a rate around 40% in the 1990s and further declining in the 2000s.

These patterns seem to suggest that staggered boards and poison pills have progressively come to dominate over supermajority requirements—and especially *SM Merger*—as defensive measures. Before the pill's development in the 1980s, the deterrent effect of a staggered board is regarded as having been limited<sup>167</sup> because its adoption could not prevent a bidder from acquiring a large block of shares; it could only delay a bidder's ability to exercise voting control.<sup>168</sup> This tactical weakness might have increased the defensive value of supermajority requirements, which would explain our results for the 1978–1985 period.<sup>169</sup> After the introduction of the pill, however, supermajority requirements lost much of their defensive value, as a pill on its own could now deter any bid that such requirements would deter.<sup>170</sup> Some scholars have thus argued that after the pill, the presence or absence of supermajority requirements has become irrelevant, with the result that most of these measures have disappeared.<sup>171</sup> Yet, while we find that the incidence of *SM Merger* declines after the introduction of the pill, these provisions seem far from disappearing. Moreover, this account is also unable to explain the stable pattern we observe in our sample for *SM Bylaws*.

#### D. Corporate Governance and Firm Value

Moving to the core of our empirical analysis, in this Section we estimate the impact of the E-Index and each of its constituent provisions on firm value, presenting results for both cross-sectional and time-series analyses. As discussed earlier, both analyses are directed at verifying whether the E-Index's theoretical proposition—that incumbents' protection from removal epitomizes bad governance—holds over a much longer

---

<sup>167</sup> See ROBERT CHARLES CLARK, CORPORATE LAW § 13.6, at 576 (1986); Ronald J. Gilson, *The Case Against Shark Repellent Amendments: Structural Limitations on the Enabling Concept*, 34 STAN. L. REV. 775, 793 (1982).

<sup>168</sup> See Lucian Arye Bebchuk et al., *The Powerful Antitakeover Force of Staggered Boards: Theory, Evidence, and Policy*, 54 STAN. L. REV. 887, 903–04 (2002).

<sup>169</sup> In particular, Coates suggests that before the introduction of the pill, supermajority requirements for mergers might have provided a defense against coercive two-tiered tender offers—involving a higher initial offer for sufficient shares to acquire control, followed by a lower offer for the remaining outstanding shares. See Coates, *supra* note 162, at 321.

<sup>170</sup> See *id.* at 320–23.

<sup>171</sup> See *id.* at 324–25.

sample period. However, the use of a time-series analysis is better suited to mitigate possible endogeneity concerns as it incorporates firm fixed effects.<sup>172</sup>

*1. Cross-Sectional Results.*—Table 1 presents our results for the cross-section of firms, including control for both industry and year fixed effects. Column (1) presents results for the association between the E-Index and firm value ( $Q$ ). Columns (2) through (7) present results for the association between the single index provisions and firm value to explore the possibility that not all of the index provisions contribute—or contribute analogously—to the aggregate index’s relation to firm value.<sup>173</sup> For added robustness, in Column (8) we verify the impact on  $Q$  of each E-Index provision while controlling for the other index provisions. We also note that in this Table (and Table 2 that follows), we show the absolute value of the t-statistics of all coefficients<sup>174</sup> based on both robust standard errors that are not clustered, as in BCF, and clustered, as has become standard in more recent empirical studies. Indeed, the use of clustered standard errors is important because it addresses within-firm dependence, or correlations between observations of the same firm across years.<sup>175</sup>

---

<sup>172</sup> See *supra* notes 129–30 and accompanying text.

<sup>173</sup> See Bebchuk et al., *supra* note 12, at 805–06.

<sup>174</sup> T-statistics conventionally indicate significance at the 1%, 5%, and 10% levels. This means that the null hypothesis (the hypothesis that an independent variable has no impact on a dependent variable) cannot be rejected with a probability of 1%, 5%, and 10%, respectively. In statistics, when the significance level is above 10%, it is standard to consider the result to be statistically insignificant or uninformative.

<sup>175</sup> See Mitchell A. Petersen, *Estimating Standard Errors in Finance Panel Data Sets: Comparing Approaches*, 22 REV. FIN. STUD. 435, 443 (2009).

TABLE 1: FIRM VALUE AND E-INDEX PROVISIONS: CROSS-SECTIONAL ANALYSIS<sup>†</sup>

<i>Independent Variables</i>	<i>Dependent Variable: Q</i>							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>E-Index</i>	-0.0453***							
	(-11.45)							
	(-5.57)							
<i>Staggered Board</i>		-0.0405***						-0.0234**
		(-4.47)						(-2.06)
		(-2.14)						(-1.03)
<i>Poison Pill</i>			-0.0964***					-0.0722***
			(-9.54)					(-6.20)
			(-4.72)					(-3.25)
<i>SM Charter</i>				-0.00604				0.0216
				(-0.23)				(0.77)
				(-0.11)				(0.39)
<i>SM Bylaws</i>					-0.0391***			-0.0256*
					(-3.00)			(-1.84)
					(-1.57)			(-0.99)
<i>SM Merger</i>						-0.0207**		-0.0139
						(-1.99)		(-1.27)
						(-0.95)		(-0.61)
<i>Parachutes</i>							-0.113***	-0.0918***
							(-10.87)	(-8.10)
							(-5.46)	(-4.24)
<b>Fixed Effects:</b>					<b>Year + Industry</b>			
N	21,414	28,281	27,818	21,455	21,555	21,840	24,348	21,414
R-sq	0.512	0.496	0.501	0.509	0.508	0.510	0.512	0.513

<sup>†</sup> In this Table, we present the cross-sectional association between firm value and the level of the E-Index or its six constituent provisions, using pooled panel regressions of  $Q$  on the E-Index or its provisions with year and industry fixed effects (4-digit Standard Industrial Classification (SIC) Code) plus a set of standard controls: *Assets*, *Delaware Incorporation*, *ROA*, *CAPX*, *R&D*, and *Industry M&A Volume*. All columns use the full time period 1978–2008, except Columns (2) and (3), which use data for 1978–2011. Coefficients on standard controls are not shown to save space. Variables are defined in Appendix Table A. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by \*\*\*, \*\*, and \*, respectively. We provide two t-statistics below each regression coefficient, namely first the t-statistic based on robust standard errors that are not clustered and, second, the t-statistics based on robust standard errors that are clustered by firm. The statistical significance indicated by \*\*\*, \*\*, and \*, refers to the first coefficient in parenthesis (i.e., robust standard errors that are not clustered).

Consistent with BCF, in Column (1) we document that the cross-sectional coefficient of *E-Index* is negative and statistically significant—suggesting that firms with more entrenchment experience a reduction in value as compared to firms with less entrenchment.<sup>176</sup>

As shown in Columns (2) through (7), the cross-sectional coefficients of the single index provisions are likewise negative. The coefficients are also statistically significant for all provisions except *SM Charter*, which could be explained by the low incidence of such provisions throughout our sample.<sup>177</sup> However, when we use robust standard errors clustered at firm level, both the coefficients of *SM Merger* and *SM Bylaws* become insignificant.<sup>178</sup> The statistical significance of the cross-sectional coefficients of the single provisions is reduced even more when we control for the other E-Index provisions shown in Column (8). In particular, both the coefficients of *SM Merger* and *SM Charter* become insignificant. With clustering, the effect is even more evident, with all the coefficients becoming insignificant,<sup>179</sup> but for those of *Poison Pill* and *Parachutes*. This seems to indicate that these two provisions largely drive the negative cross-sectional association of the E-Index with firm value—consistent with our prediction that perhaps not all the provisions included in the E-Index matter equally for aggravating entrenchment. As we shall see next, the use of a time-series analysis delivers results that go in the same direction, challenging BCF's view of incumbent protection from removal as being uniformly detrimental to firm value.

---

<sup>176</sup> Economically, firms with an *E-Index* that is a standard deviation higher than the mean tend to have a level of *Q* that is 3.7% lower relative to firms with an *E-Index* and *Q* that are at the mean. We calculate this economic significance as follows. First, we multiply the *E-Index* coefficient of -0.0453 times the standard deviation of *E-Index* of 1.37, and then divide this by 1.69, which is the average *Q* in the sample. We also observe that the coefficient's estimate on *E-Index* remains statistically significant based on using robust standard errors clustered at firm level, although the t-statistic decreases from 11.45 to 5.57.

<sup>177</sup> See *supra* text accompanying note 166.

<sup>178</sup> The t-statistics based on robust standard errors that are clustered by firm of -0.95 for *SM Merger* and -1.57 for *SM Bylaws* are less significant than 10% confidence level and, in turn, are considered statistically insignificant. See *supra* note 174.

<sup>179</sup> Given the effect of clustering standard errors by firm on our cross-sectional results, a note on its use seems worthwhile. Using standard errors that are clustered by firm accounts for the tendency of governance provisions to be quite stable across time, whereas using standard errors that are not clustered amounts to assuming that observations for a given firm are independent across time. This independence assumption, however, has come to be recognized as inappropriate today, as it ignores a strong dependency of governance provisions across time for individual firms. See Petersen, *supra* note 175, at 435. This means that using more conservative robust standard errors that are clustered by firm is more reflective of the actual confidence we can have in reported estimates. Accordingly, because all cross-sectional coefficients—except *Poison Pill* and *Parachutes*—become insignificant upon clustering standard errors by firm (and controlling for the use of other E-Index provisions), it seems to deliver a different picture of incumbent protection from removal than that described by BCF.

2. *Time-Series Results.*—Table 2 presents results for regressions that replace industry fixed effects with firm fixed effects, examining the association between firm value and changes that firms made in the E-Index provisions during the 1978–2008 period. Column (1) presents results for the association between *E-Index* and firm value, Columns (2) through (7) present results for the association between each of the E-Index provisions and firm value, and Column (8) simultaneously considers all six E-Index provisions.

NORTHWESTERN UNIVERSITY LAW REVIEW

TABLE 2: FIRM VALUE AND E-INDEX PROVISIONS: TIME-SERIES ANALYSIS<sup>†</sup>

		<i>Dependent Variable: Q</i>							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Independent Variables</i>									
<i>E-Index</i>	-0.0137**								
	(-2.13)								
	(-1.07)								
<i>Staggered Board</i>	0.0706***								0.120***
	(5.06)								(6.14)
	(2.30)								(2.96)
<i>Poison Pill</i>				-0.0340***					-0.0377***
				(-3.00)					(-2.80)
				(-1.58)					(-1.58)
<i>SM Charter</i>					0.0748**				0.0743**
					(2.21)				(2.04)
					(1.21)				(1.15)
<i>SM Bylaws</i>						-0.0382*			-0.0630***
						(-1.88)			(-2.99)
						(-1.04)			(-1.66)
<i>SM Merger</i>							0.0269*		0.0117
							(1.69)		(0.70)
							(0.82)		(0.35)
<i>Parachutes</i>								-0.0497***	-0.0608***
								(-4.23)	(-4.62)
								(-2.37)	(-2.67)
<b>Fixed Effects:</b>		<b>Year + Firm</b>							
N	21,414	28,281	27,818	21,455	21,555	21,840	24,348	21,414	
R-sq	0.743	0.734	0.735	0.743	0.743	0.743	0.740	0.744	

<sup>†</sup> In this Table, we present the time-series association between firm value and the level of the E-Index and its six constituent provisions, using pooled panel regressions of *Q* on the E-Index or its provision(s) with year and firm fixed effects plus a set of standard controls: *Assets*, *ROA*, *CAPX*, *R&D*, and *Industry M&A Volume*. All columns use the full time period of 1978–2008, except Columns (2) and (3), which use data for 1978–2011. Coefficients on standard controls are not shown to save space. Variables are defined in Appendix Table A. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by \*\*\*, \*\*, and \*, respectively. We provide two t-statistics below each regression coefficient, namely first the t-statistic based on robust standard errors that are not clustered and, second, the t-statistics based on robust standard errors that are clustered by firm. The statistical significance indicated by \*\*\*, \*\*, and \*, refers to the first coefficient in parenthesis (i.e., robust standard errors that are not clustered).



As shown by Table 2, in the firm fixed effect regressions, the coefficient of *E-Index* remains negative, but becomes statistically insignificant based on using robust standard errors clustered at firm level.<sup>180</sup> This suggests that once correlations between observations of the same firm across years are taken into account,<sup>181</sup> there is no statistically significant evidence that firm value increases as the level of the E-Index decreases (nor, correspondingly, that firm value decreases as the level of the E-Index increases).

Columns (2) through (7) document our most striking results. Consistent with the Cremers–Sepe study documenting a positive role of staggered boards, Column (2) shows a statistically significant positive time-series association between *Staggered Board* and *Q*.<sup>182</sup> The economic magnitude of this positive association is also considerable, suggesting that the adoption of a staggered board is associated with an increase in firm value of 4.3%.<sup>183</sup> The coefficient of *Staggered Board* remains strongly statistically significant, even using robust standard errors clustered at firm level. Similarly, Columns (4) and (6) show a positive coefficient of *SM Charter* and *SM Merger*, although both coefficients become statistically insignificant when we use clustering by firm.<sup>184</sup>

Conversely, the coefficients of *Poison Pill*, *SM Bylaws*, and *Parachutes* remain negative. The economic magnitude of these negative associations is also considerable, especially for *Poison Pill* and *Parachutes*. Indeed, the adoption of a poison pill is associated with a decrease in firm value of 2.1%,<sup>185</sup> which remains marginally statistically significant when we use robust standard errors clustered at the firm level.<sup>186</sup> The adoption of a golden parachute is associated with a similar decrease in firm value of

---

<sup>180</sup> The t-statistics based on robust standard errors that are clustered by firm of -1.07 for *E-Index* is less significant than 10% confidence level and thus considered statistically insignificant. See *supra* note 174.

<sup>181</sup> See *supra* note 179.

<sup>182</sup> See Cremers & Sepe, *supra* note 18, at 101 tbl.1.

<sup>183</sup> The economic significance of the time-series impact of *Staggered Board* on *Q* is obtained by dividing the regression coefficient of 0.0706 by the sample average *Q* during 1978–2011 of 1.65.

<sup>184</sup> The t-statistics based on robust standard errors that are clustered by firm of 1.21 for *SM Charter* and of 0.82 for *SM Merger* are less significant than 10% confidence level and then considered statistically insignificant. See *supra* note 174.

<sup>185</sup> The economic significance of the time-series impact of *Poison Pill* on *Q* is obtained by dividing the regression coefficient of -0.034 by the sample average *Q* during 1978–2011 of 1.65.

<sup>186</sup> The t-statistics based on robust standard errors that are clustered by firm of -1.58 for *Poison Pill* are close but marginally lower than being significant at the 10% confidence level.

