Synthetic Governance

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Synthetic Governance

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Abstract

Scholars, practitioners and policymakers continue to debate what constitutes “good” corporate governance. Academic efforts to evaluate the effect of governance provisions such as dual class voting structures, staggered boards of directors and separating the positions of CEO and Chairman of the Board, have produced inconsistent or inconclusive results. The consequence is that the debate over corporate governance is increasingly political and discordant. We offer a way to address this debate. The rise of index-based investing provides a market-based alternative to governance regulation. Through the creation of bespoke governance index funds, asset managers can offer investors the opportunity to choose an index that corresponds to their governance preferences. We term this approach synthetic governance. At the same time, synthetic governance offers a new tool to collect evidence on the economic impact of corporate governance by providing a market-based tool for evaluating the relationship between corporate governance and stock returns. We illustrate the potential of synthetic governance with the creation of a new governance-based index, the Dual Index, which selects portfolio companies on the basis of a dual class voting structure. We compare the performance of the Dual Index to various benchmarks and demonstrate the potential, through governance-based indexing, for investors to realize superior returns. We further modify the Dual Index by implementing synthetic sunsets to highlight the value creation of dual-class companies in their early years and provide evidence on the appropriate length of a time-based sunset provision. Finally, we expand our analysis of synthetic governance with a second index – the Split Index – which tests the effect of separating the positions of CEO and Chairman of the Board. We conclude that synthetic governance offers a meaningful way for investors and issuers to more economically adopt and invest in governance provisions. We thus provide a way out of the corporate current war over what exactly constitutes “good” governance.

Keywords: Law and economics, corporate governance, capital markets, securities regulation, mutual funds, dual-class stock, shareholder voting, investment choices, asset management, index funds, split board chair and CEO

JEL Classifications: G11, G32, G38, K22

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SYNTHETIC GOVERNANCE

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ABSTRACT

Scholars, practitioners and policymakers continue to debate what constitutes “good” corporate governance. Academic efforts to evaluate the effect of governance provisions such as dual class voting structures, staggered boards of directors and separating the positions of CEO and Chairman of the Board, have produced inconsistent or inconclusive results. The consequence is that the debate over corporate governance is increasingly political and discordant.

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INTRODUCTION

War has broken out over public firm corporate governance. In one corner, big institutional investors urge all companies to adopt “best practices” for corporate governance including one share/one vote, annual election of directors, independent board chairs, majority voting for director elections and a host of other similar provisions.\(^1\) In the other corner are the firms themselves, which advocate for firm-specific governance structures tailored to each firm’s idiosyncratic needs and characteristics.\(^2\) A high-profile example is the debate over dual (or multi) class stock.\(^3\) In recent years, a substantial percentage of big technology companies have gone public with dual and tri-class voting structures, decisions that have enraged the disenfranchised institutional investors.\(^4\) In turn, institutional investors have sought the support of regulators, exchanges and index providers in an effort to preclude the use of dual class.\(^5\) The war has spread to new terrain recently as index providers have sided with the institutional investors, announcing changes to index inclusion requirements to exclude newly-listed dual and tri-class firms.\(^6\)

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2. See Martin Lipton, One Size Does Not Fit All, Harvard Law School Forum on Corporate Governance, Oct. 16, 2019, available at https://corpgov.law.harvard.edu/2019/10/16/one-size-does-not-fit-all/ (arguing that a new paper supports “the ringing truth of the oft heard ‘one size doesn’t fit all’ criticism of the stylized corporate governance principles promulgated by organizations like Institutional Shareholder Services, Glass Lewis, Council of Institutional Investors and many major institutional investors.”)
5. See Dual-Class Stock, COUNCIL OF INSTITUTIONAL INV’RS, https://www.cii.org/dualclass_stock [https://perma.cc/XRJ4-S6R5] (last visited Apr. 10, 2019) (“CII’s policies endorse the principle of ‘one share, one vote’: every share of a public company’s common stock should have equal voting rights.”).
The fundamental struggle between these capital markets actors is over the balance of power in today’s publicly-traded firm. But it is also about something more directly relevant to investors – the economic value of corporate governance measures. More specifically, the fight over dual-class stock and other governance provisions raises basic issues of how to determine whether corporate governance provisions create economic value. To date, empirical studies are mixed – some finding value in specific corporate provisions, others finding no or negative value. The takeaways from these studies are similarly mixed. Some claim empirical support for pressuring firms to adopt best practices of corporate governance in the name of increasing firm value. Some challenge the one-size-fits-all approach and argue that the economic impact of governance provisions varies according to the characteristics of individual firms. Still others are skeptical about the entire debate and posit that corporate governance is trivial.

In light of the conflicting evidence with respect to some measures of corporate governance, much of the debate over corporate governance measures has become policy oriented – based on idiosyncratic preferences of capital markets actors and policymakers. Thus, for example, provisions that increase the power of shareholders relative to managers are defended in terms of democratic principles and accountability. With this development, the policy approach to certain provisions has become even more fractured. The debate over dual-class stock is again emblematic, as reflected, for example, in a former SEC Commissioner’s statement that “asking investors to put eternal trust in corporate royalty is antithetical to our values as Americans.”

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Similarly, the absence in many cases of dispositive empirical evidence concerning economic value has led market participants, who may be wary of outright bans on controversial governance provisions, to advocate hybrid positions. Thus, although the debate over dual-class stock was initially about whether it should be permitted at all, the battle has subsequently shifted to whether dual-class stock should have mandatory sunset provisions or be allowed to last in some measure of perpetuity.\textsuperscript{13}

We find this debate over corporate governance puzzling. While we acknowledge that the empirical evidence is in some cases mixed or non-definitive, market participants have the ability to allocate their investments on the basis of corporate governance. More specifically, if corporate governance provisions have economic value, one would expect a market to develop in mechanisms that facilitate investing on the basis of governance. Investors should prefer to invest in companies which have better governance, and companies should respond to their desires by structuring governance to attract capital.\textsuperscript{14}

We recognize, of course, that the economic reality may be cluttered by market imperfections. These include the possibility that the IPO market may not price governance mechanisms properly\textsuperscript{15} as well as the risk that institutional investors may object to governance provisions for non-economic reasons or as the result of their internal agency costs.\textsuperscript{16} But still, one would expect that there would be some indicia of market forces at work on this issue.

This article introduces an alternative to policy debates or academic empirical studies – a market-based mechanism for evaluating the relationship between corporate governance and economic value. We argue that advances in the structure and scope of our capital markets now allow for investors to select into investment products that implement governance choices. More specifically, we argue that investors can use index funds to structure their investment decisions based on their assessment as to which corporate governance structures which

\textsuperscript{13} See Fisch & Solomon, \textit{supra} note 3.

\textsuperscript{14} Perhaps the most prominent advocate of this view are Frank Easterbrook and Daniel Fischel. Frank H. Easterbrook & Daniel R. Fischel., \textit{The Economic Structure of Corporate Law} 31 (1991) (“corporate governance devices that have survived in many firms for extended periods are particularly unlikely candidates for challenge as mistakes.”).


really can (and cannot) create economic value. We term this approach synthetic governance.

In Part I of this article, we explore the debate over governance mechanisms. We then delineate what we see as the crux of this debate: a struggle over who exercises corporate decision-making power. More specifically, we examine the incentives and roles of the various players in the corporate governance debate. We also analyze the tension between the one-size-fits-all governance rules advocated by institutional investors and the increasing use by most public firms of an idiosyncratic model. We conclude by examining the corporate governance provisions themselves and the empirical literature seeking to assess the relationship between corporate governance and economic value.

Part II focuses on a specific and highly-controversial governance mechanism—dual-class stock. We describe the rise of dual-class stock, the push-back by institutional investors and the developing debate over sunset provisions. We also note that dual class presents one of the most compelling illustrations of the conflict between theory and practice. Although policymakers and academicians historically identified dual class as one of the most pernicious tools for limiting management accountability to shareholders, recent years have seen increasing use by new IPO companies of dual class structures. We also identify regulatory and quasi-regulatory responses to the use of dual class, including solutions considered by governmental agencies, index fund providers and stock exchanges.

In Part III we introduce synthetic governance. We first explain the role and growing importance of index investing in allocating investment dollars. Although index investing is commonly understood as a strategy for investing in the broad market without regard to firm-specific characteristics such as governance, index investing can be used to implement any rules-based approach to investment selection and portfolio composition. As a result, index

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17 Index funds do not make information-based trading decisions and instead hold securities based on their inclusion in a designated index. See Fisch et al., supra note 1 at 19 (describing index investing); Andrew W. Lo, What Is an Index?, 42 J. PORTFOLIO MGMT. 21, 21-22 (2016) (explaining that the critical characteristics of an index are that it be “transparent, investable, and systematic”). We use the term index fund here to include both indexed mutual funds and exchange-traded-funds (ETFs). ETFs are publicly traded on the secondary market rather than purchased from or sold to the fund sponsor. Fisch, et al., supra note 1, at 19 n. 4. The underlying index may be used by a broad range of mutual funds or a “bespoke” index created for a specific mutual fund sponsor.

18 See supra note 5.

19 See Andrew W. Lo, What is an Index?, 42 J. PORT. MGMT. 21, 25 (2016) (explaining that an index must be transparent, investible and systematic, “meaning that the index’s construction must be rules-based and not dependent on any discretion or human judgment.”). One such rules-based approach is investing on the basis of environmental,
technology enables investors to select into or out of preferred governance mechanisms. Although the large asset management firms do not currently appear to offer investors index funds that invest on the basis of governance provisions, such indexes could allow investors to exclude firms that incorporate value-decreasing governance provisions without sacrificing the low cost and diversification afforded by an index strategy.  