2.9%,<sup>187</sup> which remains statistically significant when we used robust standard errors clustered at the firm level.

Importantly, the results for both the E-index provisions exhibiting a positive impact and a negative impact on firm value are confirmed in Column (8), where we simultaneously consider the time-series association with firm value for all six E-Index provisions—with most coefficients becoming considerably stronger. The exception is *SM Merger*, whose coefficient decreases (from 0.0269 in Column (2) to 0.0117 in Column (8)). This suggests that the adoption of supermajority mergers serves a function to some extent independent of the adoption of a staggered board, in contrast to what is argued by some corporate law scholars.<sup>188</sup>

Empirically, the conflicting signs of the cross-sectional versus the time-series results for *Staggered Boards*, *SM Charter*, and *SM Merger* seem to suggest that the cross-sectional results for these provisions may be due to reverse causality. In other words, a relatively low firm value would induce firms to adopt such provisions, rather than the other way around.<sup>189</sup> Most importantly, from an institutional perspective, our time-series evidence challenges BCF's postulate that any form of protection from removal is a logical antecedent to managerial moral hazard, documenting that half of the E-Index provisions are associated with an increase, rather than a decrease, in firm value. Thus, as we explain in the following Section, the problem seems not to lie with incumbent protection from removal per se, but rather in the form this protection takes.

3. “Dictatorial” and “Republican” Protection Arrangements.—Shareholder advocates, starting with Gompers, Ishii, and Metrick, have consistently portrayed the shareholder-centric model as an efficient form of direct corporate democracy, while portraying the board-centric model as an inefficient corporate dictatorship, where incumbents can arbitrarily secure their protection from removal at the expense of shareholders.<sup>190</sup> This stylized representation of incumbent protection, however, is ill suited to capture all the governance arrangements

---

<sup>187</sup> The economic significance of the time-series impact of *Parachutes* on  $Q$  is obtained by dividing the regression coefficient of -0.0497 by the sample average  $Q$  during 1978–2008 of 1.69.

<sup>188</sup> See *supra* text accompanying note 171.

<sup>189</sup> The evidence documented by the Cremers–Sepe study that reverse causality is the most likely explanation for the conflict between the cross-sectional and time-series analysis of the value impact of staggered boards adds to the hypothesis that reverse causality might likewise explain our results for *Staggered Boards*, *SM Charter*, and *SM Merger*. See Cremers & Sepe, *supra* note 18, 103–04 (citing Cremers et al., *supra* note 117).

<sup>190</sup> See *supra* text accompanying notes 76–77.

included in the E-Index. Indeed, it fails to consider that some of these arrangements are premised on prior shareholder agreement, consistent with republican organizational principles, under which any form of power is bilateral and only vested in the elected representatives with the prior agreement of voters.

This more nuanced representation of incumbent protection from removal is well suited to capture the difference between E-Index provisions with a negative and positive time-series association with firm value. Poison pills, golden parachutes, and supermajority bylaws all share the features of unilateral—and thus “dictatorial”—governance provisions. The board of directors can unilaterally adopt poison pills and golden parachutes, even against shareholder opposition.<sup>191</sup> Similarly, in most companies, the initial charter tends to grant directors a unilateral right to amend the bylaws.<sup>192</sup> Although this practice cannot divest shareholders of their own unilateral right to amend the bylaws (which, under Delaware law, is the default),<sup>193</sup> the power attributed to directors becomes virtually exclusive when, in comparison, the exercise of the concurrent shareholders’ right is subject to a supermajority requirement.<sup>194</sup> Indeed, under these combined governance arrangements, if the directors decide to amend the bylaws—for example, to add a provision that delays a bidder’s ability to replace a majority of the board<sup>195</sup>—it becomes much more difficult for the shareholders to reverse that decision. This is especially true considering that the size of supermajority requirements is often very high, up to 80%.<sup>196</sup>

Conversely, staggered boards, supermajority charter, and supermajority mergers embody bilateral—and thus “republican”—governance provisions as they are all premised on shareholder consent. In virtually every U.S. state, shareholder approval is required to adopt a staggered board.<sup>197</sup> Further, while the board retains exclusive power to

---

<sup>191</sup> Bebchuk et al., *supra* note 12, at 809; *see also* Coates, *supra* note 162, at 287 n.62 (“Technically, pill adoption is a dividend of rights to purchase stock. Dividends . . . are within the authority of the board and do not require shareholder approval.”).

<sup>192</sup> *See* DEL. CODE ANN. tit. 8, § 109(a) (2015).

<sup>193</sup> *Id.*

<sup>194</sup> *See id.* § 242(b)(4).

<sup>195</sup> *See generally* John C. Coates IV, *Explaining Variation in Takeover Defenses: Blame the Lawyers*, 89 CAL. L. REV. 1301, 1346 (2001) (discussing limitations to shareholder powers).

<sup>196</sup> Scott Hirst, *Frozen Charters* 8 (2014) (unpublished manuscript), [http://www.law.harvard.edu/programs/olin\\_center/Prizes/2014-1.pdf](http://www.law.harvard.edu/programs/olin_center/Prizes/2014-1.pdf) [<http://perma.cc/W5BR-XDH2>].

<sup>197</sup> *See, e.g.*, DEL. CODE ANN. tit. 8, § 141(d). The notable exception is Maryland, where the board has the unilateral power to adopt a staggered board. *See* MD. CODE ANN. CORPS. & ASS’NS § 3-803 (LexisNexis 2015).

initiate a charter amendment, shareholder approval is required.<sup>198</sup> Accordingly, rules for charter amendments are described as being characterized by a bilateral veto, i.e., neither the shareholders nor the board can amend the charter alone.<sup>199</sup> The same logic of granting shareholders a veto right over fundamental corporate transactions explains the requirement of shareholder approval for mergers.<sup>200</sup>

Distinguishing between unilateral and bilateral protection arrangements explains our time-series results.<sup>201</sup> On the one hand, unilateral protection arrangements that can be adopted without any dialectical confrontation with the shareholders seem more likely to be motivated by managerial moral hazard—consistent with the negative association with firm value that we document. On the other hand, bilateral protection arrangements that require the prior agreement of shareholders seem to serve a constructive governance role, as we document that their adoption has a strongly positive association with firm value.

We argue that this positive role is mitigating the limited commitment problem. Such a problem, as discussed earlier, is the result of the inability of public shareholders vested with strong exit rights and faced with discontinuous market prices to credibly commit to longer-term projects and stable stakeholder relationships, at the expense of firm profitability and, ultimately, their own interests.<sup>202</sup> Staggered boards help mitigate the limited commitment problem by serving as a unique commitment device that makes it more difficult for shareholders to renege on prior long-term engagements and interfere with directorial and management decisions in the short term.<sup>203</sup>

---

<sup>198</sup> See *supra* note 143.

<sup>199</sup> See, e.g., Marcel Kahan & Edward B. Rock, *Corporate Constitutionalism: Antitakeover Charter Provisions as Precommitment*, 152 U. PA. L. REV. 473, 517 n.175 (2003).

<sup>200</sup> See *id.* at 517.

<sup>201</sup> We are not the first to distinguish between unilateral and bilateral protection arrangements, although we are the first to provide empirical evidence supporting the conclusion that bilateral protection arrangements are more likely to be welfare enhancing than unilateral ones. See, e.g., Ronald J. Gilson, *Seeking Competitive Bids Versus Pure Passivity in Tender Offer Defense*, 35 STAN. L. REV. 51, 51 (1982) (first suggesting that defensive tactics that require shareholder approval, such as staggered boards, may represent an efficient commitment from shareholders to managers and boards not to dismiss these agents prematurely, but tactics that do not require board approval may inefficiently reduce shareholder value); Marcel Kahan & Edward B. Rock, *How I Learned to Stop Worrying and Love the Pill: Adaptive Responses to Takeover Law*, 69 U. CHI. L. REV. 871, 901–08 (2002) (drawing a distinction between the bilateral and unilateral devices that market participants used to respond to the takeover shock of the 1980s, and suggesting that bilateral devices hold a privileged position within Delaware law).

<sup>202</sup> See *supra* text accompanying notes 118–19.

<sup>203</sup> See *supra* text accompanying note 120.

Along the same lines, supermajority charter and supermajority merger provisions add to a firm's commitment to the longer term by introducing a bias in favor of institutional stability.<sup>204</sup> Indeed, requiring that any changes to basic institutional rules (such as those included in a firm's charter or regulating the approval of mergers) receive both board support and overwhelming shareholder consensus helps promote the organizational conservatism that is necessary to strengthen a firm's commitment towards longer-term stakeholder relationship and value creation.<sup>205</sup>

### III. THE VALUE OF COMMITMENT

Our analysis of the E-Index, which expands the original analysis carried out by BCF to cover over thirty years of corporate governance, challenges the proposition that any form of incumbent protection from removal is detrimental to shareholder value. Contrary to this proposition, our time-series results suggest that only unilateral protection arrangements, which the board can adopt without the need for shareholder approval, result in value-decreasing entrenchment, or bad governance.<sup>206</sup> Instead, bilateral protection arrangements, which require the mutual agreement of the board and the shareholders, promote beneficial commitment to longer-term value creation and stronger stakeholder relationships, or good governance.<sup>207</sup>

In this Part, we put our novel account of what matters in corporate governance to further empirical testing. First, we decompose the E-Index into two separate sub-indices: a "commitment index" (C-Index), only including the E-Index's three bilateral provisions, and an "incumbent index" (I-Index), only including the E-Index's three unilateral provisions. If our account of corporate governance is correct, we expect to find that increased scores on the C-Index (i.e., more commitment) are associated with increases in firm value. Conversely, increased scores on the I-Index (i.e., more entrenchment) should be associated with decreases in firm value. Second, we verify whether the use of bilateral protection arrangements is more valuable in firms where the limited commitment problem appears to be more severe, as predicted by our theory. As

---

<sup>204</sup> This is a classic argument in political science for the adoption of supermajority requirements. See MELISSA SCHWARTZBERG, COUNTING THE MANY: THE ORIGINS AND LIMITS OF SUPERMAJORITY RULE 7–9, 125–33 (2014) (stating that modern supermajority rules are primarily regarded as a remedy against the "instability" of majority rules).

<sup>205</sup> Cf. *id.* at 127 ("Stable institutions afford us the security of expectations . . . . By protecting the institutions that 'constitute' our political arrangements, we can enable ordinary political life . . . without constantly renegotiating the 'rules of the game.'").

<sup>206</sup> See *supra* text accompanying notes 185–87.

<sup>207</sup> See *supra* text accompanying notes 182–84.

discussed below, for both inquiries, we find results that strongly support our novel account of incumbent protection from removal.

*A. The Commitment Index and the Incumbent Index*

In this Section, we test the value associations of two sub-indices of the E-Index: the C-Index, which is meant to capture the level of shareholder commitment to the long term, and the I-Index, which is meant to capture a firm’s level of entrenchment.

Table 3 presents our results. Columns (1) through (3) present results for our full period, 1978–2008. After that, we perform subsample analyses to establish the robustness of our results across different sample periods. Specifically, Columns (4) through (6) present results for the first part of our sample, 1978–1993, while Columns (7) through (9) present results for the second part of our sample, 1994–2008. For all columns of this table, we include year and fixed effects and provide the t-statistics based on robust standard errors that are clustered at firm level.

TABLE 3: FIRM VALUE, THE C-INDEX, AND THE I-INDEX†

	<i>Dependent Variable: Q</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Time Period: 1978–2008			Time Period: 1978–1993			Time Period: 1994–2008		
<i>Independent Variables</i>									
<i>C-Index</i>	0.0508**		0.0610**	0.0164		0.0141	0.0952**		0.101**
	(2.04)		(2.45)	(0.75)		(0.63)	(2.18)		(2.34)
<i>I-Index</i>		-0.0432***		-0.0496***		0.0108	0.0109		-0.0328
		(-2.81)		(-3.19)		(0.59)	(0.57)		(-1.58)
									(-1.80)
<b>Fixed Effects:</b>									
	Year + Firm								
N	21,438	21,555	21,414	6,663	6,780	6,639	14,775	14,775	14,775
R-sq	0.743	0.743	0.743	0.828	0.825	0.828	0.765	0.765	0.765

† In this Table, we present the time-series association between firm value and the level of the C-Index and the I-Index, using pooled panel regressions of *Q* on each index with year and firm fixed effects plus a set of standard controls: *Assets*, *ROA*, *CAPX*, *R&D*, and *Industry M&A Volume*. The first three columns use the full time period 1978–2008, Columns (4)–(6) use data for 1978–1993, and Columns (7)–(9) for 1994–2008. Coefficients on standard controls are not shown to save space. Variables are defined in Appendix Table A. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by \*\*\*, \*\*, and \*, respectively, based on robust standard errors that are clustered by firm.

Consistent with our commitment theory of bilateral protection arrangements, in Column (1), which shows results for our full sample, we document a statistically significant positive time-series association between *C-Index* and  $Q$ . The economic magnitude of this positive association is also considerable, suggesting that a unit increase in *C-Index* is associated with an increase in firm value of 3.0%.<sup>208</sup> Correspondingly, in Column (2), which shows the time-series relation between firm value and *I-Index* for our full sample, we document a statistically significant negative time-series association between *I-Index* and  $Q$ . The economic magnitude of this negative association is also considerable, suggesting that a unit increase in *I-Index* is associated with a decrease in firm value of 2.6%.<sup>209</sup> These results are confirmed by Column (3), where we simultaneously consider both indices, finding that *C-Index* continues to have a statistically significant positive time-series association with  $Q$ , while *I-Index* continues to have a statistically significant negative time-series association with  $Q$ .<sup>210</sup>

Results for the subperiod 1978–1993, shown in Columns (4) through (6), are considerably different. Indeed, all the *C-Index* and the *I-Index* coefficients—whether used singularly or simultaneously—become economically smaller and statistically insignificant. Conversely, results for the subperiod 1994–2008 are even stronger than the results we obtain for the full 1978–2008 period. As shown in Column (7), the coefficient of *C-Index* is positive and statistically significant, and almost twice the coefficient of *C-Index* for our full time period. Economically, this means that a unit increase in *C-Index* is associated with an increase in firm value of 5.2% during the 1994–2008 time period.<sup>211</sup> Concerning the coefficient of

---

<sup>208</sup> The economic significance of the impact of *C-Index* on  $Q$  is obtained by dividing the regression coefficient of 0.0508 by the sample average  $Q$  during 1978–2008 of 1.69.

<sup>209</sup> The economic significance of the impact of *I-Index* on  $Q$  is obtained by dividing the regression coefficient of -0.0432 by the sample average  $Q$  during 1978–2008 of 1.69.