Notably, synthetic governance allows investors to make governance-based investment decisions on an efficient basis, without limiting the governance choices of individual firms. For example, an investor may invest in a mutual fund based on an index of S&P 500 firms that excludes dual-class stocks. Index fund strategies can also be tailored more precisely. So, for example, rather than excluding all dual-class firms from its portfolio, a fund could disinvest from companies with dual-class stock if that the dual class does not sunset after a pre-specified period of time, creating, in effect, a synthetic sunset.

We highlight three potential benefits to synthetic governance. First, it provides a market-based mechanism to test the economic value of controversial governance provisions. If critics of such governance provisions are correct, governance-based index funds should outperform their broad-based competitors. Second, synthetic governance may lead to more efficient allocation of capital by drawing inflows into funds that properly evaluate the economic value of governance. Third, synthetic governance provides a mechanism to enhance management accountability by providing passive investors a mechanism for subjecting the governance choices of their portfolio companies to capital market discipline. There are also systemic effects – if bespoke governance indexes are successful in attracting investor assets, firms may adopt specific governance practices to qualify for inclusion.

In Part IV we provide a practical illustration of our theory of synthetic governance by constructing and examining a novel bespoke governance index, the Dual Index. The Dual Index responds to the debate over dual-class voting by social and governance (ESG) considerations. ESG funds enable investors to engage in socially responsible investing, typically by excluding companies based on characteristics such as the manufacture of weapons or their reliance on fossil fuels. Investment flows into ESG index funds and ETFs have grown substantially. See, e.g., Mitch Goldberg, ESG index funds are hot. That may be a risky thing for investors, CNBC.COM, Nov. 17, 2019, https://www.cnbc.com/2019/11/17/esg-index-funds-are-hot-that-may-be-a-risky-thing-for-investors.html (describing growth of ESG index funds and identifying potential risks).

20 Actively-managed funds can take governance factors into account, although the degree to which they do so is unclear, in part because actively-managed investment strategies are proprietary.

21 We use the term “bespoke index” to denote an index that uses a specialized investment strategy. See Adriana Z. Robertson, Passive in Name Only: Delegated Management and ‘Index’ Investing, 36 YALE J. REG. 795, 821 (2019) (explaining the concept of a bespoke index).
creating and evaluating the performance of an index of dual-class companies. The Dual Index further provides a tool for implementing mandatory sunset provisions for dual-class voting structures synthetically by dropping companies from the index if they fail to eliminate that dual-class structure after a pre-specified number of years following their IPO. In other words, the Dual Index imposes a synthetic sunset for dual-class companies.

We examine the performance of this Index over a period of time. We find that over a back-testing period from June 2009 to December 2019 the Dual Index earned an annual return of 19.23% with standard deviation of 14.39%, while the market index earned an annual return of 14.98% with standard deviation of 12.98%. The Dual Index performance corresponds to a monthly multi-factor alpha of 31 basis points.\(^2\) We modify the Dual Index by implementing synthetic sunsets to provide evidence on the appropriate length of a time-based sunset provision. Our results highlight that value creation in the Dual Index occurs to a greater extent in the years after the firm’s IPO. We also expand our analysis of synthetic governance with a second index – the Split Index – which tests the effect of separating the positions of CEO and Chairman of the Board. We find that the Split Index outperforms the market as well, further supporting our thesis that synthetic governance can be used to generate excess returns.\(^\) .

Our case study highlights that the choice between private ordering and public intervention has historically been artificially constrained. The new technology of ETFs and indexes allows investors to create their own bespoke indexes which reflect their governance preferences. Moreover, these investment choices highlight the economic value of governance as it fits within each investor’s lens, further focusing the capital markets. Our example of the Dual Index illustrates the wider potential value of bespoke portfolios to enable investors to incorporate governance attributes systematically into their investment decisions. Ultimately, synthetic governance offers a new mechanism to mediate the ongoing struggles between institutional investors and publicly traded firms over the appropriate mechanisms for corporate governance and enables a market-based resolution of the corporate governance wars.

I. The Debate over Corporate Governance

Corporate governance is generally understood as the provisions within a corporation that enhance management accountability to shareholders and reduce the potential for managerial agency costs.\(^3\) Corporate governance (as opposed

\(^2\) See infra notes [\-\-\-] and accompanying text.
\(^3\) See, e.g., Andrei Shleifer & Robert Vishny, *A Survey of Corporate Governance*, 52 J. FIN. 737, 740-41 (1997) (explaining that corporate governance seeks to answer the question: “How can financiers be sure that, once they sink their funds [into a firm], they get anything but a worthless piece of paper back from the manager?”); Edward C. Rock, *America’s
to corporate law) focuses on the internal structures of the corporation and on firm-specific choices among legally permissible structures. Common elements of corporate governance include the size and composition of the board of directors, shareholder rights and the balance of power between shareholders and directors, and, in some jurisdictions, the role of non-shareholder stakeholders. A variety of specific provisions fall within this general framework such as the proportion of independent directors on the board, whether the board is classified or subject to election annually, and the ability of shareholders to influence board composition and corporate operations through tools such as the power to nominate director candidates, call special meetings and act outside a meeting through written consents.

A. Corporate Governance Theory

The general theoretical foundation of U.S. corporate governance arises from the fundamental agency problem resulting from the separation of ownership and control in the corporation. The directors and officers who have primary authority over operational decisions are not owners and instead run the corporation on the shareholders’ behalf. Governance mechanisms are designed to reduce rent-seeking and opportunism and to ensure alignment between the directors and officers as agents and the shareholders as principals. Governance also plays a role in reducing systemic risk and engendering better, more reasoned decision-making. The initial concept of corporate governance emerged as a tool

Shifting Fascination with Comparative Corporate Governance, 74 Wash. U. L.Q. 367, 389 (1996) (describing corporate governance as “the question of how we can make managers sufficiently accountable so that they will manage the corporation for the shareholders”).

See generally Brian R. Cheffins, The History of Corporate Governance, in The Oxford Handbook of Corporate Governance 46, 47 (Mike Wright, Donald S. Siegel, Kevin Keasey & Igor Filatotchev eds., 2013) (detailing the evolution and usage of the term corporate governance).

For a broad discussion of corporate governance principles and an effort to “identify the key building blocks for a sound corporate governance framework,” see OECD, G20/OECD Principles of Corporate Governance, 7 (2015), http://dx.doi.org/10.1787/9789264236882-en

Id. (discussing these issues and their usage).

See, e.g., Jesse Fried, The Uneasy Case for Favoring Long-Term Shareholders, 124 Yale L.J. 1554, 1624 (2015) (“[S]hareholders' ability to minimize managerial agency costs is one of the most important challenges in the corporate governance of widely held firms”).

See Brian R. Cheffins, Delaware and the Transformation of Corporation Governance, 40 Del. J. Corp. L. 1 (2015) (discussing these and other accepted features of corporate governance as well as their evolving usage).
to limit managerial power, and, the managerial agency problem continues to predominate as the theoretic “driver” of corporate governance.

Within that literature, the question of what constitutes “good corporate governance” is, itself, polarized into two competing camps. Advocates of shareholder democracy support governance mechanisms that increase managerial accountability and characterize mechanisms that insulate management from shareholder interference as entrenchment. Toward that same end, institutional investors, proxy advisory firms, and other participants in corporate governance debates have developed guidelines of corporate governance practices that emphasize shareholder power.

Others take a countervailing view that governance should promote broad managerial authority to set corporate policy and goals. In this scenario, governance mechanisms do not empower shareholders but focus instead on

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30 See Michael Jensen & William Menkling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. FIN. ECON. 305, 357 (1976) (theorizing that controlling agency costs is central to the economics of the firm). We note that corporations with concentrated rather than dispersed ownership are the norm in many non-U.S. jurisdictions. Large shareholders can typically exercise sufficient control to mitigate managerial agency costs but the ability of these shareholders to generate private benefits of control presents an alternative agency problem. See Martin Gelter, The Dark Side of Shareholder Influence: Managerial Autonomy and Stakeholder Orientation in Comparative Corporate Governance, 50 HARV. INT’L L.J. 129 130-31 (2009) (distinguishing the managerial agency problems of the U.S. and U.K. systems from the risk of shareholder self-dealing in Continental European systems characterized by concentrated ownership).
31 See, e.g., Jill E. Fisch & Simone Sepe, Shareholder Collaboration, __ TEX. L. REV. __ (forthcoming 2020) (describing the management-power model and the shareholder-power model). There are other views of corporate governance. The most prominent of the alternative view is that of team production put forth by Margaret Blair and Lynn Stout. Team production theorizes that the corporation should be managed “to maximize the joint welfare of all the firm’s stakeholders - including shareholders, managers, employees, and possibly other groups such as creditors or the local community - who contribute firm-specific resources to corporate production.” Margaret M. Blair & Lynn A. Stout, A Team Production Theory of Corporate Law, 85 VIRGINIA L. REV. 248, 248 (1999).
limiting managerial conflicts of interest and opportunism.\textsuperscript{36} Supporters of this approach tout the advantages to board and managerial discretion and emphasize the potential problems with shareholder empowerment including limited expertise and the risk of shareholder opportunism.\textsuperscript{37}

We note that although traditionally corporate governance has focused on enhancing managerial accountability to shareholders,\textsuperscript{38} recently, a debate has arisen over stakeholder governance – the extent to which corporate governance can or should be used to address non-shareholder, stakeholder interests.\textsuperscript{39} This debate has found traction in arguments that corporations should adopt or modify their purpose to focus on delivering value for all stakeholders rather than only shareholders.\textsuperscript{40} We do not take a view here on this debate, but instead position ourselves within the literature that evaluates the effect of corporate governance on shareholder value.\textsuperscript{41}

B. Corporate Governance Empirical Support


\textsuperscript{37} See, e.g., Stephen M. Bainbridge, \textit{Director Primacy: The Means and Ends of Corporate Governance}, 97 \textit{NW. U.L. Rev.} 547, 605 (2003) (asserting that “the board of directors is not a mere agent of the shareholders, but rather is a sort of Platonic guardian serving as the nexus of the various contracts making up the corporation.”); Leo E. Strine Jr., \textit{Can We Do Better by Ordinary Investors? A Pragmatic Reaction to the Dueling Ideological Mythologists of Corporate Law}, 114 \textit{Colum. L. Rev.} 449, 455 (2014) (describing the view of some commentators that “the best way to ensure that corporations generate wealth for diversified stockholders is to give the managers of corporations a strong hand to take risks and implement business strategies without constant disruption by shifting stock market sentiment.”).

\textsuperscript{38} See Lund & Pollman, supra note 29 (explaining that “shareholder primacy became ingrained in the very notion of ‘mainstream’ corporate governance”).


Although much of the debate over appropriate corporate governance is theoretical, the economic impact of corporate governance is capable of empirical measurement. In this regard legal and academic scholars have attempted to evaluate, through empirical methodologies, the impact of various governance mechanisms both on overall economic performance and on a variety of more specific issues such as a firm’s investment in research and development, the likelihood that the firm will be subject to a government enforcement action, and the relationship between good corporate governance and the likelihood that a firm will be involved in financial fraud or other misconduct.

Similarly, studies have sought both to measure overall governance quality and to analyze the effect of governance quality on firm performance. The two best known studies that attempt to construct a measure of the quality of firm governance are by Gompers, Ishii & Metrick, who created the GIM index, and by Bebchuk, Cohen and Ferrell, who constructed the E-index. The GIM index uses 24 governance provisions relating to “construct a “Governance Index” as a proxy for the balance of power between shareholders and managers. GIM then compare companies that score well on this index in terms of shareholder rights (which they term the Democracy Portfolio) against companies that score poorly (the Dictatorship Portfolio) and find that that Democracy Portfolio outperformed by 8.5 percent per year. As one commentator explains “GIM’s dictatorship-democracy portfolio emerged as the standard metric in recent times for examining the share price impact of good governance.”

47 Gompers et al., supra note 45, at 109.
Bebchuk, Cohen and Ferrell subsequently developed a variation on the GIM index, which they termed the E- (entrenchment) index that contained the six components from the GIM index that, in their view, were most highly associated with managerial entrenchment. BCF found that increases in the E index were negatively correlated with Tobin’s Q.⁴⁹ The BCF index has been highly “influential in shaping how scholars and policymakers evaluate the relative merits of various corporate governance regimes,”⁵⁰ Although scholars have questioned both the methodology and the results of these studies,⁵¹ together the GIM and E-index have spawned a variety of empirical and policy papers arguing that good governance is an important driver of firm economic value.⁵²

C. The Uncertain Effect of Corporate Governance

Despite these two widely-utilized indexes and thousands of other studies examining corporate governance, there is limited consensus on the desirability of many corporate governance provisions.⁵³ There are two significant reasons for this. One is the challenge of establishing causation. Although many studies purport to demonstrate a correlation between governance metrics and economic performance, evidence on causality remains limited. As one commentator explains, “[e]ven those who have written extensively on the correlation of

⁴⁹ Bebchuk, supra note 46, at 784-85. Tobin’s Q has been described as "a standard measure used by financial economists, as a proxy for firm value." Lucian A. Bebchuk, The Case for Increasing Shareholder Power, 118 HARV. L. REV. 833, 900 n.150 (2005).
⁵¹ Professors Bartlett and Partnoy have highlighted the issues of use of Tobin’s q for valuation purposes and its lack of fit in certain circumstances as utilized in the E-Index. Id. at 405-411. Professor Larcker and others have questioned the validity of the underlying data in the index. David F. Larcker, Peter C. Reiss, & Youfei Xiao., Corporate Governance Data and Measures Revisited (November 1, 2015); available at SSRN: https://ssrn.com/abstract=2694802 or http://dx.doi.org/10.2139/ssrn.2694802. The indexes have also been criticized on their endogeneity and omitted variable bias as well as the fact that the components are not generally related to measures which would affect firm value. Michael D. Klausner, Fact and Fiction in Corporate Law and Governance, 65 STANFORD L. REV. 1325 (2013). See also Sanjai Bhagat & Brian Bolton, Corporate governance and firm performance, 14 J. CORP. FIN. 257 (2008).
⁵² See, e.g., Martijn Cremers & Allen Ferrell, Thirty Years of Shareholder Rights and Firm Value, 69 J. FIN. 1167 (2014) (extending the E-Index to an earlier time period); Lawrence D. Brown & Marcus L. Caylor, Corporate Governance and Firm Valuation, 25 J. ACCT. & PUB. POL'Y 409, 428-29 (2006) (building an alternative index which is also found to correlate with firm performance).
⁵³ See Matt Cain, Jill Fisch, Sean Griffith & Steven Davidoff Solomon, How Corporate Governance is Made: The Case of the Golden Leash, 164 U. PENN. L. REV. 649, 657 (2016) (“Corporate governance research has therefore focused on the empirical question of whether and how particular governance terms are priced as a necessary first step in answering whether particular governance provisions are good or bad. Unfortunately, whether and how the market prices corporate governance remains subject to dispute, as a review of the recent literature shows.”)
governance, generally or with respect to specific governance factors, with company performance have largely rejected the existence of a causal connection.54 More specifically, many studies of corporate governance suffer from an endogeneity problem. They cannot separate out whether governance is causing a value increase in the firm or the governance is a proxy for other characteristics which enhance firm value.55 In other words – it may simply be the case that well-managed firms have good corporate governance, and that poorly-managed firms do not.

A second question is the extent to which the effect of a given governance provision is firm-specific. A substantial percentage of corporate governance studies examine the effect of a particular corporate governance provision across all firms, implicitly assuming that the effect of that provision will be the same for the entire market.56 Yet this assumption is problematic. Firms differ substantially along various dimensions, and there are reasons to believe that the effect of specific governance terms may be heterogenous as well. Thus, for example, Martijn Cremer and Simone Sepe found that, when they differentiated among firms, the effect of a classified board was positive for some firms and negative for others.57 Amihud, Schmidt and Solomon take this approach even further and find that the staggered board on average has no effect on firm value and any measurement is also idiosyncratic.58 If the effect of a governance provision differs among firms, then a one-size-fits-all approach, based on distinguishing good governance provisions from bad ones, is likely to be misguided.59 And even if it is not misguided, it speaks against mandating uniform governance rules across companies.60

Thus, in assessing the right governance provisions for a firm, there is still substantial theoretical and empirical uncertainty over governance as a whole and many of the specific provisions that people argue are indicative of “good

54 Kabler, supra note 48, at 122.
55 See Amihud, et al., supra note 9, at 1501-1505 (highlighting this issue in the context of valuing the adoption or removal of staggered board provisions).
56 See inter-alia Bebchuk, supra note 46; Gompers et al., supra note 45.
57 See K.J. Martijn Cremers, Lubomir P. Litov & Simone M. Sepe, Staggered boards and long-term firm value, revisited, 126 J. FIN. ECON. 422, 424 (2017) (“Our results suggest that the role of staggered boards differs across firms in a way that both economic channels could play a role.”)
58 See Amihud et al., supra note 9.
59 See, e.g., E. Norman Veasey & Christine T. Di Guglielmo, What Happened in Delaware Corporate Law and Governance from 1992–2004? A Retrospective on Some Key Developments, 153 U. PA. L. REV. 1399, 1412–13 (2005) (“Life in the boardroom is not black and white; directors and officers make decisions in shades of gray all the time. A “clear” law, in the sense of one that is codified, is simply not realistic.... There can be no viable corporate governance regime that is founded on a “one size fits all” notion.”)
60 See, e.g., Amihud et al., supra note 9 (arguing that empirical findings mitigate that the staggered board is idiosyncratic benefitting some companies and harming others),
governance”. Because of this uncertainty, although there is, in principle, widespread support for good governance, the question of what constitutes good governance remains highly contested. Even governance practices that have such broad-based support that they are embedded in regulatory requirements, such as requiring a majority of independent directors on corporate boards, lack strong empirical evidence tying them to firm economic value. Commentators and practitioners continue to debate the merits of other governance provisions such as staggered boards, dual class shares, and the separation of chairman from CEO. The net result was aptly summed up by Dorothy Lund who observed that “without a consensus about what constitutes good governance, there is reason to believe that the proliferation of an unthinking, one-size-fits-all approach to governance will make many companies worse off.”

II. Dual Class and Sunsets

A. Dual Class Voting Structures

The battle over corporate governance and particular governance structures and provision is perhaps best illustrated by the heated dispute over dual or multi-class voting structures. In a company with dual class stock, all the shares of common stock have equal economic rights, but some shares, termed high-vote shares, have more voting rights than the others, which are termed low-vote shares. The typical ratio is 10 votes to one although in the extreme case, exemplified by Snap, the shares sold to public shareholders have no voting rights at all. Typically founders, and sometimes other early stage investors, hold

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61 See, e.g., Bebchuk, supra note 49 at 833 (“[w]ith respect to many issues in corporate law, deciding which arrangement is optimal is highly contestable”).
62 See Bhagat & Black, supra note 42.
63 See Klausner, supra note 51; Cain et al., supra note 53.
65 See Fisch & Solomon, supra note 3, at 1064 (“Dual class stock refers to a capital structure in which shares of an issuer's common stock with equal economic rights differ with respect to their relative voting power. The common stock in a dual class company is divided into two or more classes, in which the shares with more voting power are typically described as high vote stock, and the shares with less voting power are described as low vote stock.”)
66 See Dual-Class Stock, COUNCIL OF INSTITUTIONAL IN'RS, https://www.cii.org/dualclass_stock [https://perma.cc/XRJ4-S6R5] (last visited Apr. 10, 2019) (“The ratio most frequently employed is 10 votes per superior share to one vote per inferior share.”).
67 See Eleanor Bloxham, Snap Shouldn't Have Been Allowed to Go Public Without Voting Rights, FORTUNE (Mar. 3, 2017), http://fortune.com/2017/03/03/snap-ipo-non-voting-stock/ (explaining that, “[a]t Snap (SNAP), only pre-IPO investors who own private shares will be able to vote on company matters”).
high-vote shares, while low-vote shares are sold to public investors. Dual class stock thus enables a founder to retain control while holding an investment that reflects less than a majority of the firm’s economic value. In some cases the divergence can be stark with the founder or other controllers maintaining control of the company with 10% or less of the economic value.