<sup>210</sup> As we show in Appendix Table C, the results in Table 3 are not all driven by time variation in *Staggered Board*, *Poison Pill*, and *Parachutes*, even if those three provisions have the most time variation (as shown in Figure 1) and have the strongest time-series association with firm value (as documented in Table 2). Columns (1) and (3) of Appendix Table C show that adoption of *SM Charter* is associated with an increase in  $Q$ , but primarily for firms without a staggered board. Columns (2) and (3) show a similar result for *SM Merger*, albeit with lower economic significance and without statistical significance respectively. In Columns (4) and (6), we find a strong negative association between adopting *SM Bylaw* and  $Q$ , but only for firms that also have adopted a poison pill, suggesting a strong complementarity. Finally, as shown in Columns (5) and (6) of Appendix Table C, golden parachutes and poison pills appear to be substitutes, as we find that the adoption of *Parachutes* is strongly negatively related to  $Q$ , but only for firms that have not adopted a poison pill.

<sup>211</sup> The economic significance of the impact of *C-Index* on  $Q$  is obtained by dividing the regression coefficient of 0.0952 by the sample average  $Q$  during 1994–2008 of 1.82.

*I-Index*, as shown in Column (8), it remains negative, although it is only marginally significant. This could potentially be explained by more limited within-firm variation in the *I-Index* over this time period. Finally, as shown in Column (9), where we verify the contemporaneous impact of the two indices during 1994–2008, we similarly find that the coefficient of *C-Index* is positive and statistically significant and that the coefficient of *I-Index* is negative and statistically significant.

Overall, the results of Table 3 suggest that the divide between good and bad governance practices—as embodied by bilateral protection arrangements and unilateral protection arrangements, respectively—has only emerged in the past two decades. Conversely, before the mid-1990s, firms’ governance quality seems best understood as context-specific, where heterogeneity in governance arrangements may have reflected firms’ idiosyncratic features. Indeed, the insignificance of the results using the 1978–1993 period is not just of a statistical nature, but also economical, as shown by the small (in absolute value) coefficients. This raises the question of what caused corporate governance to transition from a system in which best practices exhibited highly customized features to one in which bilateral protection arrangements seem to represent an appropriate set of best practices for most firms—and, conversely, unilateral protection arrangements seem to represent universally bad practices. We turn to that question next.

### B. *The Dynamics of Incumbent Protection*

The erosion of the traditional board-centric model due to the rise of shareholder power—which started in the mid-1990s with the emergence of institutional investor ownership<sup>212</sup>—seems to provide a plausible answer to the question of what caused bilateral protection arrangements to progressively gain systematic value as best practices. With its strong focus on board authority and the central discretionary function of management over capital (i.e., shareholders), the traditional, managerialist model of U.S. corporations was well suited to constrain the distortions arising from the limited commitment problem.<sup>213</sup> Indeed, under these organizational principles, directors were naturally empowered to resist short-term shareholder and market pressure.<sup>214</sup> This, in turn, could explain why the

---

<sup>212</sup> See *supra* note 108.

<sup>213</sup> See *supra* notes 39–46 and accompanying text.

<sup>214</sup> As observed by Delaware Justice Jack Jacobs, in the management corporation, directors could force investors to “patiently ‘sit still’” for the time required “to innovate new products, to bring those products to market, and to plan for the long term.” Jacobs, *supra* note 60, at 1646–49.



benefits arising from the adoption of bilateral protection arrangements do not exhibit a systematic nature under that model. In the shareholder empowerment era, however, U.S. corporate boards have grown increasingly disempowered vis-à-vis shareholders.<sup>215</sup> As a result, the limited commitment problem emerges as much more severe today. This could explain why the adoption of governance arrangements fostering commitment to the long term has become systematically valuable in more recent times. In other words, bilateral protection arrangements would have emerged as a means to re-empower boards—with the agreement and in the longer-term interest of shareholders—to constrain the distortions arising from the limited commitment problem.

As to unilateral protection arrangements, such as poison pills and golden parachutes, one possible explanation for their emergence after 1993 as seemingly universally bad practices relates to changes in takeover activity. During the takeover era, it was more likely that the need to address an actual takeover threat motivated the adoption of a poison pill. To the extent that such a threat could jeopardize a firm's commitment to long-term value creation, a poison pill could provide incumbents with an exceptional remedy—to be added on top of already empowered boards—to force investors to be “patient.”<sup>216</sup> With the end of the hostile takeover era in the mid-1990s, however, similar threats have become much less frequent, making it more likely that the adoption of a poison pill may be motivated by managerial moral hazard.

It is important to emphasize, however, that so far, for simplicity, we have assumed that a firm is to adopt only good or bad governance arrangements. In actuality, however, it will often be the case that a firm has some good arrangements and some bad ones. For example, a firm might have adopted—as often happens in practice—both a staggered board and a poison pill. How should one interpret this organizational variant under our account of corporate governance? Our analysis of the results obtained for the I-Index suggests that evaluation of this variant should turn on whether any actual takeover threat justifies the adoption of a pill to strengthen the

---

<sup>215</sup> See *supra* text accompanying note 62.

<sup>216</sup> In the Delaware Court of Chancery's ruling of the *Paramount Communications Inc. v. Time Inc.* takeover case (later affirmed by the Delaware Supreme Court), Chancellor Allen provided a similar motivation. See Nos. 10866, 10670, 10935, 1989 WL 79880, at \*30 (Del. Ch. July 14, 1989), *aff'd*, 571 A.2d 1140 (Del. 1989). Framing the case as hinging on whether Time's directors were allowed to accept less current value today in the hope of greater value in the future, Chancellor Allen ruled in favor of the board's use of the pill as a manifestation of the board's willingness to manage the corporation for the long-term profit. *Id.* Further, earlier poison pills also contained bilateral features that disappeared in later pills, as shareholders were typically permitted to remove the pill under the former's standard provisions. See Kahan & Rock, *supra* note 201, at 910.

long-term commitment device provided by a staggered board. A recent case on point is the use by takeover target Airgas of a poison pill to defeat Air Products' attempt to win over the company.<sup>217</sup> After a battle that drew massive investor attention, Airgas was able to successfully fend off Air Products' offer following a ruling by the Delaware Chancery Court that upheld the company's use of the pill as consistent with the objective of long-term value creation.<sup>218</sup> Tellingly, in the months after the ruling, Airgas's stock price rose steadily, validating the view of the Airgas staggered board that the use of the pill was necessary to defend the company's "commit[ment] to creating shareholder value through the disciplined execution of core business strategies."<sup>219</sup>

Finally, concerning the use of golden parachutes, the 2010 introduction by the Dodd–Frank Act of "Say-on-Golden-Parachute" rules has weakened the unilateral nature of these provisions. Pursuant to Section 951 of the Act, all U.S. public companies are now required to conduct a nonbinding shareholder advisory vote on parachute payouts in connection with mergers and other significant corporate transactions that are presented to the shareholders for approval.<sup>220</sup> Our account of corporate governance suggests that by introducing an element of dialectical confrontation with the shareholders, this legal change could potentially serve to mitigate the likelihood that golden parachutes be primarily motivated by managerial moral hazard. Consistent with this hypothesis, one of us has argued elsewhere—with the support of empirical evidence for the 2007–2012 period—that golden parachutes have grown into a governance arrangement designed to ensure managers will benefit from the long-term value of their specific investments, even if their company is later acquired.<sup>221</sup> As encouraging managers to specifically invest in the firm is

---

<sup>217</sup> See Steven M. Davidoff, *A Case Study: Air Products v. Airgas and the Value of Strategic Judicial Decision-Making*, 2012 COLUM. BUS. L. REV. 502, 507–33 (providing an exhaustive account of the Airgas–Air Products battle).

<sup>218</sup> The Delaware Chancery Court initially upheld a shareholder-initiated bylaw amendment that accelerated the date of Airgas's next annual shareholder meeting—substantially shortening the two-annual-meeting delay forced on Air Products by Airgas's staggered board. *Airgas, Inc. v. Air Prods. & Chems., Inc.*, No. 5817-CC, 2010 WL 3960599, at \*1 (Del. Ch. Oct. 8, 2010). About a month later, however, the Delaware Supreme Court reversed the Chancery decision and held that measures designed to shorten the terms of service of staggered directors were impermissible. *Airgas, Inc. v. Air Prods. & Chems., Inc.*, 8 A.3d 1182, 1185 (Del. 2010).

<sup>219</sup> *The History of Airgas: It's All About Value*, AIRGAS, <http://airgas.com/company/history/airgas-history-commitment-to-excellence-all-about-value.html> [<http://perma.cc/VE3Z-PXF3>].

<sup>220</sup> Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, sec. 951, § 14A(a)(1), 124 Stat. 1376, 1899 (2010) (codified as amended 15 U.S.C. § 78n-1 (2012)).

<sup>221</sup> See Sepe & Whitehead, *supra* note 150, at 2048–49 (“[C]hutes serve as a kind of insurance against a prospective change in the firm's investment strategy, and a chute's payments—similar to

essential to creating and sustaining firm value over time, the benefits derived from such assurance would accrue to managers and shareholders alike, which could explain why the use of golden parachutes kept increasing after 2008.<sup>222</sup>

### C. Managerial and Stakeholder Engagement

Our results for the C-Index and the I-Index largely downplay the relevance of incumbent protection from removal that is detrimental to shareholder interests. That protection appears to be beneficial to shareholder and societal interests, as long as it empowers boards to resist short-term market pressure with the prior agreement of shareholders (or even without shareholder agreement if this is justified by exceptional circumstances).

As a further test to our novel account of incumbent protection from removal, in this Section we verify the channels through which bilateral protection arrangements (i.e., the republican board-centric model) would add corporate value: the pursuit of long-term projects and firm-specific stakeholder investments. Empirically, if our theoretical account is correct, we would expect to find that the adoption of bilateral protection arrangements is more strongly associated with increases in firm value in firms whose corporate production depends on long-term innovation and the participation of stakeholders, including creditors.

*1. Innovation and Stakeholder Participation.*—Our theoretical account predicts that firms that are more involved in long-term innovation and where stronger firm-specific investments by nonfinancial stakeholders (such as customers and employees) are likely to be more important should be affected by a more severe limited commitment problem. Indeed, information about investments in innovation tends to be “soft,” that is, mostly limited to firm insiders and hence less accurately captured by

---

specified (or liquidated) damages—reflect the loss to managers of the value resulting from their sunk costs.” (footnote omitted).

<sup>222</sup> See *id.* (empirically documenting that the adoption of a golden parachute was positively associated with firm value for a sample of firms during the time period 2007–2012). According to research done for a forthcoming coauthored work of one of us, the increase in golden parachutes might have been more significant than it appears pursuant to the RiskMetrics data. Indeed, in hand-checking RiskMetrics data, this work finds that RiskMetrics appears to have underreported the levels of golden parachutes for the period starting in 2008. E-mail from Martijn Cremers, Professor of Fin., Mendoza Coll. of Bus., Univ. of Notre Dame, to Simone Sepe, Professor of Law & Fin., James E. Rogers Coll. of Law, Univ. of Ariz. (Sept. 30, 2015, 3:41 PM) (on file with *Northwestern University Law Review*).

market prices in the short term.<sup>223</sup> This increases the risk that shareholders may misinterpret a short-term drop in profits to be a sign of underperformance when, instead, it reflects the expenses of an attractive investment whose value will not be realized until later.<sup>224</sup>

Similarly, firms where the nature of the business requires more commitment between the corporation and one or more of its stakeholders should be more penalized by short-term shareholder pressure directed at seeking a change in investment policy or a change in control. A shareholder advocate could argue that contracts are a sufficient instrument to address the higher risk of stakeholder expropriation arising in such firms.<sup>225</sup> However, preventing stakeholder expropriation by contract can be impossibly difficult, as both the long-term nature of most stakeholder contracts and the complex and uncertain process of corporate production necessarily make such contracts highly incomplete.<sup>226</sup>

Our working hypothesis is thus that firms with more long-term innovation and those that require stronger firm-specific investments by stakeholders should both benefit more from the adoption of the bilateral protection arrangements included in the C-Index. In order to capture these features of corporate production, we use the following variables: *Research and Development (R&D)*, *Labor Productivity*, and *Large Customer*. *R&D* is a standard measure of innovation,<sup>227</sup> which we use as a proxy for the importance of long-term research and development projects.<sup>228</sup> *Labor Productivity* identifies industries with a higher marginal product of labor and, hence, we use it as proxy for the level of firm-specific investments by

---

<sup>223</sup> See JEAN TIROLE, *THE THEORY OF CORPORATE FINANCE* 249–50 (defining soft information as information that cannot be easily verified even when it is disclosed); Alex Edmans et al., *The Real Costs of Financial Efficiency When Some Information Is Soft 2* (European Corp. Governance Inst., Finance Working Paper No. 380/2013, 2015), [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2316194](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2316194) [<http://perma.cc/8UPK-M2XU>] (describing information on intangible assets as a classic example of soft information that cannot be credibly disclosed to outsiders).

<sup>224</sup> See *supra* text accompanying notes 118–19.

<sup>225</sup> For a long time now, this has been shareholder advocates' standard response to the risk of stakeholder expropriation by shareholders. See, e.g., Jonathan R. Macey, *An Economic Analysis of the Various Rationales for Making Shareholders the Exclusive Beneficiaries of Corporate Fiduciary Duties*, 21 STETSON L. REV. 23, 25 (1991) (arguing that the contracting problems facing "[o]ther constituencies . . . can be solved at far less cost than those confronting shareholders").

<sup>226</sup> See Cremers & Sepe, *supra* note 18, at 121–23.

<sup>227</sup> See generally Edwin Mansfield, *R&D and Innovation: Some Empirical Findings*, in NAT'L BUREAU OF ECON. RESEARCH, *R&D, PATENTS, AND PRODUCTIVITY* 127, 127–29 (Zvi Griliches ed., 1984), <http://www.nber.org/chapters/c10047.pdf> [<https://perma.cc/JZJ6-C25C>].

<sup>228</sup> Data for *R&D* is from Compustat.

the employees.<sup>229</sup> Finally, *Large Customer* is an indicator variable set equal to one if the firm has at least one customer accounting for 10% or more of its sales,<sup>230</sup> which we use as a proxy for the importance of (long-term) firm customers in creating financial value.<sup>231</sup>

Table 4 shows the results of pooled panel *Q* regressions on the E-Index, the C-Index, and the I-Index with and without the interactions with the above proxies (plus our standard controls, whose coefficients are not shown to save space). For all columns of this Table, as well as of Table 5 below, we include year and fixed effects and provide the t-statistics based on robust standard errors clustered at firm level.