Dual class voting structures have existed for decades. Ford Motor Company used a dual class structure in its 1956 IPO to maintain control of the company with the Ford family. Historically, a limited number of firms used dual class voting, and those firms tended to be media companies, family businesses and insider-controlled businesses. For example, the New York Times has a dual class structure. The justification for dual class was that it permitted a founding family or other controller to maintain a unique business, such as a newspaper operation, which needed to be isolated from market forces or otherwise run in the interests of stakeholders other than shareholders. While dual class stock may assist firms in meeting these other stakeholder interests, studies suggest that dual

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69 See Fisch & Solomon, supra note 3, at 1065.


72 David J. Berger, Are Dual-Class Companies Harmful to Stockholders? A Preliminary Review of the Evidence, HARV. L. SCH. F. ON CORP. GOV. AND FIN. REG. (Apr. 15, 2018), http://corp.gov.law.harvard.edu/2018/04/15/are-dual-class-companies-harmful-to-stockholders-a-preliminary-review-of-the-evidence/ [https://perma.cc/24VN-9V8Z] (explaining that, although “Dual class companies have existed for nearly a century . . . most dual-class companies were family businesses, media companies seeking to ensure their publications could maintain journalistic editorial independence, or other companies led by a strong group of insiders”).

class structures at these firms were also associated with higher agency costs, limited minority shareholder rights and inferior economic performance. 74

Starting with the Google IPO in 2004, however, the use of dual class voting structures shifted – both increasing in popularity and migrating to the technology sector. 75 A substantial number of technology firms began to go public with dual class structures and, in recent years, approximately 19% of U.S. technology companies have gone public with a dual class structure. 76 Although historically dual class companies have comprised less than 2% of the major stock market indices, they represent roughly 9% by market capitalization. 77 And with the rise of dual class in technology firms, firms in other industries have felt more willing to adopt dual class voting structures. For example, Shake Shack which sells hamburgers has gone public as has Chewy which sells pet goods on-line. 78

The spread of dual class structures beyond a small group of media and family-founded companies created wide-spread shareholder protest. Shareholders have protested dual class on many grounds. First, they complained about the disenfranchisement and the lack of an appropriate voice in the corporate enterprise. 79 Because dual class stock provides control to one or a small group of individuals, ordinary shareholders are unable to elect directors or if things go awry remove directors. Second, the structure of dual class stock creates a potential gap between a controller’s economic interest and his or her voting interest, a gap that Lucian Bebchuk and Kobi Kastiel have termed the “wedge.” 80

75 See Fisch & Solomon, supra note 3, at 1067-70 (detailing the resurgence of dual class stock in technology companies post-Google IPO).
78 See Dual-Class Stock, COUNCIL OR INSTITUTIONAL INV'RS, https://www.cii.org/dualclass_stock [https://perma.cc/XRJ4-S6R5] (last visited Apr. 10, 2019) (“CII’s policies endorse the principle of ‘one share, one vote’; every share of a public company’s common stock should have equal voting rights.”).
This gap creates increased incentives for self-dealing by the controller.81 The theoretical potential for self-dealing finds some real world support. Viacom, for example, was notorious for continuing to pay its controller Sumner Redstone tens of millions of dollars each year despite his incapacitation.82

There are other concerns. As a practical matter, dual class is also one of the most powerful antitakeover devices,83 which has the effect of insulating dual class companies from the discipline of the takeover market.84 Relatedly, dual class stock also insulates management from activist shareholders who might agitate for change at the company.85 Commentators have also raised the idea that it is unfair or undemocratic for some shareholders to have disproportionate voting rights.86 And ultimately, dual class can vest perpetual control in the hands of one person long after that control is appropriate.87

The criticism of dual class structures has grown more strident with the rise of institutional investors and particularly the big three, Blackrock, Vanguard and State Street. The top 10 Institutional investors now control greater than 50% of most S&P 500 companies, and the Big Three alone often control 10-25%.88 This permits a small group of institutional investors to exercise vast power in corporate America. Dual class stock tempers the power of these sizable stockholdings, shifting it back to the founder and frustrating the principle of one share/one vote.

81 See id. at 1468-70 (modeling increased potential for self-dealing as the size of the wedge increases).
82 See Bebchuk & Kastiel, supra note 70, at 587-88 (discussing that ninety-three year old Redstone refused to give up control despite “profound physical and mental illness”).
83 Gompers et al., supra note 74 at 1052 (defining dual-class stock as the most extreme example of antitakeover protection).
85 See Kobi Kastiel, Against All Odds: Hedge Fund Activism In Controlled Companies, 2016 COLUMBIA BUS. LAW. REV.
86 See, e.g., Kara M. Stein., Comm’r, Sec. & Exch. Comm’n, Remarks at Stanford University: Mutualism: Reimagining the Role of Shareholders in Modern Corporate Governance (Feb. 13, 2018), https://www.sec.gov/news/speech/speech-stein-021318#_ednref45 (stating that dual class structures are “inherently undemocratic, disconnecting the interests of a company’s controlling shareholders from its other shareholders.”).
87 See Bebchuk & Kastiel, supra note 70.
88 See Lucian Bebchuk* & Scott Hirst, The Specter of the Giant Three, 99 B.U. L. REV. 721, 735 (2019) (“as of 2017 the Big Three held an average combined stake exceeding 20% of S&P 500 companies and 16.5% of Russell 3000 companies.”).
Although concerns about dual class voting structures led a number of stock exchanges around the world to limit their use, most exchanges eliminated these restrictions in order to compete for listings of companies with dual class structures. Many institutional investors have criticized these changes and supported petitions urging the stock exchanges to adopt or reinstate listing limits on companies with dual class structures. The Council of Institutional Investors, for example, explains that “the "one share, one vote" principle has been a core focus for CII since its founding in the 1980s” and has actively campaigned against dual class structures. Efforts by institutional investors also prompted several major index providers to restrict the inclusion of some new dual class firms in 2018. Because inclusion in popular indexes often leads to greater liquidity and lower costs of capital for issuers, the theory of this effort was to create an incentive for issuers to eliminate dual class stock so they could be included in the indexes. Relatedly, the proxy advisory services who advise these institutional shareholders, such as Institutional Shareholder Services (“ISS”), have also opposed dual class structures. ISS has stated that these structures “are more likely to exhibit more problematic corporate governance practices.”

Despite these attacks, a number of companies have held fast in their support of dual class stock. The primary rationale for dual class is that it provides a firm’s founder with the space to implement a long-term vision for the firm while

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90 See https://www.pionline.com/article/20190401/PRINT/190409984/investors-intensify-fight-against-dual-class-shares (describing CII’s petitions to the NYSE and NASDAQ, which was supported by BlackRock and T Rowe Price). The SEC attempted to prohibit the NYSE from amending its listing requirements to permit dual class companies, but its effort was invalidated by the D.C. Circuit Court of Appeals. The Business Roundtable v. SEC, 905 F.2d 406 (D.C. Cir. 1990).

91 Dual-Class Stock, supra note 5.

92 Id.

93 Fisch & Solomon, supra note 3, at 1076.

insulated from short-term market pressure. This view is buttressed by the fact that dual class stock is increasingly utilized by technological companies that have been built by founders. The issuance of dual class thus ensures that the founder can continue to pilot the firm successfully, often in an innovative area without outside interference. As Google founders Sergey Brin and Larry Paige explained, Google’s dual class structure “will make it harder for outside parties to take over or influence Google [and] make it easier for our management team to follow the long term, innovative approach.”

B. Dual Class and Sunsets

The debate over dual class stock has resulted in impasse. To be sure the index providers have taken some steps of limiting these structures, but neither the stock exchanges nor the U.S. government appear willing to step in to prohibit dual class. In the absence of regulation, issuers continue to IPO with dual class voting structures.

As a result of this continued growth of dual class, a second debate has arisen over the duration of a dual class voting structure. More specifically, a number of commentators argue that, if a company decides to go public with a dual class voting structure, that structure should have a “sunset,” meaning that it terminates automatically, typically a designated number of years after the IPO. The justification sunset provisions rests on the argument that, even if dual class provides valuable insulation to founders of newly-public companies, that insulation is most advantageous for early stage firms and likely dissipates over time. Over time, then, the benefits of the dual class structure decline to the point where they are outweighed by the associated agency costs of dual class.

97 Warner Music Group for example recently went public raising $1.925 billion utilizing dual class stock with the high-vote stock having 20 votes per share. See Warner Music Group Registration Statement on Form S-1, dated May 26, 2020, at 15, available at https://www.sec.gov/Archives/edgar/data/1319161/000119312520150678/d833365ds1a.htm ("Upon completion of this offering, we will have two classes of voting common stock, Class A common stock and Class B common stock. Each share of Class A common stock is entitled to one vote per share and each share of Class B common stock is entitled to 20 votes per share.") See also supra note [] and accompanying text (noting that, in 2019, 19% of IPO companies went public with dual class voting structures).
98 See, e.g., Andrew William Winden, Sunrise, Sunset: An Empirical and Theoretical Assessment of Dual-Class Stock Structures, 2018 COLUM. BUS. L. REV. 852, 870 (describing time-based sunsets as “presumably what most institutional investors and proxy advisors are referring to when they insist that dual-class companies must adopt reasonable sunset provisions”).
This and other arguments, including empirical work, has led to calls that dual class firms adopt sunsets provisions. SEC Commissioner Rob Jackson thoughtfully addressed this issue asserting that dual class is “corporate royalty.” SEC Investor Advocate Rick Fleming has termed dual-class shares “a recipe for disaster,” and urged the stock exchanges to require the sunsetting of super-voting rights. To date though, no governmental regulation appears to be imminent.

And not surprisingly, there have been counter-arguments. Two of the co-authors of this paper have questioned the value of time-based sunsets in particular as a response to the dual class controversy in an article entitled The Problem of Sunsets. As we explained, to the extent that dual class stock provides value, time-based sunsets function as an arbitrary ex ante determination of how long that value is likely to persist. Sunsets vary in length from three to twenty years. As we observed in our article the applicable time period associated with existing time-based sunsets appears arbitrary.

In The Problem of Sunsets, we highlighted the potential to refine dual class voting structures with more nuanced sunset provisions in which the termination of dual class voting was tied to factors such as the transfer of high vote shares, the founder’s continued role in the business and size of the gap between founder voting control and ownership. Although time-based sunsets have been the primary focus of institutional investors and commentators, a small number of firms employ what we termed event-based sunsets. In some firms, the dual voting structure terminates if the founder’s ownership level drops below a certain threshold. Others terminate if the controller dies or transfers their shares. A small subset provides for termination upon the incapacity of the controller.

C. Empirical Support for Dual Class

99 Jackson, supra note 12.
101 Fisch & Solomon, supra note 3.
102 Id. at 1080.
103 Id. at 1081 (“More problematic than the variation is the fact that the length of the sunset period appears to be arbitrary and does not seem to correlate with any theory about the length of time necessary for a founder to implement his or her vision.”)
104 Id. at 1086-88.
105 Id. at 1089-91.
106 Id. at 1091. Andrew Winden has the leading article documenting the extent and use of sunset provisions. Winden, supra note 98. Our conclusions in The Problem of Sunsets rested in part on his data analysis.
The debate over dual class thus mimics the debate over other governance mechanisms. Commentators disagree on the theoretical question of whether dual class is value-enhancing and, if so, under what circumstances. As with other corporate governance measures, there is also empirical uncertainty. More specifically, the challenge with dual class voting structures is that the empirical evidence on their economic impact is mixed.

A number of studies have shown that dual class stock enhances agency costs and reduces lower returns.\textsuperscript{107} The challenge is that these were studies of older dual class firms such as the media companies described above.\textsuperscript{108} Newer studies that focus on technology firms have found that, at least in some cases, dual class firms outperform firms with one share/one vote structures.\textsuperscript{109} Studies also provide support for the proposition that the economic value of dual class evaporates over time, although these studies document confounding factors such as a decline in the economic stake and involvement of the founder.\textsuperscript{110} These findings reinforce the notion that dual class allows a founder to focus on the long term, but that this performance dissipates as the founder sells his or her stake or reduces efforts to develop the business.

These studies too are also limited by endogeneity and selection effects. An issuer’s decision to go public with a dual class voting structure may reflect its superior performance which leads shareholders to be willing to invest notwithstanding the firm’s voting structure. In other words, dual class may be a result of the issuer’s high performance rather than the cause of that performance. Moreover, the growth in dual class companies has occurred relatively recently, posing challenges in empirically assessing its long-term effect. It may be that the studies finding impact of dual class are dependent upon an early crop of technology outperformers such as Google.

Thus, the dual class structure like many other governance provisions raises issues with what exactly is the right corporate governance for a firm? Indeed, the questions that dual class raises are particularly stark because despite investor protests, firms continue to go public with dual class voting structures, and investors continue to purchase the stock of dual class firms. At a minimum, this


\textsuperscript{108} Of the best known is a study by Paul Gompers, Joy Ishii and Andrew Metrick that reports a negative relationship between dual class and firm value. Gompers, et al., supra note 74. The study, however, is based on a sample of U.S. firms from 1995 to 2002, prior to the Google IPO. Id.

\textsuperscript{109} See, e.g., Fisch & Solomon, supra note 3 at 1073 (describing empirical studies finding that dual class forms initially outperform firms with one share/one vote structures but that this outperformance dissipates over time).

\textsuperscript{110} Id.
raises the question of whether institutional shareholders actually mean what they assert about dual class or whether their objections are cheap talk based on theoretical principles about shareholder democracy rather than actual investing intent. This question leads us to one possible solution: investor choice through synthetic governance.

III. Synthetic Governance

a. The Rise of Index Investing

As the debate over governance rages in the corporate world, the role of the capital markets in disciplining governance choices has been dramatically reformed by the growth and increasing popularity of index funds. Over the past decade, the percentage of assets invested in the U.S. equity markets through index funds has doubled – from 7% in 2010 to approximately 14% in 2019.111 Because a passive investment strategy is less costly than active stock-picking, index funds typically charge investors lower fees than actively-managed mutual funds.112 The growth in index funds has also led to a concentration in the asset management market.113 The big three – BlackRock, Vanguard and State Street – collectively manage roughly 80% of the index fund market and, as a result of the funds they manage, own roughly 20% of S&P 500 companies.114

Although there are thousands of indexes,115 the vast majority of assets are invested in funds based on wide-known and broad-based market indexes. Adriana Robertson reports that over $1.5 trillion in assets are invested in funds that track the S&P 500, and another almost $800 billion are invested in funds that track the Russell 2000 index.116 Together these indexes account for approximately half the assets invested in index funds.

But while most assets are in large, significant funds there are a number of bespoke indexes. In her study, Robertson found that the median index was

112 See Jill E. Fisch, The Uncertain Stewardship Potential of Index Funds in DIONYSIA KATELOUZOU & DAN W. PUCHNIAK EDS, GLOBAL SHAREHOLDER STEWARDSHIP: COMPLEXITIES, CHALLENGES AND POSSIBILITIES (Cambridge University Press, Forthcoming), available at SSRN: https://ssrn.com/abstract=3525355 (“Because they do not rely on costly firm-specific research, index funds incur lower management costs, and they pass these reduced costs on to mutual fund investors in the form of very low fees”).
113 See Fisch, et al., supra note 1 at 26 (Index fund sponsors “enjoy economies of scale which enable them to manage very large pools of assets at low cost”).
114 See Lim, supra note 111.
116 Id.
tracked by only a single fund. Moreover, she found a total of 193 different indexes that were associated with assets exceeding $1 billion. These indexes are highly divergent including one based on the investing style of T. Boone Pickens, another based on investing in the Nashville area as well as more traditional ETFs like airline industry and currency ETFs. The variety of ETFs and the indexes they track highlight that this is a new form of stock-picking albeit on a more widespread basis. It also illustrates the demand for both market-wide indexes and bespoke investment style indexes and ETFs.

b. The Role of Indexes in Governance

Data is mixed on the effect of the rise in index investing on governance. At a minimum, an index-based investment strategy limits the ability of investors to discipline the portfolio companies through trading decisions. Because index funds are compelled to hold the portfolio companies in the underlying index, they cannot sell companies on the basis of bad governance or invest more in companies with high quality governance. This has led some commentators to express concern that a growth in index investing will undermine the ability of the capital markets to discipline corporate governance through stock prices. Two of us have questioned this concern in other work, noting both that active investors still dominate the market and that only a relatively small number of active traders are necessary for efficient price discovery and market efficiency. Nonetheless, it is a possibility.

In addition, some commentators have argued that index funds lack adequate incentives to monitor their portfolio companies by engaging with management and exercising their voting power in an informed manner. They argue that, because index funds compete primarily on cost, they have no incentive to engage in stewardship. As a result, these commentators predict both that index funds will underinvest in engagement with their portfolio companies and that their voting decisions will be uninformed. At least one commentator, Dorothy Lund,

117 Id. at 813.
118 Id. at 814.
119 See Fisch, et al., supra note 1 at 30 n. 65 (describing the BOON ETF).
120 See generally id.
121 See, e.g., Vladyslav Sushko & Grant Turner, The implications of passive investing for securities Markets, BIS Quarterly Review 113, 121 (March 2018) (“A higher share of passive investors could therefore weaken market discipline and alter the incentives of corporate and sovereign issuers to act in the interest of investors”).
122 Id. at 58-59.
123 See, e.g., Lucian Bebchuk & Scott Hirst, Index Funds and the Future of Corporate Governance: Theory, Evidence, and Policy, 119 Columbia L. Rev. 2029, 2057 (2019) (“Competition with other mutual funds, index funds give index fund managers precisely zero additional incentive to invest in stewardship for any of their portfolio companies.”).
has relied on these propositions to argue that index funds should be prohibited from voting the shares they hold.\textsuperscript{124}

Other scholars argue that index funds have had a positive effect on corporate governance. Ian Appel hypothesizes that index funds are able to use their voting power effectively and has developed empirical evidence supporting this proposition.\textsuperscript{125} He finds that increased ownership by index funds is associated with greater board independence, fewer firm antitakeover defenses, higher profitability and increased firm value.\textsuperscript{126} Other scholars have documented the leadership position of the large index fund sponsors in advocating certain governance reforms such as the removal of staggered boards and poison pills.\textsuperscript{127} We have separately written that large index fund sponsors have significant incentives to exercise their vote and in general minimize systemic risk.\textsuperscript{128}