---

<sup>229</sup> Data for *Labor Productivity* is at industry level and comes from the U.S. Bureau of Labor Statistics (using the four-digit SIC code). This data is available for only a subset of firms.

<sup>230</sup> See Johnson et al., *supra* note 120, at 316.

<sup>231</sup> Data for *Large Customer* comes from the historic Compustat Segment tapes for 1986–2007. About a quarter of firms in our sample have a *Large Customer*.

NORTHWESTERN UNIVERSITY LAW REVIEW

TABLE 4: INDICES AND FIRM VALUE: COMMITMENT PROXIES INTERACTIONS<sup>†</sup>

<i>Independent Variables</i>	<i>Dependent Variable: Q</i>					
	(1)	(2)	(3)	(4)	(5)	(6)
<i>E-Index</i>	-0.0155 (-1.14)		-0.0622*** (-3.56)		-0.0173 (-1.30)	
<i>C-Index</i>		0.0301 (1.17)		0.0382 (1.03)		0.0536*** (4.44)
<i>I-Index</i>		-0.0398** (-2.26)		-0.0921*** (-4.06)		-0.0505*** (-5.70)
<i>E-Index</i> × <i>R&amp;D</i>	-0.0489 (-0.16)					
<i>C-Index</i> × <i>R&amp;D</i>		1.272* (1.70)				
<i>I-Index</i> × <i>R&amp;D</i>		-0.325 (-1.01)				
<i>E-Index</i> × <i>Labor Productivity</i>			0.0392*** (4.37)			
<i>C-Index</i> × <i>Labor Productivity</i>				0.0441*** (3.27)		
<i>I-Index</i> × <i>Labor Productivity</i>				0.0333*** (2.67)		
<i>E-Index</i> × <i>Large Customer</i>					0.0156 (1.11)	
<i>C-Index</i> × <i>Large Customer</i>						0.0356** (2.22)
<i>I-Index</i> × <i>Large Customer</i>						0.00467 (0.39)
<i>R&amp;D</i>	-0.587 (-0.62)	-1.181 (-1.18)	0.999* (1.76)	1.003* (1.77)	1.429** (2.53)	1.447*** (4.00)
<i>Labor Productivity</i>			-0.219*** (-6.25)	-0.211*** (-6.02)		
<i>Large Customer</i>					-0.0893** (-2.02)	-0.0920*** (-3.41)
<b>Fixed Effects:</b>			Year + Firm			
N	22,053	22,053	18,414	18,414	21,414	21,414
R-sq	0.718	0.719	0.748	0.749	0.743	0.744

<sup>†</sup> In this Table, we present the time-series association between firm value and three governance indices (the E-Index, C-Index, and I-Index) and their interactions with three proxies of the importance of longer-term commitments: *R&D*, *Labor Productivity*, and *Large Customer*, using pooled panel regressions of *Q* with year and firm fixed effects plus a set of standard controls: *Assets*, *ROA*, *CAPX*, *R&D*, and *Industry M&A Volume*. All columns use the full time period 1978–2008. Coefficients on standard controls are not shown to save space. Variables are defined in Appendix Table A. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by \*\*\*, \*\*, and \*, respectively. We provide the t-statistics below each regression coefficient based on robust standard errors that are clustered by firm.

As shown by Columns (1) and (2), when interacting with *R&D*, *E-Index* has a negative but statistically insignificant time-series association with *Q*, *C-Index* has a positive and statistically significant time-series association with *Q*, and *I-Index* has a negative but statistically insignificant time-series association with *Q*. Consistent with our commitment theory of bilateral protection arrangements, this seems to suggest that such arrangements are considerably more strongly related to changes in firm value for firms with more *R&D* investments. Specifically, a one-point increase in *C-Index* during 1978–2008 is associated with a 4.5% larger increase in firm value for firms whose *R&D* is one standard deviation higher than the mean relative to firms whose *R&D* is at the mean.<sup>232</sup>

Our most striking results are those on labor productivity. As shown by Columns (3) and (4), the interaction of *Labor Productivity* with each of the three governance indices has a coefficient that is positive and statistically significant. Economically, these effects are meaningful. A one-point increase in *C-Index* during 1978–2008 is associated with a 1.8%<sup>233</sup> larger increase in firm value for firms whose *Labor Productivity* is a standard deviation above the average, relative to firms with average *Labor Productivity*. The economic magnitude of the *I-Index* interaction is similar. This suggests that in firms where employee contributions are relatively more important for value creation, committing shareholders to a more stable relationship with employees is so relevant that benefits accrue even when unilateral provisions are used to protect managers. In other words, in these cases the positive effects stemming from incentivizing employee firm-specific investments outweigh the detrimental effects generally displayed by such provisions in terms of increased managerial moral hazard.

Finally, results on the three governance indices when interacting with *Large Customer* are similar. As shown by Columns (5) and (6), when interacting with *Large Customer*, *E-Index* has a negative but statistically insignificant coefficient, *C-Index* has a positive and statistically significant coefficient, and *I-Index* has a negative but statistically insignificant coefficient. Similar to *R&D* investments, this suggests that changes to the governance provisions included in the *C-Index* are considerably more

---

<sup>232</sup> The economic significance for the interactions presented in Tables 4 and 5 is calculated as follows. First, we multiply the interaction coefficient and the standard deviation of the proxy that is interacted with the governance index, and, second, we divide the product by the average firm value in our sample. For *R&D*, that calculation is equal to  $1.272 \times 0.06 / 1.69 = 4.5\%$ .

<sup>233</sup> The economic significance for the interaction between *C-Index* and *Labor Productivity* is calculated as follows:  $0.044 \times 0.7 / 1.69 = 1.8\%$ .

strongly related to changes in firm value for firms with a *Large Customer*. Economically, Column (6) shows that a unit increase in *C-Index* is associated with a 2.1%<sup>234</sup> larger increase in *Q* for firms with a large customer. In results that we do not report (due to brevity concerns), we also find that the larger the percentage of a firm's sales accounted for by a *Large Customer*, the greater the positive impact of *C-Index* on firm value (meaning that if a firm's customer accounts for more than 10% of the firm's sales, the impact of *C-Index* on firm value also increases).

Overall, these results strongly support the view that the ability of bilateral protection arrangements to mitigate the limited commitment problem is a primary channel through which these arrangements are positively associated with firm value. The adoption of such arrangements is indeed more strongly related to increases in firm value in firms where ensuring the commitment of shareholders to the longer horizon is more relevant—such as (i) firms that are more engaged in innovation, (ii) firms with large long-term customers, and (iii) firms with more firm-specific labor productivity or where employee commitment is more important for value creation.<sup>235</sup>

2. *Excessive Risk-Taking*.—Creditors are often described as the most important of the firm's stakeholders after shareholders, whose participation in the corporate enterprise is essential to ensuring a corporation's ability to expand and thrive. This has become increasingly the case in the twenty-first century, as radical changes have not only occurred in corporate production, but also in capital structures.<sup>236</sup> Departing from the all-equity (or low-leverage) capital structure of the Berle and Means era, today's corporations exhibit capital structures in which non-equity investments have grown into a steady source of capital—in fact, even a primary source of capital in some industrial sectors.<sup>237</sup>

---

<sup>234</sup> The economic significance for the interaction between *C-Index* and *Large Customer* is calculated as follows:  $0.0356 \times 1 / 1.69 = 2.1\%$ .

<sup>235</sup> Many firms are likely to present such features today, due to firm value having grown increasingly dependent on investments in technological know-how and specialized human capital in the modern corporation. See Cremers & Sepe, *supra* note 18, at 120–21. This has been especially so since the mid-1990s, with the emergence of the digital revolution, consistent with our hypothesis that the importance of bilateral protection arrangements for best governance practices—which began around the same time—is best understood as a response to the intensification of the shareholder limited commitment problem. See *supra* text accompanying notes 212–15.

<sup>236</sup> Simone M. Sepe, *Intruders in the Boardroom: The Case of Constituency Directors*, 91 WASH. U. L. REV. 309, 366 (2013).

<sup>237</sup> *Id.*



It is thus unsurprising that creditors, as a group, are regarded by the law as “a useful proxy for the wider nonshareholder social interests in firm success.”<sup>238</sup> Indeed, as fixed claimants, creditors and other stakeholders are exposed to the risk of wealth-transferring actions that enrich shareholders at their expense.<sup>239</sup> The classic wealth-transfer example is excessive risk taking, which may penalize various firm stakeholders, but especially creditors, given their position as primary providers of non-equity capital.<sup>240</sup> Economically, this problem arises out of the divergent upside and downside potential exhibited by creditors versus shareholders. As fixed claimants, creditors are largely indifferent to increases in returns from corporate assets, while they are highly sensitive to declines in asset value—thus preferring safer investment strategies. In contrast, as residual corporate claimants, shareholders are highly sensitive to increases in equity returns, while the protection of limited liability makes them comparatively less sensitive to losses. Once a corporation has outstanding debt, this payoff structure induces shareholders—and managers acting on their behalf—to prefer riskier over safer projects. Indeed, if things go well, shareholders expect to capture most of the upside potential of riskier projects. If things turn awry, instead, creditors will bear most losses.

Once one acknowledges the dangers that arise from the shareholders’ risk preferences, which may be transmitted to managers, logic requires one to also acknowledge that situating directors and managers at some distance from shareholders might be helpful to constrain excessive risk taking. On this view, we pose that bilateral protection arrangements may serve as a beneficial commitment device through which shareholders bind themselves *ex ante* to limit their future ability to pressure management to undertake riskier projects. This would reduce a corporation’s cost of debt, avoiding that creditors may raise interest rates in anticipation of future excessive risk taking. Empirically, if our interpretation of the relationship between bilateral protection arrangements and excessive risk taking is correct, we would expect to find that the adoption of such arrangements is more

---

<sup>238</sup> Edward B. Rock, *Adapting to the New Shareholder-Centric Reality*, 161 U. PA. L. REV. 1907, 1929 (2013).

<sup>239</sup> See Sepe, *supra* note 236, at 319–20.

<sup>240</sup> In addition to excessive risk-taking (or “asset substitution” or “overinvestment”), other actions that may illegitimately transfer wealth from debtholders to stockholders include the payment of excessively large dividends, the issuance of additional debt, and the rejection of projects with a positive net present value when the benefits from such projects accrue solely to the debtholders. The classic reference on shareholder opportunism toward fixed claimants is Clifford W. Smith, Jr. & Jerold B. Warner, *On Financial Contracting: An Analysis of Bond Covenants*, 7 J. FIN. ECON. 117, 118–19 (1979).

strongly related to increases in firm value in firms that are more exposed to the likelihood of future excessive risk taking.

To test our hypothesis, we employ a widely used proxy for bankruptcy risk, *Z-Score*.<sup>241</sup> By construction, a higher *Z-Score* indicates a firm with low bankruptcy risk, while a lower *Z-Score* indicates a firm with more bankruptcy risk.<sup>242</sup> In running *Z-Score* regressions (i.e., where *Z-Score* rather than *Q* is the dependent variable), which we do not report here to save space,<sup>243</sup> we find that a higher *C-Index* score is associated with a higher *Z-Score* (i.e., less bankruptcy risk). Conversely, a higher *I-Index* score, as well as a higher *E-Index* score, are associated with a lower *Z-Score* (i.e., more bankruptcy risk).

These results show that the adoption of bilateral protection arrangements benefit creditors by reducing a debtor's risk of default, consistent with our theory that such arrangements strengthen a firm's long-term relationship with the various stakeholders. Conversely, unilateral protection arrangements are detrimental to creditors, as they increase a debtor's risk of default. This also seems consistent with our interpretation of unilateral protection arrangements. Indeed, when managerial protection from removal is implemented without explicit shareholder agreement, it is, in general, more likely to have the exclusive purpose of advancing manager self-interest at the expense not only of shareholders, but also creditors.<sup>244</sup>

---

<sup>241</sup> Data for *Z-Score* is from Compustat.

<sup>242</sup> Specifically, firms with a high *Z-Score* are firms with more liquid assets, higher historical and current profitability, better growth opportunities or market valuations of current assets, and higher asset turnover (and vice versa for firms with a low *Z-Score*). The *Z-Score* is calculated as follows:  $Z = 1.2 \times T1 + 1.4 \times T2 + 3.3 \times T3 + 0.6 \times T4 + 0.99 \times T5$ . Edward I. Altman, *Financial Ratios, Discriminant Analysis, and the Prediction of Corporate Bankruptcy*, 23 J. FIN. 589, 594 (1968). Here, T1 = Working Capital / Total Assets, a measure of the liquid assets in relation to the size of the company; T2 = Retained Earnings / Total Assets, a measure of profitability that reflects the company's historical earning power; T3 = Earnings Before Interest and Taxes / Total Assets, a measure of current operating efficiency apart from tax and leveraging factors; T4 = Market Value of Equity / Book Value of Total Liabilities, a proxy of the market's perception of the efficient use of the firm's assets; T5 = Sales / Total Assets, a measure of total asset turnover. *Id.*

<sup>243</sup> We report these results in Appendix Table D.

<sup>244</sup> In the case of golden parachutes, the detrimental effect that such provisions produce on creditors is rather straightforward. Indeed, the substantial payment that a golden parachute may trigger in favor of managers upon a change in control can be regarded as a form of claim dilution, which reduces the expected future cash flows on which creditors can count for the repayment of debt. See Smith & Warner, *supra* note 240, at 118. On the other hand, having a visible pill (rather than only a "shadow pill") suggests that management is particularly set against *any* acquisition attempts from outsiders, regardless of whether that attempt constitutes a threat to a firm's commitment to the long-term horizon or a value-increasing replacement of underperforming management. Thus, firms with a visible pill may also be more apt to employ additional leverage as a second line of defense against a potential takeover, as adding leverage increases a bidder's prospective costs. Sudip Datta & Mai Iskandar-Datta, *Takeover Defenses and Wealth Effects on Securityholders: The Case of Poison Pill Adoptions*, 20 J. BANKING & FIN. 1231, 1232-33 (1996). Alternatively, if a bidder is able to acquire the target (i.e., by having the pill

*Z-Score* regressions, however, are not informative of the relation between a firm's risk exposure and firm value (i.e., shareholder value). However, our conjecture is that a lower level of risk (i.e., a higher *Z-Score*), as promoted by the adoption of bilateral protection arrangements, should result in higher firm value in the long term, benefiting creditors and shareholders alike. In order to verify whether the association between firm value and risk taking is influenced by specific governance arrangements, we run *Q* regressions on the governance indices interacted with *Z-Score*. Table 5 below shows our results.