Because of the concentration of assets held by the large asset managers, institutional index investors have increasing influence on both the operational decisions of their portfolio companies and other market participants such as index providers, stock exchanges and proxy advisors. They participate in institutional investor organizations in which they increasingly articulate what they believe to be best practices for corporate governance and advocate for the widespread adoption of those practices.\textsuperscript{129} Index funds further deploy the “heft” of their substantial holdings to vote in favor of shareholder proposals advocating governance reforms such as the removal of staggered boards or independent board leadership.\textsuperscript{130} Some index funds have extended their attention to address issues such as ESG.\textsuperscript{131}

\textsuperscript{124} See Lund, supra note 64.
\textsuperscript{125} Ian Appel, Research: Index Funds Are Improving Corporate Governance, HARV. BUS. REV. (May 9, 2016), available https://hbr.org/2016/05/research-index-funds-are-improving-corporate-governance
\textsuperscript{126} Id.
\textsuperscript{128} See Fisch et al., supra note 1 at 37-43.
\textsuperscript{129} Id. at 54-55.
\textsuperscript{131} BlackRock’s Larry Fink is perhaps most notably for his public statements urging public company CEOs to focus more on ESG issues. See Larry Fink Letter, https://www.blackrock.com/americas-offshore/2019-larry-fink-ceo-letter (explaining that “environmental, social, and governance issues will be increasingly material to corporate valuations”). See also STATE ST. GLOB. ADVISORS, PROXY VOTING AND ENGAGEMENT
Some index fund sponsors express concern, however, about their limited ability to avoid investing in portfolio companies with value-decreasing governance structures.\textsuperscript{132} IPO companies frequently go public with dual class voting structures, staggered board and other features that do not comply with so-called best governance practices.\textsuperscript{133} When those companies meet the criteria for inclusion in an index, an index fund must invest in their shares despite the view that the company’s performance would be improved by improvements in its governance. These sponsors have complained vociferously about this, and the fact they are being forced to invest in companies who lack the governance scheme they desire.\textsuperscript{134}

One potential solution is to exclude companies with poor corporate governance from the standard indices.\textsuperscript{135} After a controversial debate over whether issuers should be allowed to go public with dual or multi-class voting structures in which public investors were only able to purchase low vote or no vote stock, some market participants called upon index providers to exclude dual class issuers from inclusion in the most popular indexes.\textsuperscript{136} In 2017, two leading
index providers – Dow Jones and FTSE Russel, which provide the indices tracked by the most popular index funds – announced that, on a prospective basis, they would no longer include companies with multi-class voting structures.\textsuperscript{137}

As Scott Hirst and Kobi Kastiel explain, governance by exclusion is potentially problematic for index funds.\textsuperscript{138} Particularly for the broad-based market indices, the exclusion of dual class companies can substantially affect the composition of the fund as well as its performance. Governance by exclusion imposes unproven assumptions about the economic impact of particular governance terms on those who invest in index funds. In addition, index fund investors who are seeking to invest in the overall market may not even understand that, as a result of a decision by the index provider, their portfolio does not contain exposure to an important segment of the market.\textsuperscript{139} On these bases, BlackRock opposed the revision of the indexes instead arguing that its index funds should still be permitted to invest in these companies but the companies themselves should eliminate this structure.\textsuperscript{140}

c. Bespoke Indexes: A New Governance Tool

The challenge of disciplining governance through index investing results from limitations in the scope of index funds themselves. A noted above, the vast majority of funds track a few broad-based indices such as the S&P 500. Index exclusion, at least in the case of dual class stock, focuses on whether to exclude companies with a particular governance feature from those standard indices. But the index market, to date, does not appear to have used governance provisions as a basis for constructing bespoke indexes.\textsuperscript{141}

\textsuperscript{137} Id. at 1232.
\textsuperscript{138} Id.
\textsuperscript{139} For example, a dual class exclusion would include companies such as Google, Facebook and Pinterest.
\textsuperscript{141} We note there have been limited efforts to exploit corporate governance as a trading strategy outside the ESG context. Perhaps the best known is the Lens fund, which used a long/short strategy to exploit differences in corporate governance. An example of an actively-managed fund that explicitly discloses its consideration of governance is the Neuberger Berman Intrinsic Value Funds. See, e.g., Neuberger Berman Intrinsic Value Fund Summary Prospectus A C and Institutional, at 2-3 (Dec. 13, 2019) https://www.nb.com/handlers/documents.ashx?item_id=c9b99343-2112-42cf-9a17-9ad85ba01522 (“The Portfolio Managers also integrate governance factors into the investment process. They seek to invest in companies that have effective and independent boards composed of diverse, and currently active, CEOs and other C-level executives. They look for companies where management and shareholder interests are aligned (often through
There is no obvious reason for this omission. The major index providers can and do construct bespoke indexes at the behest of an asset manager. An index provider can incorporate any set of rule-based firm selection criteria into an index, including governance features. As a result, it is possible to create an index comprised solely of companies with dual class voting structures or to construct a dual-free S&P 500 index. Similarly, it is possible to construct an index that extends beyond the exclusion of dual class and that excludes companies with other “bad” governance provisions such as a staggered board, a combined chairman and CEO, plurality voting, excessive restrictions on shareholder ability to call a special meeting, or any other governance feature.

Governance-based index funds thus could provide investors with access to synthetic governance, the ability to select their portfolio companies on the basis of governance criteria. The utility of such funds is manifold. First, they provide a solution to the inability of index funds to exercise market discipline by selling the stock of companies with bad corporate governance. Because an asset manager can offer a “good governance” fund in which governance is an investment criterion, asset flows into that fund will have the effect of reducing the cost of capital for the fund’s portfolio companies. Second, governance funds offer a market-based mechanism to evaluate empirically the effect of corporate governance. If, as many large institutional investors claim, certain bad governance features are value-decreasing, good governance funds should outperform their broad-based peers and attract inflows from investors.

Finally, synthetic governance provides a mechanism to enhance management accountability by providing passive investors a mechanism by which to subject the governance choices of their portfolio companies to capital market discipline. There are also systemic effects – if bespoke governance indexes are successful in attracting investor assets, firms may adopt specific governance practices to qualify for inclusion. To be sure, this may dilute the performance of these indexes are attributable to firm characteristics which are not a product of the

high ownership of the company by management), with long-term incentive plans and CEO and management compensation and succession plans in place.”). We note that an index-based approach offers several advantages including a more transparent set of governance criteria as well as the substantially lower costs associated with an index-based investment vehicle. See, e.g., supra note 48 (noting the potential costs associating with operating a hedge fund to exploit a governance-based investment strategy).

142 See Robertson, supra note at 115.

governance mechanism but a feature. We take up this issue further in the next section, but the answer to this issue in that case is the development of a new index. In other words capital will dictate which governance mechanisms are the most valuable, on average.

Although ESG investing differs to a degree from a governance-based investing strategy, the rise of ESG index funds provides an analogous illustration of the practicality of the index-based concept. ESG-based investing is one of fastest growing investment categories. Large asset managers are offering investors an increasing number of index fund products that track various ESG indices such as the MSCI ESG indices, the Dow Jones Sustainability indices, or are based on indexes constructed from ESG ratings such as Sustainalytics. In each case, the fund uses an index constructed on the basis of ESG criteria as the basis for its investments. For example, Dow Jones offers an S&P 500 ESG fund that excludes those companies in each industry group that have the lowest ESG scores based on the S&P DJI ESG scores as well as companies that make tobacco, weapons and those not in compliance with the United Nations Global Compact.

Investors can thus use index funds to select or exclude portfolio companies based on ESG criteria. In other words, ESG can function as a positive screen – whereby an index will include portfolio companies that meet designated ESG criteria – or as a negative screen in which companies with certain characteristics are excluded from the index. As funds based on these indexes develop a track record, their performance will provide valuable information on the relationship between ESG and economic performance. ESG indexes can implement broad-based screens or those that are hyper-specific. The SPDR SSGA Gender Diversity Index ranks companies within each sector by three gender diversity ratios and focuses “on companies with the highest levels within their sectors of senior leadership gender diversity.” The related ETF had $117 million in assets under management as of June 26, 2020 and its three top holdings were

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Paypal, Visa, and Home Depot. For the year to date (through July 1) the ETF has returned -7.78% compared to -3.52% for the S&P 500 Index.

d. Synthetic Governance in Action

Given the range of indexes and related ETFs, it is apparent that there is demand and a market structure to support the use of bespoke indexes to implement synthetic governance. Mutual funds structured in accordance with these indexes would allow investors to select for their preferred governance characteristics.

We theorize that fund flows into governance mutual funds would be based on the characteristics that drive fund flows elsewhere -- mainly excess return. In this regard we do not view a governance index as a sector index likely to generate idiosyncratic or undiversified performance. A governance index would instead operate as a general market index akin to the S&P 500 or Russell 3000 but keyed to governance characteristics. In this regard, the benchmark for such an index would be these wider, market indexes.

The development of governance indexes would allow investors to address the selection and endogeneity problems of empirical studies. Instead, a firm’s governance provisions would be evaluated by reference to the performance of the governance fund relative to the broader market (or, in some cases, the relevant sector). Governance indexes would simply let investors include or exclude companies based on specific or multiple governance provisions. In this regard, synthetic governance is no different than any index -- it implements a rule-based approach to stock selection with specific governance provisions constituting the applicable rules. By providing a simple and low-cost investment strategy based on governance provisions, synthetic governance will allow capital flows to select which governance features are value increasing. As such, synthetic governance is a market-based alternative to regulation, a tool for enhancing the market discipline of firm-specific governance choices.

Moreover, two of us have theorized that governance and voice in index funds can ameliorate systemic risk issues. To the extent this theory is true, a bespoke governance ETF may also draw capital looking to hedge against systemic risks that specific governance provisions address. It may therefore be that these types of indexes attract capital even if they lag the S&P 500 or other major indexes.

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148 Id.
149 We note that this proposition would not hold to the extent that particular governance provisions are disproportionately associated with a particular industry sector. See infra note [] (discussing this concern in connection with dual class stock).
150 Fisch et al., supra note 1, at 25-26.
In the next section we illustrate the use of synthetic governance through the construction of an index predicated on dual class voting structures: the Dual Index.

IV. The Dual Index

The Dual Index is a bespoke index of dual-class companies conceived and developed by one of the co-authors of this paper. The objective of the Dual Index is to target those dual-class companies in which, according to the existing empirical literature, the net benefits of the dual-class structure are most likely to be positive. It does so in two steps: first, by selecting dual class companies and second, by creating a synthetic time-based sunset provision to exclude stocks that retain a dual class structure a designated number of years after the company’s IPO. The Dual Index thus provides a model of how to create a customized governance regime through synthetic governance.

In the following sections, we provide the details of the Dual Index construction and report our tests of its performance.

A. Dual Index Construction

Figure 1 illustrates the rise to prominence of dual-class companies over the last decade. The total market value of dual-class companies has increased by five times: from $700 billion in June 2009 to $3.8 trillion in December 2019. As of the most recent index reconstitution, the value of dual-class companies represented more than 10% of the market capitalization of the entire Russell 3000 index.

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151 A version of the Dual Index is licensed to an ETF issuer under the name North Shore Dual Share Class ETF (the “Fund”). The Fund seeks to provide investment results that, before fees and expenses, correspond generally to the total return performance of the North Shore Dual Share Class Index (the “Index”).
To develop the Dual Index, we follow a biannual reconstitution process. Semiannually, at the end of June and December of each year, we compile a list of dual-class companies with ordinary common shares listed on NYSE, NASDAQ, or AMEX and total market capitalization in excess of $100 million. From this subset, we initially select for inclusion those dual-class companies whose firm age as a public company (the time elapsed since their IPO) ranges from six months to twenty years. Since most IPOs have six-month lockups that can influence both price and volatility, our portfolio excludes IPOs prior to the expiration of that lockup. The twenty-year filter effectively retains all companies that went public after the Google IPO in 2004. As a result, the Dual Index effectively eliminates the prior generation of dual class companies – the family owned and media companies that are the focus of some earlier empirical studies of dual class stock. The twenty-year filter is sufficiently long that it does not impose a synthetic sunset – an issue that we address later; instead, a twenty-year window is of sufficient length that it addresses the issues two of us raised in the Problem of Sunsets, namely that a time horizon is arbitrary and appears contrary to the purpose of a sunset which is to end dual class when it is no longer useful to implement the founder’s visionary mission.

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152 See, e.g. James C. Brau, David A. Carter, Stephen E. Christophe & Kimberly G. Key, Market Reaction to the Expiration of IPO Lockup Provisions, 30 MGMT. FIN. 75 (2003) (reporting statistically significant negative abnormal returns in the event window surrounding the expiration date of the lockup).


154 See Fisch & Solomon, supra note 3, at 1080.
In case of a delisting or collapse of the dual-class structure, we reinvest the proceeds in the market portfolio until the next Dual Index reconstitution. Our back-testing period is from June 2009 to December 2019, which is the most recent date on which we reconstituted the Dual Index.

**B. Dual Index Characteristics**

As of December of 2019, the Dual Index included 178 dual-class companies valued at $3.4 trillion. The Index includes for 89% of the market capitalization of all dual-class companies listed across major U.S. stock exchanges.

With respect to the distribution of index weights across sectors, Table 1 shows that as of December 2019, the most heavily weighted sectors are Communication Services (38.8%) and Information Technology (33.7%) followed by Financials (9.4%), Consumer Discretionary (4.9%), and Health Care (4.4%). Focusing on these sectors, the top portfolio holdings include, Facebook (Communication Services), Visa (Information Technology), CME Group (Financials), Lululemon Athletica (Consumer Discretionary), and Zoetis (Health Care).

Table 1 also demonstrates how the sector representation within the Dual Index has evolved over time. In particular, the prominence of dual-class companies in the Communication Services and Information Technology sector has increased, and the relative index weights of dual-class companies in the Industrials sector has declined.

<table>
<thead>
<tr>
<th>Table 1: Dual Index Sector Weights</th>
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<tbody>
<tr>
<td>GICS Sector</td>
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<tr>
<td>Communication Services</td>
</tr>
<tr>
<td>Information Technology</td>
</tr>
<tr>
<td>Financials</td>
</tr>
<tr>
<td>Consumer Discretionary</td>
</tr>
<tr>
<td>Health Care</td>
</tr>
<tr>
<td>Consumer Staples</td>
</tr>
<tr>
<td>Industrials</td>
</tr>
<tr>
<td>Real Estate</td>
</tr>
<tr>
<td>Energy</td>
</tr>
<tr>
<td>Materials</td>
</tr>
<tr>
<td>Utilities</td>
</tr>
</tbody>
</table>

Table 2 compares the Dual Index constituents to the general population of companies along several dimensions of corporate governance. The evidence
shows that the dual-class structure overlaps with other provisions that may inhibit management accountability to shareholders and increase agency costs – that is, other provisions typically characterized as “bad” governance. To illustrate, dual class companies are significantly less likely to separate the CEO and board chair positions. The percentage of dual-class companies with combined CEO-chair roles is 42% compared to 32% for the general population. Dual-class companies are less likely to require majority vote to elect their board (26% vs. 42%). Dual-class companies are also slightly less likely to have a majority of independent board directors (83% vs. 88%) and less likely to have a majority voting director resignation policy (30% vs. 48%).

With respect to other corporate governance dimensions, dual-class companies are less likely to have a poison pill policy (1% vs. 3%) in which the company needs to obtain stockholder approval before adopting a poison pill and are less likely to require supermajority voting for mergers (7% vs. 17%). This last provision makes it difficult for an acquirer to achieve the affirmative vote of enough shareholders to approve a merger transaction or even impossible if insiders hold enough shares to prevent the acquirer from obtaining the required vote. Lastly, dual-class companies are less likely to provide shareholders with the power to call a special meeting (39% vs. 46%).

<table>
<thead>
<tr>
<th>Table 2: Corporate Governance Characteristics</th>
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<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>I(Dual CEO Chair)</td>
</tr>
<tr>
<td>I(Majority Vote to Elect Board)</td>
</tr>
<tr>
<td>I(Majority Board Being Independent)</td>
</tr>
<tr>
<td>I(Director Resignation Policy)</td>
</tr>
<tr>
<td>I(Poison Pill Policy)</td>
</tr>
<tr>
<td>I(Supermajority Vote Merger)</td>
</tr>
<tr>
<td>I(Shareholders Special Meeting Rights)</td>
</tr>
</tbody>
</table>

***, **, and * indicate statistical significance at the 1%, 5%, and 10% level, respectively, using two-tailed tests.

C. Back-Testing Results

Next, we evaluate the historical track record of the Dual Index. Table 3 presents the results over the 126 months from June 2009 to December 2019. We

155 The director resignation policy requires any director who receives more withheld than votes for their election to tender his or her resignation to the board. The board will then decide whether it will accept the resignation. See Stephen J. Choi, Jill E. Fisch, Marcel Kahan & Edward B. Rock, Does Majority Voting Improve Board Accountability?, 83 U. CHI. L. REV. 1119, 1126 (2016) (explaining director resignation policies).
construct the value-weighted market index including distributions using the CRSP universe of common stocks.

Over the back-testing period, the Dual Index earned an annual return of 19.23% with standard deviation of 14.39%, while the CRSP market index earned an annual return of 14.98% with standard deviation of 12.98%. The Dual Index performance corresponds to a monthly multi-factor alpha of 31 basis points. In terms of factor loadings, the Dual Index has (a) positive loadings on the market and momentum factors, (b) negative loadings on the size and investment factors, and (c) insignificant loadings on the value and profitability factors.

<table>
<thead>
<tr>
<th>Table 3: Dual Index Performance (June 2009 to December 2019)</th>
</tr>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Monthly Return</td>
</tr>
<tr>
<td>Monthly Volatility</td>
</tr>
<tr>
<td>Annual Return</td>
</tr>
<tr>
<td>Annual Volatility</td>
</tr>
</tbody>
</table>

Table 3 also compares the Dual Index to two other benchmarks. First, in the third column, it compares the Dual Index to the market with dual-class companies excluded. The third column thus demonstrates the economic impact of excluding dual class in accordance with the approach recently adopted by some index providers. As the column indicates, excluding dual class has little effect on performance relative to the market as a whole.

Second, in response to the fact that dual class voting structures are concentrated in the technology sector, and to isolate the sectoral component of the Dual Index, we construct a portfolio of non-dual-class companies with identical sector weights to those of the Dual Index. In essence, the mimicking index (“Mimic Index”) replicates the sectoral exposure of the Dual Index using non-dual-class companies. This index thus addresses concerns that the results of the Dual Index are driven solely by out-performance of technology firms.

Table 3 shows that over the back-testing period the Mimic Index earned an annual return of 15.89% with standard deviation of 13.10%, while the Dual Index earned an annual return of 19.23% with standard deviation of 14.39%. Figure 2 also shows that a one-dollar investment in the Mimic Index would have grown to $4.81 between June 2009 and December 2019. Over the same time, a one-dollar investment in the Dual Index would have grown to $6.68. While the Mimic Index outperforms the market index over the back-testing period, it does not fully account for the outperformance of the Dual Index. Stated otherwise, the performance of the Dual Index does not simply capture the sectoral
performance of dual-class constituents. One implication is that there is a firm-specific component to the dual-class share structure choice that goes beyond sectoral variation.

Figure 2 plots the cumulative growth of a one-dollar investment in the Dual Index (green line) relative to the cumulative growth of a one-dollar investment in the market index (blue line). The evidence shows that a one-dollar investment in the Dual Index would have grown to $6.68 between June 2009 and December 2019. Over the same time, a one-dollar investment in the market index would have grown to $4.38. Figure 2 also shows that the performance of the Dual Index is especially pronounced in the second half of our back-testing period, which is consistent with the rise in prominence of dual-class companies.