---

removed), the financing of the takeover generally leads to additional leverage as well (especially if the change of control is implemented through a leveraged buyout). *See id.* In both cases, the claim of existing creditors to corporate assets emerges as diluted by the addition of new, unanticipated debt, increasing the risk to which existing creditors are exposed.

TABLE 5: FIRM VALUE, BANKRUPTCY RISK, AND GOVERNANCE INDICES

	<i>Dependent Variable: Q</i>	
	(1)	(2)
<b>Index Variables</b>		
<i>E-Index</i>	0.00171 (0.10)	
<i>E-Index</i> × <i>Z-Score</i>	-0.00327 (-0.81)	
<i>C-Index</i>		-0.00236 (-0.08)
<i>C-Index</i> × <i>Z-Score</i>		0.0116 (1.51)
<i>I-Index</i>		0.0142 (0.64)
<i>I-Index</i> × <i>Z-Score</i>		-0.0132** (-2.37)
<i>Z-Score</i>	0.101*** (9.35)	0.0985*** (9.01)
<b>Fixed Effects:</b> Year + Firm		
N	18,939	18,939
R-sq	0.725	0.726

† In this Table, we present the time-series association between firm value and *Z-Score*, a proxy of bankruptcy risk, as interacted with three governance indices (the *E-Index*, *C-Index*, and *I-Index*) using pooled panel *Q* regressions with year and firm fixed effects plus a set of controls: *CAPX*, *R&D*, and *Industry M&A Volume*.<sup>245</sup> All columns use the full time period 1978–2008. Coefficients on standard controls are not shown to save space. Variables are defined in Appendix Table A. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by \*\*\*, \*\*, and \*, respectively. We provide the t-statistics below each regression coefficient based on robust standard errors that are clustered by firm.

Consistent with our conjecture, Table 5 shows that a higher *Z-Score* has a positive coefficient equal to 0.101 (with a t-statistic of 9.35). This suggests that firms with a *Z-Score* that is a standard deviation higher than the mean experience a 14.6% higher firm value relative to firms with a *Z-*

<sup>245</sup> In Table 5, we do not control for *Assets* and *ROA*, as these variables capture similar firm characteristics as those embedded in *Z-Score*. If we add *Assets* and *ROA* as controls to Column (2), the coefficient and t-statistic for the interaction of *Z-Score* and *C-Index* remain unchanged, but the coefficient of the interactions of *Z-Score* and *I-Index* goes down to -0.0072 with a t-statistic of 1.37, indicating lower statistical significance with an associated p-value of 17% (i.e., above typical levels of statistical significance used in the literature).

*Score* that is at the mean.<sup>246</sup> Combined with the results we obtain in *Z-Score* regressions—that increases in *C-Index* are associated with increases in *Z-Score*, strengthening firm stability and thus creditor prospects—this result supports the view that bilateral protection arrangements benefit both creditors and shareholders.

This interpretation of the relationship between governance arrangements, risk, and firm value is further supported by the results we obtain for the *Q* regressions on *C-Index* when interacting with *Z-Score*. As shown by Column (2), the interaction coefficient is positive and equal to 0.0116,<sup>247</sup> implying that a one-point increase in *C-Index* is associated with a 1.7% larger increase in firm value for firms with a high *Z-Score* relative to firms with a low *Z-Score*.<sup>248</sup> This suggests that bilateral protection arrangements are more strongly associated with increases in firm value in firms that currently have a relatively low bankruptcy risk and hence may have more potential to engage in future excessive risk (as their level of risk is not excessive already).

In contrast to the coefficient of *C-Index*, the coefficient of *I-Index* is negative and statistically significant, equal to -0.0132 (shown in Column (2)). This suggests that a one-point increase in *I-Index* is associated with a 1.9% larger decrease in firm value for firms with a high *Z-Score* relative to firms with a low *Z-Score*.<sup>249</sup> The adoption of the provisions included in the *I-Index* thus seems more detrimental to firms that are more likely to engage in future excessive risk. This is consistent with our interpretation that unilateral protection arrangements are likely to have, in general, an opportunistic motivation, to the detriment of both shareholder and creditor interests.

---

<sup>246</sup> We calculate the economic significance as follows: We multiply the coefficient of 0.101 for *Z-Score* by the standard deviation of *Z-Score* (2.44), and divide the result by the average *Q* in the sample (1.69).

<sup>247</sup> The statistical significance of the interaction of *Z-Score* and *C-Index* has a t-statistic of 1.51, which has an associated p-value of 13%. This means that it is just above the typical level of marginal statistical significance used in the literature, but in our interpretation it suggests that the interaction is relevant, though should warrant a more cautious interpretation than coefficients that are strongly statistically significant.

<sup>248</sup> We calculate the economic magnitude of the effect as follows: We multiply the coefficient of 0.0116 by the standard deviation of *Z-Score* (2.44), and divide by the average *Q* in the sample (1.69). As a result, the difference between “high” and “low” *Z-Score* here is assumed to be one sample standard deviation in *Z-Score*, equal to 2.44.

<sup>249</sup> Similar to *C-Index*, also here we multiply the coefficient of -0.0132 by the standard deviation of *Z-Score* (2.44), and divide by the average *Q* in the sample (1.69). As a result, the difference between “high” and “low” *Z-Score* here is assumed to be one sample standard deviation in *Z-Score*, equal to 2.44.

IV. BOARD AUTHORITY, MANAGERIAL ACCOUNTABILITY, AND  
STAKEHOLDER INTERESTS

Our analysis of the E-Index challenges the view that reducing entrenchment is what matters the most in corporate governance—suggesting that promoting a firm’s commitment to the long term matters as well, and potentially much more. The implications of this analysis are significant for debates concerning both the means and ends of corporate governance. Theoretically, it shows that when the shareholder wealth maximization mandate is rightly understood as focusing on the long-term horizon,<sup>250</sup> the republican version of the board-centric model emerges as better suited to pursue that mandate than a direct shareholder democracy model. By protecting directors from short-term removal with the *ex ante* agreement of shareholders, the former model preserves a board’s ability to put in place a commitment to the long term—which shareholders themselves are unable to provide due to their limited commitment problem.<sup>251</sup> Empirically, this conclusion is corroborated by the evidence that the republican corporate model is strongly associated with increases in long-term firm value, especially in firms where the limited commitment problem is likely to be more significant.<sup>252</sup>

Our account of corporate governance, however, has still not addressed the major criticism raised by shareholder advocates against the board-centric model: that enhanced board authority necessarily comes at the expense of reduced managerial accountability. Because under that model directors and managers are removed (even if only temporarily so) from the judgment of shareholders, it is argued that there no longer is a mechanism through which they are held accountable for their actions—with the result that in the end the only wealth that is maximized is that of directors and managers themselves.<sup>253</sup> The clearest implication of this account of board authority concerns the consideration of stakeholder interests. When

---

<sup>250</sup> See *supra* Section II.A.2.

<sup>251</sup> See *supra* text accompanying notes 118–20.

<sup>252</sup> See *supra* Parts II–III. Of course, changes in the six constituent provisions in the E-Index are endogenous, and partly under the firm’s control. As typical of corporate governance studies, we do not have clear exogenous variation in firm-level changes to these provisions. Rather, our identification is indirect and comes from two sources. First, our alternative account of what really matters in corporate governance predicts the opposite sign (i.e., positive rather than negative) for the association with firm value of bilateral protection arrangements as compared to unilateral arrangements. Second, our alternative governance account identifies firms where the limited commitment problem is more severe as those where bilateral protection arrangements are likely to be more positively associated with firm value. In our empirical work, we test these two sets of predictions and find strong support for both in the data.

<sup>253</sup> See Bainbridge, *supra* note 60, at 565–66 (summarizing this argument).

directors and managers are empowered to consider such interests, so the argument goes, they can more easily camouflage opportunities for managerial moral hazard as being beneficial to stakeholders, at the expense of corporate profitability.<sup>254</sup>

Yet, this Article's evidence that the republican board-centric model is strongly associated with increased firm value suggests that something is missing in current analyses of the relationships among board authority, managerial accountability, and stakeholder interests. In this Part, we draw on the economic theory of soft and hard budget constraints to demystify those relationships and their intertemporal dynamics, and explain how criticism of the board-centric model has been misdirected due to the wrong assumption that board authority and accountability are antithetical.

### A. *Soft and Hard Budget Constraints*

The criticism that a board-centric model lacks managerial accountability can be framed as a “soft budget constraint” problem. Originally formulated by economist János Kornai,<sup>255</sup> the term soft budget constraint is used to describe an economic environment in which the occurrence of “failure”—poor performance as benchmarked against objective metrics, such as those captured by prices—triggers inefficient support rather than “punishment” (for example through the liquidation of the failing entity).<sup>256</sup> The classic example is that of firms in planned economies.<sup>257</sup> Conversely, economists refer to a “hard budget constraint” when failure leads to efficient ex post settling up, as generally happens in the context of market economies.<sup>258</sup>

The intuition for why a market framework is more likely to hold to a hard budget constraint—and then to offer better accountability mechanisms—is that decentralized decisionmaking mitigates the likelihood that private interests may lead to rescue in cases where it would be efficient to reduce or cease an activity. In contrast, when the decision process is centralized, such as in planned economies or within the boundaries of the firm, decisionmakers are more likely to exhibit private interests that

---

<sup>254</sup> See *id.* at 581.

<sup>255</sup> See J. Kornai, *Resource-Constrained Versus Demand-Constrained Systems*, 47 *ECONOMETRICA* 801, 801 (1979).

<sup>256</sup> See *id.* at 806–08; János Kornai et al., *Understanding the Soft Budget Constraint*, 41 *J. ECON. LITERATURE* 1095, 1097 (2003).

<sup>257</sup> See Kornai et al., *supra* note 256, at 1096.

<sup>258</sup> See Kornai, *supra* note 255, at 806–08.

motivate them to “meddle” with failure.<sup>259</sup> Decentralization thus provides a better remedy against the risk of an agent’s moral hazard by making it more credible that the decisionmaker will hold to a hard budget constraint. When an agent expect failure to be punished ex post by the decisionmaker, with punishment being costly to the agent, she will have stronger incentives to expend costly effort. On the contrary, when the agent expect failure to be tolerated by the decisionmaker, the agent’s incentives for effort are weakened, as expending effort may be more costly to the agent than the consequences of failure.<sup>260</sup>

It is then easy to see why the soft budget constraint literature seems to support the desirability of a direct democracy model of the corporation with stronger shareholder rights (i.e., market discipline). When authority is vested in financial markets, rather than the board, the firm’s budget constraint naturally hardens. This is because markets can more credibly commit to punish low firm outcomes than directors, whose incentives may deviate according to their private interest in compensation and job retention.

Yet, as straightforward as this account of corporate relationships may appear, it oversimplifies the conceptual apparatus of the soft–hard budget constraint. It does so by downplaying the risk that informational inefficiencies and other market imperfections may make performance benchmarks potentially inaccurate. As discussed earlier, with discontinuous prices, the market may be unable to fully capture fundamental values in the short horizon<sup>261</sup> and, therefore, to accurately gauge whether “failure” has occurred. In this case, holding the corporation to a hard budget constraint may lead to undesirable effects,<sup>262</sup> as shareholders may end up punishing corporate insiders in the short term when efficiency would require them to commit to the long term.

Within this analytical framework, neither a pure hard budget constraint model of the corporation (i.e., a shareholder democracy) nor a pure soft budget constraint model (i.e., unilateral incumbent protection) is

---

<sup>259</sup> See Kornai et al., *supra* note 256, at 1098–100.

<sup>260</sup> See M. Dewatripont & E. Maskin, *Credit and Efficiency in Centralized and Decentralized Economies*, 62 REV. ECON. STUD. 541, 541–42 (1995) (formalizing the soft budget constraint problem as a financial commitment problem).

<sup>261</sup> See *supra* note 138 and accompanying text.

<sup>262</sup> Economists Mathias Dewatripont and Eric Maskin formally showed that the disciplinary effects of a decentralized credit model (i.e., a hard budget constraint) may foster an overemphasis on short-term results if the realization of the firm’s project only occurs in the long term and, at the interim stage, good projects are hardly distinguishable from bad projects. See Dewatripont & Maskin, *supra* note 260, at 542.



desirable, as they both provide corner solutions.<sup>263</sup> The former model minimizes moral hazard at the expense of the distortions arising from the limited commitment problem, and vice versa. Optimal corporate governance should instead provide an “interior solution”<sup>264</sup> (or a “hybrid”), which holds the corporation to a soft budget constraint in the short term, mitigating the distortions arising from the limited commitment problem, and a hard budget constraint in the long term, reducing the risk of managerial moral hazard. A republican corporate model is the governance system that better approximates this interior solution.

On the one hand, unlike the shareholder democracy model, the republican model grants directors the ability “to soften the budget constraint” in the short term through the adoption of bilateral protection arrangements. More specifically, by short term, we refer to the beginning of a director’s tenure, when it is more likely that directors may have an informational advantage over financial markets and, hence, that prices may fail to fully reflect the implications of a given investment policy. Under these circumstances, the ability “to soften the budget” empowers directors to take actions that tolerate what may appear to the market as “early failure” (e.g., low short-term earnings), when short-term tolerance is required to foster innovation and other long-term projects, as well as to promote stronger stakeholder relationships.<sup>265</sup>

On the other hand, the republican model departs from the dictatorial model that shareholder advocates seem to have in mind when criticizing any form of directorial protection from removal. In contrast to this account, protecting directors from removal does not emerge as antithetical to board accountability, as long as it is the result of the mutual agreement of the board and shareholders (or, if board protection from removal has a unilateral nature, it is limited in time). Indeed, only by assuming that directors and managers who experience chronic losses are punished rather than rescued—thus being held to a hard, rather than soft, budget constraint in the long term—can one explain the positive association we document between adopting bilateral protection arrangements and increases in firm value over time.<sup>266</sup>

---

<sup>263</sup> See MICHAEL CARTER, FOUNDATIONS OF MATHEMATICAL ECONOMICS 502 (2001) (defining a “boundary,” i.e., “corner,” solution as the one that “lies on the boundary of the feasible set” of solutions to an optimization problem).

<sup>264</sup> See *id.*

<sup>265</sup> Cf. Gustavo Manso, *Motivating Innovation*, 66 J. FIN. 1823, 1824 (2011) (defending compensation schemes that exhibit more “tolerance” for early failure and reward long-term performance as efficient).

<sup>266</sup> See *supra* Tables 2 & 3.

This suggests that the republican model of the corporation does not jeopardize market-based accountability mechanisms, but rather ensures that those mechanisms operate in the time frame in which they are more likely to be effective. As time progresses and a director's tenure matures, the implications of directorial decisions begin to show up in cash flows. As a result, market prices become more likely to incorporate the real value of past corporate policies and convey accurate information on how well or poorly directors manage a firm. Viewed through this lens, bilateral protection arrangements ensure that shareholders hold incumbents accountable in the long term, when the former are likely to be better positioned to evaluate directorial and managerial actions.

For example, in spite of the oft-repeated remark by shareholder advocates that a staggered board insulates directors from market discipline, the usual three-year term served by directors in a staggered board does not permanently remove them from the judgment of the market. Instead, that longer term provides a time frame for directorial evaluation by the shareholders that is less likely to be biased by informational inefficiency. Similarly, supermajority requirements to amend the charter and approve mergers do not reduce long-term directorial accountability, but constructively strengthen board authority in the short term. The logic is the same as the logic that underlies proposals—advanced by shareholder advocates—that managers should be compensated for good performance only after a time frame that allows for adequate evaluation of their actions.<sup>267</sup> In the same way, managers should be punished, if that is appropriate, only after sufficient time has passed to gauge the full implications of their allegedly bad actions.

### *B. Demystifying the Stakeholder Interests Problem*

Viewing the republican corporate model as a unique organizational solution that holds directors to a soft budget constraint in the short term and a hard budget constraint in the long term demystifies much of the criticism levied against the consideration of stakeholder interests in corporate governance. One classic criticism is that consideration of such interests is

---

<sup>267</sup> See, e.g., BEBCHUK & FRIED, *supra* note 54, at 191 (arguing for limits on managers' "freedom to unwind the equity-based incentives created by their compensation plans"). As Delaware Supreme Court Chief Justice Leo E. Strine, Jr. remarked, this position seems difficult to reconcile with "Bebchuk's career-long obsession" for shareholder democracy, sounding like an admission on Bebchuk's "part that increasing demands on corporations to manage to immediate stock market pressures might not be good for stockholders or society generally." Strine, *supra* note 111, at 467.

designed to pursue social goals unrelated to corporate profitability.<sup>268</sup> On this view, the board's commitment to stronger shareholder relationships would come at the expense of shareholder profits, empowering directors with the ability to reallocate wealth from shareholders to stakeholders. This view of shareholder–stakeholder relationships, however, is lacking both empirically and theoretically.

Empirically, we have shown that protecting board authority to secure a firm's commitment to long-term stakeholder relationships seems to benefit stakeholders and shareholders alike, especially in firms where specific stakeholder investments are likely to matter the most. The remarkable economic success of the management corporation is also consistent with our empirical results. As discussed earlier, bilateral protection arrangements seem to have emerged as a corrective to the erosion of board authority brought about by the rise of shareholder power.<sup>269</sup> Accordingly, if the above criticism of shareholder advocates was correct, shareholders should be better off today than they have historically been under the management corporation model, for that model granted directors discretion to consider a wide range of corporate interests, as long as it was instrumental to promote corporate growth.<sup>270</sup> Instead, the management corporation “generated wealth in a stable, steep-curved way”<sup>271</sup> during the so-called golden age of American capitalism.<sup>272</sup>

Theoretically, the above criticism both underestimates the value to shareholders of securing optimal stakeholder investments and erroneously seems to treat shareholder wealth maximization as an end in itself. As a result of the radical changes that have occurred in both corporate production and capital structures, promoting firm-specific stakeholder investments—such as investments by specialized employees or long-term relationships with creditors or large customers—has become increasingly essential to the pursuit of corporate profitability.<sup>273</sup> Further, short-term

---

<sup>268</sup> See, e.g., Bainbridge, *supra* note 60, at 549 (summarizing this argument).

<sup>269</sup> See *supra* text accompanying notes 212–15.

<sup>270</sup> See *supra* notes 39–40 and accompanying text.

<sup>271</sup> Jacobs, *supra* note 60, at 1646.

<sup>272</sup> One study reports that from 1933 until 1976, i.e., roughly speaking, the era of managerial capitalism, the total real compound annual return on the stocks of the S&P 500 was 7.6%. Roger Martin, *The Age of Customer Capitalism*, HARV. BUS. REV., Jan.–Feb. 2010, at 58, 60, <https://hbr.org/2010/01/the-age-of-customer-capitalism> [<http://perma.cc/8D8F-QSUE>]. From 1976 until 2011, during which period board authority was increasingly weakened by empowered shareholders, the comparable return has been 5.9%. *Id.*

<sup>273</sup> See *supra* note 235. A concrete example is offered by the value that the outstanding skills of Google engineers deliver to the company. This might explain why “Googlers” enjoy an extremely high level of perks—including, among others, free food and shuttle services, travel insurance, on-site

transfers of wealth from shareholders to stakeholders may be instrumental in increasing long-term shareholder *and* firm value in the context of asset pricing inefficiency. Indeed, with discontinuous market prices, directors are likely to have superior information regarding whether a course of action deviating from short-term shareholder wealth maximization will enhance long-term firm value. Hence, as long as a transfer of wealth from shareholders to stakeholders is going to pay off in the long run, such a transfer should be deemed beneficial, rather than detrimental, to shareholder interests.<sup>274</sup>

Another classic criticism raised against the consideration of stakeholder interests in corporate governance is that it would exacerbate managerial moral hazard, necessarily leading to abandonment of the goal of shareholder wealth maximization and, hence, to indeterminate results.<sup>275</sup> As we have shown, however, the bilateral model does not discard the shareholder wealth maximization mandate; rather it ensures that such a mandate efficiently operates in the long term. In practice, this means that while directors and managers are free to assess the intertemporal tradeoffs that must be made among competing corporate constituencies—exploiting their informational advantage on the long-term value to shareholders of

---

physicians and nurses, generous maternity or paternity leaves, low-cost legal advice, and death benefits. *Google Careers: Benefits*, GOOGLE, <https://www.google.com/about/careers/lifeatgoogle/benefits/> [<https://perma.cc/L66M-TJDQ>]. Whereas the classic account of stakeholder–shareholder relationships portrays the improvement of employees’ social conditions as necessarily antithetical to shareholder profits, the Google example speaks to the contrary. Google’s perks might raise expenses to Google’s shareholders. Yet, they are likely to deliver them benefits that largely outweigh those expenses by helping to retain key employees and—as stated on the company’s website—by removing barriers that could prevent Googlers from optimally focusing on their work. *See id.*

<sup>274</sup> Consider the classic example of directors faced with the decision of whether to close an obsolete plant. In the standard narrative, this example is used to illustrate the inefficiency to which allowing directors to consider stakeholder interests may lead. Increased directorial discretion—so the argument goes—enhances directors’ ability to camouflage their own interests as concern for stakeholder interests, making it easier for the directors to keep the plant open even when it would be efficient to close it. *See* Bainbridge, *supra* note 60, at 581–82. Yet, this narrative takes for granted that any attempt to rescue the plant is value destroying, while also assuming that it is public information. In actuality, however, directors are likely to have competitive private information on the future value of an apparently obsolete plant, as well as on the gains to be made by strengthening a firm’s commitment to nonshareholder constituencies, such as local communities. Allowing directors to take actions that account for similar intertemporal tradeoffs will benefit shareholders and stakeholders alike in the long term. Yet, a shareholder advocate could argue that a relaxation of directors’ focus on shareholder wealth maximization might allow them to justify a decision to keep the plant open even when there are no future gains to be made. This argument, however, can only be sustained if one assumes a static context (i.e., a one-shot game), in which allowing directors to deviate from the shareholder wealth maximization mandate in the short term is equivalent to abandoning that mandate altogether. However, in a dynamic context, in which directors are held accountable for the decision to keep the plant open based on long-term outcomes and share value, they are unlikely to do so unless they expect substantial future gains from this course of action.

<sup>275</sup> *See id.* at 581 (referring to this criticism as the “two masters problem”).

stakeholder participation—they remain accountable for those tradeoffs against the benchmark of long-term shareholder value. This mitigates the risk that directors and managers may opportunistically exploit stakeholder interests to pursue their personal interests, as the possibility of long-term shareholder retribution continues to ensure the existence of effective accountability mechanisms.<sup>276</sup>

## V. POLICY CONSIDERATIONS

The conclusion of our analysis of the relationship between corporate governance and firm value is that protection of incumbents from removal benefits shareholder and societal interests as long as it is the result of the mutual agreement of the board and the shareholders (or, if the protection has a unilateral nature, it is limited in time). It does so by committing shareholders to preservation of a board's ability to optimally pursue long-term value maximization strategies, without jeopardizing board exposure to shareholder discipline in the longer term. This conclusion not only is at odds with the findings of the literature on governance indices. It also has fundamental implications both for the providers of commercial governance indices and for regulators, which have largely adhered to the misguided proposition that stronger shareholder rights are an all-purpose remedy in corporate governance.

---

<sup>276</sup> Our account of the relationship between board authority, stakeholder interests, and managerial accountability also helps bridge the gap between the two of the most prominent board-centric models of the corporation—the “team production model,” developed by Professors Margaret Blair and Lynn Stout, and the “director primacy model,” developed by Professor Steven Bainbridge. See Blair & Stout, *supra* note 60; Bainbridge, *supra* note 60. For Blair and Stout, protecting board authority vis-à-vis shareholders is instrumental to promote optimal firm-specific investments by all the corporate participants, avoiding that shareholders might use their corporate power to opportunistically expropriate other stakeholders. See Blair & Stout, *supra*, at 251–54. They accordingly argue that directors are charged with maximizing the joint welfare of all constituents who make firm-specific investments. See *id.* For Bainbridge, instead, board authority is the response to shareholders' informational and collective action problems, but needs to exclusively focus on the end of maximizing shareholder value. See Bainbridge, *supra*, at 557–59, 574. The alleged differences between these models, however, are much reduced when one conceives of enhanced board authority as a response to the limited commitment problem and the distortions arising from a static approach to shareholder wealth maximization. On the one hand, our theoretical framework reconceptualizes suboptimal stakeholder investments as a major cost arising from the inability of shareholders with strong exit rights to commit to not predating the board's informational advantage over time—reconciling the theoretical foundations of the two models. On the other hand, it rationalizes short-term transfers of wealth from shareholders to stakeholders as a means to maximize long-term shareholder *and* firm value—also reconciling the team production model and the director primacy model along the end axis of corporate governance.

*A. Are Commercial Indices Reliable?*

As discussed, proxy advisors' indices share the basic assumption of academic governance indices like the G-Index and the E-Index, namely that stronger shareholder rights unequivocally equate to best governance practices.<sup>277</sup> From a theoretical perspective, then, commercial indices are exposed to criticisms analogous to those affecting academic indices. However, the former bear much more significant practical implications, given the direct, and huge, influence they exert on corporate practices at many U.S. corporations, as well as on the corporate governance strategies of most American institutional investors.

Under our analysis of corporate governance, the strong emphasis placed by proxy advisors on shareholder rights emerges as pushing U.S. corporations in directions that are likely to be counterproductive, and, potentially, accountable for the increased short-termism observed in U.S. markets. This result is even more problematic if one considers the conflicts of interests that may affect the actions of proxy advisors. Our concern arises by a simple consideration. The case for stronger shareholder rights inherently promotes shareholder empowerment and thus increased shareholder activism, resulting in more intense voting advisory activity and hence increased revenues for proxy advisors.<sup>278</sup> Therefore, while shareholder empowerment may or may not benefit shareholder and societal

---

<sup>277</sup> See *supra* text accompanying notes 90–98.

<sup>278</sup> A further concern is posed by the additional role that several proxy firms perform as governance advisors. This dual role raises the concern that these firms' voting recommendations to investors may be influenced by whether or not the subject company has also purchased any governance advice from such firms. See, e.g., U.S. GOV'T ACCOUNTABILITY OFF., GAO-07-765, CORPORATE SHAREHOLDER MEETINGS: ISSUES RELATING TO FIRMS THAT ADVISE INSTITUTIONAL INVESTORS ON PROXY VOTING 4 (2007) (arguing that the dual role served by proxy advisors as investors and companies' consultants could "lead corporations to feel obligated to retain ISS's consulting services in order to obtain favorable proxy vote recommendations"); Rose, *supra* note 90, at 906–07 (comparing the potential conflict affecting proxy advisors to the conflict affecting accounting firms that acted as both auditors and advisers before the Sarbanes–Oxley reform). ISS has historically dismissed similar concerns arguing that it discloses information about potential conflicts, while its proxy advisory and corporate consulting businesses operate through a system of "Chinese walls," with separate staff, separate buildings, and segregated office equipment and information databases. E.g., Gary Retelny, President, Institutional Shareholder Servs., Inc., U.S. Securities and Exchange Commission Proxy Advisory Firms Roundtable 110–11 (Dec. 5, 2013), <http://www.sec.gov/spotlight/proxy-advisory-services/proxy-advisory-services-transcript.txt> [<http://perma.cc/LQ27-BZPV>]. Nonetheless, in June 2014, the SEC's Divisions of Investment Management and Corporation Finance issued new regulatory guidelines concerning the activity of proxy advisors. Among other issues, the new SEC guidelines require specific, nongeneric disclosure to be made of the nature and scope of significant relationships or material interests in the matter that is the subject of a voting recommendation (either publicly or directly to the client), while rejecting the practice of "boilerplate language" about potential conflicts as insufficient. SEC Staff Legal Bulletin No. 20 (June 30, 2014), <http://www.sec.gov/interps/legal/cfs1b20.htm> [<http://perma.cc/9NJM-KDYE>].

interest in the long term, it definitely advances the private interests of proxy advisors.<sup>279</sup>

The potential for this conflict raises the question of why investors continue to rely on indices that have the potential to push corporations toward bad, rather than good, corporate governance. Simply concluding that proxy advisors have manipulated the investors purchasing their services does not seem plausible, given the sophisticated nature of all involved parties.<sup>280</sup> Three alternative explanations seem more plausible. First, second-guessing the voting recommendations of proxy advisors, as well as the construction of commercial indices, would require investors to turn into governance specialists, which seems incompatible with a cost-effective division of corporate roles, even among sophisticated parties. Second, the intellectual support provided by academic governance indices to the use of commercial governance indices might have reinforced investors' belief that there was, after all, no urgent need to second-guess the recommendations of proxy advisors. When one considers the additional endorsement that the case for stronger shareholder rights has received by recent regulatory reforms,<sup>281</sup> that need becomes even less urgent. Third, at least as concerns hedge funds and some institutional investors, one cannot exclude that these corporate actors may have had their own reasons to endorse voting recommendations that supported enhanced shareholder power and, hence, facilitated the exercise of short-term speculative options.<sup>282</sup>

For all the above reasons, the fact that firms selling governance ratings are commercially successful cannot be interpreted as evidence that governance ratings are unequivocally useful to investors. On the contrary, the results of our study raise severe challenges for investors' use of commercial governance indices, calling into question the indices' main proposition—that stronger shareholder rights are an all-purpose remedy in corporate governance. In response, a shareholder advocate could argue that we produce no direct evidence on the association between commercial

---

<sup>279</sup> We are not the first to acknowledge similar concerns. Former SEC Commissioner Daniel Gallagher has voiced similar concerns in several speeches and commentaries. *See, e.g.*, Daniel M. Gallagher, *Outsized Power & Influence: The Role of Proxy Advisers*, HARV. L. SCH. F. CORP. GOVERNANCE & FIN. REG. (Sept. 5, 2014), <http://corpgov.law.harvard.edu/2014/09/05/outsized-power-influence-the-role-of-proxy-advisers> [<http://perma.cc/74NL-HXAR>] (arguing that a central problem with investment advisers is making sure that they vote in the investor's best interest rather than their own).