We note that the spread in the realized performance of the Dual Index relative to the overall market portfolio may understate the outperformance of dual-class companies. This is because the overall market index performance, especially over the last decade, is partially attributed to the rise of dual-class companies. Going forward, major indices will either exclude or underweight dual-class companies. As a result, index investors will no longer be able to effortlessly access the growth of these companies through their index holdings. Indeed, over the back-testing period a one-dollar investment in the market index excluding Dual stocks would have grown to $4.26, which is slightly below the performance of the market index including Dual stocks.

**D. The Effect of Sunset Lengths**
The Dual Index does not merely enable us to capture the effect of an investment strategy based on whether a firm utilizes a dual-class voting structure, it allows us to go further and test the effect of a time-based sunset. We do this by shortening the length of time a company remains in our index following its IPO. By excluding dual-class companies a designated number of years after the IPO we are, in effect, creating a synthetic sunset.

Part of the value of this approach is that it sheds light on the time period that is necessary to allow the founders to fulfill their idiosyncratic vision. To explore this question, we test the performance of the Dual Index using alternative sunset provisions ranging from five to twenty years.

Table 4 reports the back-testing results and reveals that the performance of the Dual Index is higher for shorter sunset windows but at the expense of higher return volatilities and portfolio turnover. Indeed, the Sharpe ratio, that is, the ratio of average excess returns divided by the standard deviation of the excess return on each bespoke portfolio, is relatively flat across the different sunset windows. It follows that per unit of volatility the performance of the Dual Index is similar regardless of the length of the synthetic sunset.

<table>
<thead>
<tr>
<th>Sunset Length:</th>
<th>20 years</th>
<th>15 years</th>
<th>10 years</th>
<th>5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Return</td>
<td>1.60%</td>
<td>1.71%</td>
<td>1.67%</td>
<td>2.11%</td>
</tr>
<tr>
<td>Monthly Volatility</td>
<td>4.15%</td>
<td>4.32%</td>
<td>4.85%</td>
<td>5.35%</td>
</tr>
<tr>
<td>Annual Return</td>
<td>19.23%</td>
<td>20.47%</td>
<td>20.01%</td>
<td>25.38%</td>
</tr>
<tr>
<td>Annual Volatility</td>
<td>14.39%</td>
<td>14.95%</td>
<td>16.82%</td>
<td>18.54%</td>
</tr>
<tr>
<td>Cum. Growth of $1</td>
<td>$6.68</td>
<td>$7.53</td>
<td>$6.97</td>
<td>$11.74</td>
</tr>
<tr>
<td>Portfolio Turnover</td>
<td>5.7%</td>
<td>6.6%</td>
<td>6.6%</td>
<td>12.8%</td>
</tr>
</tbody>
</table>

Whereas we do not firmly advocate for a particular sunset window, our evidence illustrates the range of possibilities in the design of synthetic governance portfolios. Nonetheless, our findings illustrate early stage dual-class companies appear both to generate higher returns for investors but at the cost of causing them to bear additional risk. The variation in table 4 indicates the potential value of multiple Dual Class indexes using a variety of artificial sunsets which reflect the risk preferences of investors. Again, we view this as an advantage of synthetic governance, allowing investors to select into their preferred governance preferences. To be clear, our evidence does not directly speak to the value of the alternative sunset lengths. Nevertheless, our evidence demonstrates that the dual class structure may be most valuable in the first few years post-IPO.
One significant question about the Dual Index is the extent to which it can accurately be described as evaluating the economic effect of a governance provision. Particularly as applied to the recently-IPO’d technology companies, dual class voting structures may not be the cause of excess returns but instead the consequence. That is, companies that investors expect to outperform may, at the IPO stage, be able to go public with governance structures that investors would not otherwise tolerate. The fact that those companies subsequently perform well does not provide evidence on the counterfactual question of whether they would have performed even better with a one share/one vote structure. At the same time, we note that a declining percentage of companies are choosing to access the public capital markets at all, and the availability of governance provisions that increase founder insulation may be one tool that increases the founder’s willingness to allow public investors to share in the company’s growth. If governance provisions that provide founder insulation are a necessary tool to induce unicorns and the like to enter the public markets, the Dual Index provides evidence that public investors are better off with such companies than without them.

V. The Split Index

The Dual Index is but one example of synthetic governance. It is possible to create indexes based on other governance characteristics. For example, an independent director index could be used to invest only in companies with a specified proportion of independent directors. A staggered board index could be used to invest only in companies with (or without) a staggered board.156

To illustrate further the potential of synthetic governance we create a Split index which consists of companies that split the positions of CEO and Chairman of the board. Institutional investors increasingly cite the separation of these positions as an important measure of good corporate governance.157 The theoretical idea behind this split is that it will cause a board to have more

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156 Such an index would be particularly useful in generating evidence for what appears to be a never-ending debate about the economic impact of staggered boards. Compare Alma Cohen & Charles C.Y. Wang, How Do Staggered Boards Affect Shareholder Value? Evidence from a Natural Experiment, 110 J. FIN. ECON. 627 (2013) (presenting empirical evidence that staggered boards lead to lower firm value) Cremers, et al., supra note 57 (presenting evidence that, in some firms, staggered boards increase firm value) and Amihud, et al., supra note 9 (finding that a staggered board has no significant impact on firm value).

157 See, e.g., Council of Institutional Investors, Independent Board Leadership, https://www.cii.org/independent_board (last visited June 29, 2020) (“A CEO who also serves as chair can exert excessive influence on the board and its agenda, weakening the board’s oversight of management. Separating the chair and CEO positions reduces this conflict, and an independent chair provides the clearest separation of power between the CEO and the rest of the board.”).
oversight over the CEO and thereby make economically improved decisions.\textsuperscript{158}
But, as with dual class, the positive economic effect of splitting the two positions has yet to be established.

We create the split index by obtaining annual CEO-Chairman duality data from the ExecuComp and identify the role of chairman of the board by keyword detection in CEO's yearly title. Specifically, the keywords include "chairman" and "chmn", and exclude "vice chairman" and "vice-chairman." We then create an index of companies that meet this criteria.

<table>
<thead>
<tr>
<th>Table 5: Split Index Performance (June 2009 to December 2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td>Split Index</td>
</tr>
<tr>
<td>Monthly Return</td>
</tr>
<tr>
<td>Monthly Volatility</td>
</tr>
<tr>
<td>Annual Return</td>
</tr>
<tr>
<td>Annual Volatility</td>
</tr>
<tr>
<td>Cum. Growth of $1</td>
</tr>
</tbody>
</table>

The back-testing results in Table 5 show that the Split Index outperforms the CRSP market benchmark by 75 basis points per annum. A one-dollar investment in the Split Index would have grown to $4.70 between June 2009 and December 2019. Over the same time, a one-dollar investment in the market index would have grown to $4.38.

The findings thus also highlight that other indexes comprised of corporate governance measures can also earn excess returns above a benchmark. In addition, the Split Index partially addresses the endogeneity problem that we identified with respect to the Dual Index. Because an issuer is not typically locked into a split Chair and CEO through a charter provision, mid-stream changes between combined and split positions are a regular occurrence, an existing CEO rarely has the power to preclude the shareholders or the board from splitting the two positions, and an issuer cannot extract investor acquiescence in a combined structure as the price of investing in the company.\textsuperscript{159}

To be sure, issuers may respond to the growth of synthetic governance by modifying their governance features to qualify for inclusion. This may have an effect on future returns. Notably, however, this response would demonstrate the

\textsuperscript{158} See id. ("Having an independent chair helps the board carry out its primary duty—to monitor the management of the company on behalf of its shareowners").

potential disciplinary power associated with enabling investors to choose an index strategy based on governance. To the extent that a governance index generates superior returns and investor assets respond by flowing into the index, if issuers adopt the index’s governance provisions, the capital market forces are working effectively.

Conclusion

Although the rise of intermediated investing has generated extensive criticism, it offers a new mechanism for exercising market discipline. Mutual funds already offer investors the opportunity to invest in a passive fund that replicates the performance of a broad-based market index or to focus on ESG criteria in their investment decisions. The returns of these funds provide empirical evidence on the relative economic performance of their investment strategies.

We demonstrate that the potential of mutual funds extends further and provides a tool to evaluate corporate governance practices. Constructing a bespoke index that selects or excludes portfolio companies based on governance criteria allows investors to opt into or out of governance structures while retaining the benefits of a low-cost passive investment strategy. To the extent that investor concerns over particular governance features are well-founded, the return of governance funds enables fund flows to function as a form of synthetic governance. Synthetic governance thus creates a neutral arbiter of governance that can dictate preferred provisions through capital allocation.

We illustrate the potential of synthetic governance by creating and evaluating an example - the Dual Index. The Dual Index confirms that synthetic governance is a viable and discrete possibility. It shows that, at least on a historical basis, a synthetic index of dual class stock outperforms applicable benchmarks. While this outperformance might be attributable to selection effects or the enhanced protection dual class provides to a founder’s idiosyncratic vision, either way, investors benefit from the option to invest in the Dual Index. We also create a number of alternative indexes with synthetic sunsets that highlight the value creation of dual class shares in the years closer to the IPO date, and provide evidence of the potential value of a dual-class sunset. We create a second governance index – the Split Index – to explore further the possible value of synthetic governance to provide market-based investment options that have the potential to generate excess returns. While synthetic governance is unlikely to end the debate which corporate governance provisions enhance firm value, it offers a practical market-based response as an alternative to broad-based regulatory reforms. We thus offer a path forward to resolve what has previously been a logjam in the debates over the efficacy of corporate governance.
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