<sup>280</sup> *See* Bhagat et al., *supra* note 14, at 1859.

<sup>281</sup> *See infra* Section V.B.

<sup>282</sup> *See supra* notes 108–12 and accompanying text.

governance indices and firm value and, hence, cannot derive implications on the reliability of such indices in identifying good governance practices. Yet this position seems to overlook the following three facts. First, the index adopted by the second most widely used proxy advisory firm, Glass, Lewis & Company, almost exactly replicates the E-Index.<sup>283</sup> Second, while the ISS's Corporate Governance Quotient notably includes many variables that are not captured by the E-Index (or other academic indices),<sup>284</sup> the ISS notably opposes governance arrangements that protect directors from shareholder removal<sup>285</sup> or otherwise weakens shareholder rights.<sup>286</sup> Third, other recent empirical studies support the conclusion that commercial governance indices are not reliable predictors of good governance practices<sup>287</sup> and may even “have the unintended economic consequence that boards of directors are induced to make choices that decrease shareholder value.”<sup>288</sup>

Hence, the possibility that self-interest might explain the uniform defense of stronger shareholder rights by proxy advisors cannot be easily dismissed. Instead, action by the SEC would be desirable to exclude with certainty that proxy advisors—among the most influential corporate players—are acting to primarily advance their own interests, rather than that of the investors for which they serve as fiduciaries. To this end, we share the call for an intervention of the SEC to require proxy advisory firms to disclose the proprietary, quantitative algorithms they use in the construction of commercial indices.<sup>289</sup> Of course, it might be that these

---

<sup>283</sup> See *supra* notes 94–95 and accompanying text.

<sup>284</sup> See Daines et al., *supra* note 92, at 442.

<sup>285</sup> See ISS, 2014 U.S. PROXY VOTING SUMMARY GUIDELINES 10 (2013) [hereinafter ISS GUIDELINES], <http://www.issgovernance.com/file/files/2014ISSUSSummaryGuidelines.pdf> [<https://perma.cc/56U4-9QUY>].

<sup>286</sup> See *id.* at 23–28.

<sup>287</sup> E.g., Daines et al., *supra* note 92, at 460 (concluding that commercial indices “have either limited or no success in predicting firm performance or other outcomes of interest to shareholders”).

<sup>288</sup> David F. Larcker et al., *Outsourcing Shareholder Voting to Proxy Advisory Firms*, 58 J.L. & ECON. 173, 203 (2015) (examining the consequences of proxy advisory firms’ recommendations during the 2011 proxy season and finding a negative stock market reaction to compensation changes adopted under such recommendations).

<sup>289</sup> See, e.g., Petition Letter from Edward S. Knight, Exec. Vice President, Gen. Counsel, & Chief Regulatory Officer, NASDAQ OMX Grp., Inc., to Elizabeth M. Murphy, Sec’y, U.S. Sec. & Exch. Comm’n, 7 (Oct. 8, 2013), <http://www.sec.gov/rules/petitions/2013/petn4-666.pdf> [<http://perma.cc/74DF-XPSD>] (urging public disclosure of proxy advisors’ proprietary information); CTR. ON EXEC. COMP., A CALL FOR CHANGE IN THE PROXY ADVISORY INDUSTRY STATUS QUO: THE CASE FOR GREATER ACCOUNTABILITY AND OVERSIGHT 55 (2011), [http://www.execcomp.org/docs/c11-07a%20Proxy%20Advisory%20White%20Paper%20\\_FULL%20COLOR\\_.pdf](http://www.execcomp.org/docs/c11-07a%20Proxy%20Advisory%20White%20Paper%20_FULL%20COLOR_.pdf) [<http://perma.cc/68FR-E6JH>] (pointing to the “general lack of transparency in many of



algorithms can better capture the relationship between governance choices and firm performance than our study—for example, because they are constructed to more accurately account for market trends or because they can rely on more comprehensive data sources.<sup>290</sup> Nevertheless, our study—covering thirty years of corporate governance choices—strengthens the case for requiring that the proprietary information of proxy advisors be made available to the SEC. More generally, our analysis also raises the question of whether governance ratings should be administered by a public or nonprofit independent agency.<sup>291</sup> This solution would have the benefit of minimizing the risk of potential conflict of interests. To be sure, more extensive investigation into the feasibility and the costs of such a proposal would be necessary, but a discussion of the potential for public governance ratings seems worthwhile to pursue under the challenges this Article has raised for commercial governance indices.

### B. *The Shareholder Direction of Federal Regulation*

A further important implication of our analysis involves the appropriate form of governance regulation. Recently, the view that shareholder empowerment embodies that form has made substantial gains. Among others, these gains have included (1) the introduction of amendments to proxy filing requirements facilitating the use of shareholder precatory proposals;<sup>292</sup> (2) changes to the Delaware General Corporation Law enabling majority voting in the election of directors,<sup>293</sup> as well as greater shareholder access to the ballot box;<sup>294</sup> and (3) the Dodd–Frank

---

the methodologies, metrics and decision processes” of proxy advisory firms as a major issue affecting the activity of such firms).

<sup>290</sup> See Daines et al., *supra* note 92, at 441 (arguing that commercial governance indices might provide better measures of governance quality than academic indices).

<sup>291</sup> Regulators already use “public governance ratings” for banks, namely the CAMELS ratings. See FED. DEPOSIT INS. CORP., RISK MANAGEMENT MANUAL OF EXAMINATION POLICIES § 1.1, at 3 (2015). (CAMELS stands for Capital adequacy, Asset quality, Management, Earnings, Liquidity, and Sensitivity to market risk).

<sup>292</sup> See Marcel Kahan & Edward Rock, *Embattled CEOs*, 88 TEX. L. REV. 987, 1013–15, 1017–22 (2010) (providing a thorough discussion of the changes that have occurred in proxy rules in the past twenty years).

<sup>293</sup> See *id.* at 1010–11. To be elected to the board under a majority voting system, a director is required to win the votes of a majority of the shares voting. In contrast, in the traditional plurality voting system, the director with the most votes—and thus, potentially, even a single vote—wins. *Id.* at 1010.

<sup>294</sup> See DEL. CODE ANN. tit. 8, § 112 (2015) (giving shareholders the right to nominate dissident slates of directors); *id.* § 113 (allowing shareholders to adopt bylaws that reimburse “expenses incurred by a stockholder in soliciting proxies in connection with an election of directors”).

Act's introduction of say-on-pay shareholder votes and further expansion of the scope of shareholder proposals.<sup>295</sup>

Shareholder advocates have praised these reform interventions as consistent with the assumption that “statistics provided by academic research provide objective evidence that is valuable for policymaking.”<sup>296</sup> While we share that assumption, we challenge the contention that available empirical evidence supports the case for shareholder empowerment as it ignores the intertemporal dynamics of firm-value maximization and the limited commitment problem. Contrary to that contention, our comprehensive analysis of corporate governance has showed that there is value in limiting shareholder rights to interfere with board decisionmaking in the short term, *if* such limits involve a bilateral commitment of both shareholders and directors to corporate stability, longer-term investment strategies, and stronger stakeholder relationships. Unless shareholder advocates can expose flaws in our research and counter it with research that avoids these flaws, the evidence produced by this Article should be regarded as changing the relevant empirical facts to be considered by regulators and policymakers.

In particular, this evidence challenges the introduction of amendments to proxy rules, as well as more recent amendments expanding the scope of shareholder proposals. As a result of these reforms, it has today become possible—and increasingly common—for shareholders to solicit (1) opposition to a management proposal, including merger proposals, (2) the withholding of votes in directors elections, and (3) support for shareholder precatory proposals under Rule 14a-8 of the Securities Exchange Act, including proposals to destagger the boards.<sup>297</sup> All of these changes go in the direction of enabling increased shareholder empowerment at the expense of weakened board authority, which our empirical and theoretical analysis has showed can produce detrimental effects. In keeping with this analysis's conclusion that efficient governance requires short-term incumbent protection from removal without jeopardizing long-term accountability mechanisms, we suggest that current proxy rules should be amended to restrict increased shareholder activism to the long term. This means, in practice, that the above shareholders proposals should be banned

---

<sup>295</sup> See Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, sec. 951, § 14A(a)(1), 124 Stat. 1376, 1899 (2010) (codified as amended at 15 U.S.C. § 78n-1).

<sup>296</sup> Bebchuk, *supra* note 14, at 1667.

<sup>297</sup> See Kahan & Rock, *supra* note 292, at 1014. Under Rule 14a-8, shareholders can use precatory proposals to request the board of directors to take a certain action without mandating the action. See 17 C.F.R. § 240.14a-8 (2015).

for the first three years after the inception of a new director's tenure for two reasons. First, a three-year term is the standard for directors serving on a staggered board,<sup>298</sup> the adoption of which our empirical results (consistent with the Cremers–Sepe study) show to be associated with an increase in firm value.<sup>299</sup> Second, considering that the average CEO's tenure is seven years,<sup>300</sup> identifying a short-term horizon of less than three years seems reasonable.

This Article's evidence similarly exposes recent changes enabling majority voting in the election of directors as potentially detrimental. In recent years, majority voting has emerged as the most potent weapon in the new arsenal of shareholders' governance levers, with activist shareholders increasingly threatening to engage in withholding campaigns against incumbents to obtain desired governance changes—including the removal of bilateral protection arrangements.<sup>301</sup> This weakens the commitment value of such arrangements, as what makes a commitment credible is the level of difficulty encountered in attempting to renege on the commitment *ex post*.<sup>302</sup> Accordingly, our analysis raises the question of whether majority voting should be repealed from state laws governing the election of directors.

Say-on-pay shareholder votes, instead, are a potentially beneficial reform, as they increase the scope for constructive dialectical confrontation between boards and shareholders. However, the implementation of this instrument raises concerns under the analysis developed by this Article. The Dodd–Frank Act itself does not specify a default rule for the frequency of say-on-pay votes, delegating regulation of the matter to the SEC. Regulation under the SEC, on the one hand, provides that “a say-on-pay vote is required at least once every three calendar years.”<sup>303</sup> On the other, however, it provides that, unless a majority of a company's votes are cast in favor of having biennial or triennial say-on-pay votes, companies cannot

---

<sup>298</sup> See Koppes et al., *supra* note 141, at 1029 & n.21.

<sup>299</sup> See *supra* Table 2.

<sup>300</sup> See Steven N. Kaplan & Bernadette A. Minton, *How Has CEO Turnover Changed?*, 12 INT'L REV. FIN. 57, 58 (2012) (documenting that, from 1992 to 2007, for a sample of large U.S. companies, the average CEO turnover was about seven years).

<sup>301</sup> See Cremers & Sepe, *supra* note 18, at 137–38; Leo E. Strine, Jr., *Toward Common Sense and Common Ground? Reflections on the Shared Interests of Managers and Labor in a More Rational System of Corporate Governance*, 33 J. CORP. L. 1, 8–9, 11–12 (2007).

<sup>302</sup> See Kahan & Rock, *supra* note 199, at 517.

<sup>303</sup> Shareholder Approval of Executive Compensation and Golden Parachute Compensation, 76 Fed. Reg. 6010, 6013 (Feb. 2, 2011).

exclude subsequent shareholder proposals for annual votes.<sup>304</sup> Although concededly less than clear, these combined provisions have been commonly interpreted as meaning that, unless another choice is made, companies must give shareholders a subsequent vote on the prospect of having a say-on-pay vote each year.<sup>305</sup> This raises concerns because it transforms say-on-pay votes into an additional bargaining lever that shareholders can exploit to exercise counterproductive short-term pressure on boards. Accordingly, we suggest that the SEC regulation should be amended to establish a mandatory triennial rule for the frequency of say-on-pay votes.

Conversely, our analysis suggests that the use of unilateral protection arrangements, such as poison pills and golden parachutes, should be limited in time. The reason is straightforward. As repeated throughout this Article, it is possible that prices in the short term do not fully capture the implications of directorial decisions. In the long term, however, the size of directorial and managerial private information tends to decrease. Accordingly, unilateral protection arrangements may add needed short-term protection to directors and managers pursuing long-term projects. However, in the long run, when those projects materialize, there is no economic rationale to continue to protect firm insiders from shareholder discipline.<sup>306</sup>

Of course, we are aware of the practical difficulties that each of these outlined proposals is likely to encounter in the current political environment. Nonetheless, the first step toward attempting future reform intervention necessarily involves reeducating regulators about the considerations that better serve the interests of shareholders and society as a whole. The framework of analysis offered in this Article, and the conclusion it achieves, should hopefully prove useful to that end, providing policymakers with tangible reasons for reconsidering the current direction of corporate governance policies.

---

<sup>304</sup> *Id.* at 6020.

<sup>305</sup> While annual say-on-pay votes seem to have become, in practice, the default, the SEC's wording is puzzling. On the one hand, the SEC regulation seems to specify a three-year default when it comes to a company's obligation to hold say-on-pay votes; on the other, it grants shareholders a default right to demand say-on-pay votes annually. *See* 17 C.F.R. § 240.14a-21 (2015). In other words, there would seem to exist an inconsistency between the default duty of corporations and the default right of shareholders concerning say-on-pay votes.

<sup>306</sup> We observe that while proxy advisory firms remain strongly opposed to bilateral protection arrangements, our proposal is consistent with their most recent guidelines on poison pills. Indeed, these firms do not oppose the adoption of a poison pill as long as the pill expires within a term of twelve months or less and is adopted in response to a specific threat. *See, e.g.*, ISS GUIDELINES, *supra* note 285, at 11.

## CONCLUSION

The case for shareholder empowerment rests on a very simple proposition: since maximizing shareholder wealth is the best means to achieve overall wealth maximization, shareholders necessarily emerge as the party best placed to provide governance inputs that pursue that end. As a corollary of this proposition, limiting shareholders' ability to provide governance inputs—by removing incumbents from the “hard” judgment of the market—impairs the pursuit of shareholder wealth maximization. In support of this theoretical approach, shareholder advocates have used governance indices to document the value-increasing effect of shareholder empowerment and the correspondingly value-decreasing effect of incumbent protection from removal.

Empowered by the seemingly objective evidence obtained for governance indices, shareholder advocates have been very successful in advancing the case for stronger shareholder rights in the past two decades. On the other hand, expert lawyers and academics supporting the case for the traditional board-centric model of the corporation have been painted into a corner—being accused by shareholder advocates of defending claims unsupported by “the existing theoretical understanding and the available empirical evidence.”<sup>307</sup>

This Article shows, theoretically and empirically, that it is time to halt the shareholder empowerment crusade. It does so by examining over thirty years of corporate governance choices (from 1978 to 2008), demonstrating that such a crusade hurts, rather than benefits, U.S. shareholders by placing excessive reliance on market efficiency and jeopardizing the organizational principles that have historically contributed to the success of U.S. corporations. Those principles emphasize the authority of boards of directors over shareholders as a response to market imperfections.<sup>308</sup> Indeed, when the potential for asset-pricing inefficiency is fully considered, enhanced board authority emerges as a necessary response to the inability of shareholders vested with strong exit rights to credibly commit to long-term value creation.

The proposition—defended by those who constructed prior governance and commercial indices—that incumbent protection from removal is uniformly detrimental to shareholder interests is thus both

---

<sup>307</sup> Bebchuk, *supra* note 14, at 1644; *see also id.* at 1687 (arguing that the “existing theoretical learning and the available empirical evidence” provide support that board-centric governance measures “produce long-term costs that exceed their long-term benefits”).

<sup>308</sup> *See* Cremers & Sepe, *supra* note 18, at 142–43.

theoretically and empirically wanting. As shown by this Article's reexamination of the E-Index over a much longer period—and further examination of each of the key provisions—bilateral protection arrangements that protect incumbents from short-term removal with the agreement of shareholders *are not* a reflection of managerial moral hazard. Rather, they are a means to re-empower U.S. boards with the authority to commit shareholders to long-term value creation. At the same time, that protection does not jeopardize market-based accountability mechanisms because it does not prevent shareholders from exercising their disciplining function in the long term. Hence, a republican corporate model advances both shareholder *and* societal interests.

This conclusion calls for reform intervention directed at rolling back the gains made by shareholder advocates, both in the real corporate world and among policymakers. To that end, both commercial governance ratings supporting the case for stronger shareholder rights, as well as shareholder-friendly changes that have occurred in the legal landscape, should be put under intense scrutiny.

Along the same lines, future empirical research examining the relationship between governance and performance should abandon the indiscriminate approach of the past. Ironically, that same criticism provided the motivation for the construction of the E-Index.<sup>309</sup> Our analysis, however, has shown that avoiding indiscriminate approaches not only requires identifying “the key provisions that matter,”<sup>310</sup> but also correctly understanding *why* those provisions matter.

---

<sup>309</sup> See Bebchuk et al., *supra* note 12, at 787, 823.

<sup>310</sup> See *id.* at 824.

## APPENDIX

## APPENDIX TABLE A†

**Dependent Variables:**


---

<i>Q</i>	Tobin's Q, defined as the Market value of assets (i.e., Total Assets – Book Equity + Market Equity) divided by the book value of assets. Calculation follows Fama and French (1992). <sup>311</sup> Source of data is the Compustat annual data file.
----------	---

**Independent and Interacted Variables:****Governance Indices and Their Constituent Provisions**


---

<i>E-Index</i>	Sum of six governance provision indicators in the corporate charter or bylaws introduced by Bebchuk, Cohen, and Ferrell (2009): <i>Staggered Board</i> + <i>Poison Pill</i> + <i>SM Charter</i> + <i>SM Bylaws</i> + <i>SM Merger</i> + <i>Parachutes</i> . <sup>312</sup>
<i>I-Index</i>	Incumbent index, which is the sum of three governance provision indicators in the corporate charter or bylaws: <i>Poison Pill</i> + <i>SM Bylaws</i> + <i>Parachutes</i> .
<i>C-Index</i>	Commitment index, which is the sum of three governance provision indicators in the corporate charter or bylaws: <i>Staggered Board</i> + <i>SM Charter</i> + <i>SM Merger</i> .
<i>Staggered Board</i>	Indicator variable equal to one (zero otherwise) if the board is staggered. Data is obtained from Cremers et al. (2016). <sup>313</sup>
<i>Poison Pill</i>	Indicator variables equal to one (zero otherwise) if the firm has a poison pill in place, under which shareholders are typically issued rights to purchase stock in the company (or in the acquiring company) at a steep discount if a hostile

---

<sup>311</sup> Fama & French, *supra* note 157.<sup>312</sup> Bebchuk et al., *supra* note 12.<sup>313</sup> Cremers et al., *supra* note 117.

## NORTHWESTERN UNIVERSITY LAW REVIEW

bidder acquires a certain percentage of outstanding shares, where the rights of the hostile bidder are void.

*SM Charter* Indicator variables equal to one (zero otherwise) if the firm has adopted a charter amendment that restricts shareholders from amending the corporate charter. A typical restriction requires a supermajority shareholder vote.

*SM Bylaws* Indicator variables equal to one (zero otherwise) if the firm has adopted limits or prohibitions on the rights of shareholders to amend the corporate bylaws. A typical restriction requires a supermajority vote.

*SM Merger* Indicator variables equal to one (zero otherwise) if the firm has established shareholder vote requirements that are higher than the minimum levels set by the relevant state laws to approve a merger or other business combination, which typically require a simple majority for approval. A typical higher requirement is 67%, 75%, or 80% of votes, but includes firms incorporated in a state with a control share acquisition statute that did not opt out of those.

*Parachutes* Indicator variables equal to one (zero otherwise) if the firm has a golden parachute in place, which is a severance agreement providing cash, noncash benefits, or both, to senior executives if specific events occur after a change in control of the company. Events triggering payments include termination, demotion, or resignation of these executives within some specified period after the change of corporate control.

### **Standard Controls**

*Assets* Natural logarithm of the book value of total assets.

*Delaware Incorporation* Indicator variable if the company is incorporated in Delaware.

*ROA* EBITDA / Total Assets.

*CAPX* Capital Expenditures / Total Assets.



<i>R&amp;D</i>	R&D Expenditures / Sales.
<b>Interacted Variables</b>	
<i>Large Customer</i>	Indicator variable set equal to one if the firm has at least one customer accounting for 10% or more of its sales, from Compustat Segment data.
<i>Labor Productivity</i>	Industry-level measure of the marginal product of labor, from the U.S. Bureau of Labor Statistics (using the four digit SIC code).
<i>Industry M&amp;A Volume</i>	The ratio of mergers and acquisitions' dollar volume in SDC to the total market capitalization from CRSP for a calendar year, as per a given Fama-French 49 industry. The CRSP annual industry market capitalization is for ordinary stocks only and excludes ADRs and REITs. If no M&A activity per given industry-year is reported in SDC, we assume it to be zero. We include transactions where buyer achieves control of the target.
<i>Z-Score</i>	Proxy for the risk of bankruptcy as proposed by Altman (1968). <sup>314</sup> The Z-Score is calculated as follows: $Z = 1.2 \times T1 + 1.4 \times T2 + 3.3 \times T3 + 0.6 \times T4 + 0.99 \times T5$ . Here, T1 = Working Capital / Total Assets, a measure of the liquid assets in relation to the size of the company; T2 = Retained Earnings / Total Assets, a measure of profitability that reflects the company's historical earning power; T3 = Earnings Before Interest and Taxes / Total Assets, a measure of current operating efficiency apart from tax and leveraging factors; T4 = Market Value of Equity / Book Value of Total Liabilities, a proxy of the market's perception of the efficient use of the firm's assets; T5 = Sales / Total Assets, a measure of total asset turnover.

---

† Appendix Table A presents brief definitions of the main variables that appear in the analysis. All continuous variables are winsorized at one percent in both tails.

---

<sup>314</sup> Altman, *supra* note 242.

NORTHWESTERN UNIVERSITY LAW REVIEW

APPENDIX TABLE B: DESCRIPTIVE STATISTICS FOR MAIN VARIABLES<sup>†</sup>

<b>Dependent Variables:</b>	<b>Mean</b>	<b>Median</b>	<b>St. Dev.</b>	<b>Min.</b>	<b>Max.</b>	<b>Obs.</b>
<i>Q</i>	1.69	1.39	0.92	0.72	4.66	21,414
<i>Z-Score</i>	4.13	3.55	2.44	0.87	10.31	18,894
<b>Independent Variables:</b>						
<i>E-Index</i>	2.18	2.00	1.37	0	6	21,414
<i>I-Index</i>	0.57	1.00	0.49	0	1	21,414
<i>C-Index</i>	0.50	0.00	0.50	0	1	21,414
<i>Staggered Board</i>	0.03	0.00	0.16	0	1	21,414
<i>Poison Pill</i>	0.17	0.00	0.38	0	1	21,414
<i>SM Charter</i>	0.34	0.00	0.48	0	1	21,414
<i>SM Bylaws</i>	0.56	1.00	0.50	0	1	21,414
<i>SM Merger</i>	0.94	1.00	0.78	0	3	21,414
<i>Parachutes</i>	1.24	1.00	0.93	0	3	21,414
<i>Assets</i>	7.24	7.08	1.52	4.55	11.05	21,414
<i>Delaware Incorporation</i>	0.59	1.00	0.49	0	1	21,414
<i>ROA</i>	0.14	0.14	0.08	-0.05	0.32	21,414
<i>CAPX</i>	0.059	0.047	0.046	0	0.20	21,414
<i>R&amp;D</i>	0.033	0.002	0.060	0	0.23	21,414
<i>Large Customer</i>	0.032	0.013	0.075	0	1.17	21,414
<i>Labor Productivity</i>	1.36	1.04	0.70	0.29	3.67	18,414
<i>Industry M&amp;A Volume</i>	0.28	0.00	0.45	0	1	21,414

<sup>†</sup> Appendix Table B presents sample descriptive statistics for the main dependent and independent variables, as well as the interacted variables, for the main sample for which all provisions of the E-Index are available.

APPENDIX TABLE C: C-INDEX AND I-INDEX PROVISIONS: TIME-SERIES ANALYSIS<sup>†</sup>

<i>Dependent Variable: Q</i>						
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Independent Variables</i>						
<i>Staggered Board</i>	0.102**	0.104**	0.107**			
	(2.45)	(2.30)	(2.32)			
<i>SM Charter</i>	0.156*		0.141			
	(1.84)		(1.54)			
<i>SM Charter x</i>	-0.108		-0.0957			
<i>Staggered Board</i>	(-1.24)		(-1.02)			
<i>SM Merger</i>		0.0423	0.0217			
		(0.98)	(0.48)			
<i>SM Merger x</i>		-0.0365	-0.0205			
<i>Staggered Board</i>		(-0.71)	(-0.38)			
<i>Poison Pill</i>				-0.0186	-0.0617*	-0.0583
				(-0.69)	(-1.90)	(-1.64)
<i>SM Bylaw</i>				0.00552		0.00722
				(0.13)		(0.17)
<i>SM Bylaw x</i>				-0.0842*		-0.0858**
<i>Poison Pill</i>				(-1.93)		(-1.98)
<i>Parachutes</i>					-0.0731***	-0.0924***
					(-2.97)	(-3.36)
<i>Parachutes x</i>					0.0586*	0.0755**
<i>Poison Pill</i>					(1.74)	(2.13)
<b>Fixed Effects:</b>						
	Year + Firm					
N	21,455	21,840	21,438	21,555	24,348	21,555
R-sq	0.743	0.744	0.743	0.743	0.740	0.743

<sup>†</sup> In this Table, we present the time-series association between firm value and the level of the three constituent governance provisions in the C-Index in Columns (1)–(3)—namely *Staggered Board*, *SM Charter*, and *SM Merger*—and the three constituent governance provisions in the I-Index in Columns (4)–(6)—namely *Poison Pill*, *SM Bylaw*, and *Parachutes*—using pooled panel regressions of *Q* on the governance index or its provision(s) with year and firm fixed effects plus a set of standard controls: *Assets*, *ROA*, *CAPX*, *R&D*, and *Industry M&A Volume*. In Columns (1) and (3), we also include the interaction between *Staggered Board* and *SM Charter*, in Columns (2) and (3) the interaction between *Staggered Board* and *SM Merger*, in Columns (4) and (6) the interaction between *Poison Pill* and *SM Bylaw*, and, finally, in Columns (5) and (6) the interaction between *Poison Pill* and *Parachutes*. All columns use the full time period 1978–2008. Coefficients on standard controls are not shown to save space. Variables are defined in Appendix Table A. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by \*\*\*, \*\*, and \*, respectively. We provide the t-statistics below each regression coefficient based on robust standard errors that are clustered by firm.

NORTHWESTERN UNIVERSITY LAW REVIEW

APPENDIX TABLE D: BANKRUPTCY RISK AND GOVERNANCE INDICES<sup>†</sup>

<i>Dependent Variable: Z-Score</i>				
	(1)	(2)	(3)	(4)
<b><i>Independent Variables</i></b>				
<i>E-Index</i>	-0.0935*** (-2.71)			
<i>C-Index</i>		0.115* (1.91)		0.161*** (2.65)
<i>I-Index</i>			-0.197*** (-4.46)	-0.217*** (-4.81)
<b>Fixed Effects:</b>		Year + Firm		
N	19,827	19,851	19,962	19,827
R-sq	0.731	0.730	0.732	0.732

<sup>†</sup> In this Table, we present the time-series association between *Z-Score*, a proxy of bankruptcy risk, and three governance indices (the *E-Index*, *C-Index*, and *I-Index*) using pooled panel regressions of *Z-Score* with year and firm fixed effects plus a set of controls: *Assets*, *CAPX*, *R&D*, and *Industry M&A Volume*. All columns use the full time period 1978–2008. Coefficients on standard controls are not shown to save space. Variables are defined in Appendix Table A. Statistical significance of the coefficients is indicated at the 1%, 5%, and 10% levels by \*\*\*, \*\*, and \*, respectively, based on robust standard errors that are clustered by firm. We provide the t-statistics below each regression coefficient based on robust standard errors that are clustered by firm.