The Economics of Corporate Governance

Mathieu Pellerin, Senior Researcher, Dimensional Fund Advisors

July 2022

This paper surveys the academic literature on the governance of for-profit, publicly traded corporations. We first address corporate objectives. Specifically, we discuss how shareholder value maximization relates to alternative doctrines such as stakeholder capitalism, and why the alternatives are likely to fall short of their promises. We then review the role of corporate governance in addressing potential conflicts of interests between shareholders and their agents: directors and executives. The paper then turns to the empirical literature, which finds that electing independent and qualified boards, allowing takeover markets to operate freely, and aligning executive compensation with shareholder interests all have a positive effect on shareholder value. We conclude by outlining potential implications for investment stewardship.

"Corporations are republics. The ultimate authority rests with voters (shareholders). These voters elect representatives (directors) who delegate most decisions to bureaucrats (managers). As in any republic, the actual power-sharing relationship depends upon the specific rules of governance. One extreme, which tilts toward a democracy, reserves little power for management and allows shareholders to quickly and easily replace directors. The other extreme, which tilts toward a dictatorship, reserves extensive power for management and places strong restrictions on shareholders' ability to replace directors."

Paul Gompers, Joy Ishii, Andrew Metrick Corporate Governance and Equity Prices (2003)

1. Introduction

A single corporation, Walmart Inc., directly employs 2.2 million people in its global operations.¹ This is more than the entire population of Nebraska or New Mexico—a testament to the role corporations play in driving large-scale economic activity. This role is especially prominent in capital-intensive or complex activities, such as designing computer processors (AMD, Intel, Nvidia) or producing COVID-19 vaccines (J&J, Moderna, Pfizer). Because corporations play a central role in the economy, the objectives they pursue, how they pursue them, and how they should pursue them, are all crucial questions for investors and society at large.

In this paper, we focus on the corporation type most relevant to investors: the publicly traded, for-profit corporation. Section 2 outlines the key characteristics of a corporation. We discuss several benefits of the corporate structure, which explain the corporation's central role in driving economic activity. We also examine the costs of the corporate structure, namely, the conflicts of interests that arise from the separation of ownership and management.

The very nature of the for-profit corporation suggests a natural objective: shareholder value maximization, which has roots in law and economics. In both disciplines, the doctrine is closely associated with the agency view of the firm (*Jensen and Meckling, 1976*; *Fama and Jensen, 1983a, 1983b, 1985*). Shareholders, the owners, delegate the task of maximizing the firm's value to corporate directors, the agents. Under this view of the corporation, the central task of governance is to ensure that directors act in the best interests of investors. Directors should be incentivized to treat shareholders' objectives as their own (*Laby, 2008*), consistent with their role as elected representatives. According to *Berger (2019)*, shareholder value maximization has been the dominant view since the mid-1980s.²

^{1.} Walmart's corporate website, June 2022.

^{2.} See Friedman (1970) for an early precursor.

Competing doctrines, such as stakeholder capitalism, reject the premise that the corporation should be run for the sole benefit of shareholders. Instead, stakeholder capitalism holds that directors should consider the interests of a broad group of stakeholders, usually defined to include anyone who is materially impacted by the corporation's activities (*Sternberg, 2004*; *Bebchuk and Tallarita, 2021*). Stakeholders could include workers, suppliers, customers, and local communities. The ideas at the core of stakeholder capitalism are not new (e.g., *Lipton 1979, Lipton and Savitt, 2007*). However, the latest incarnation of the doctrine has gained increasing attention thanks to public declarations of support by corporate executives, such as the Business Roundtable's recent "Statement on the Purpose of a Corporation."

We examine stakeholder capitalism and another alternative to shareholder value maximization, shareholder welfarism (*Hart and Zingales, 2017*), in Section 3. We highlight the conceptual difficulties associated with both doctrines, which are likely to hamper their real-world applicability. We also summarize the emerging evidence on stakeholder capitalism, which suggests that it benefits neither shareholders nor other stakeholders.

We then focus on shareholder value maximization for the rest of the paper. Section 4 presents a simple framework that clarifies how different governance provisions can impact the firm's market value. The following three sections examine the empirical research on how specific governance provisions impact shareholder value.

Section 5 focuses on board structure and composition. As *Gompers et al. (2003)* highlight, directors are the only corporate agents directly elected by shareholders, and they link shareholders to all other agents in the firm. Therefore, we examine the literature on the functions they perform, such as monitoring and advising executives, and the mechanisms to hold them accountable. Electoral rules that facilitate the removal of underperforming directors, director independence from the executives they must monitor, and director expertise on strategic issues relevant to the firm all appear to have a positive effect on firm value.

Section 6 explores the effects of two potent antitakeover provisions: the combination of a staggered board and a poison pill (*Bebchuk et al., 2002a*), and dual-class shares (*Bebchuk and Kastiel, 2017*; *Lund, 2019*). Both structures put strong restrictions on the ability of shareholders to hold directors accountable: In the words of *Gompers et al. (2003*), they shift the corporation away from shareholder democracy. The empirical literature suggests that antitakeover devices reduce shareholder value, consistent with the agency view of the firm we outline in Section 2.

Section 7 looks at executive compensation. We discuss the challenges with designing a pay package that aligns the incentives of the CEO with those of shareholders. We also provide an overview of real-world pay practices. Pay practices that reward CEOs for long-term value creation seem to increase shareholder value. Section 8 concludes with potential implications of our review for investment stewardship.

^{3. &}quot;Statement on the Purpose of a Corporation," Business Roundtable, August 2019.

2. Corporations

2.1. Corporate structure

Most publicly traded, for-profit corporations meet three criteria. First, owners and managers are distinct. Managers run the corporation, with little day-to-day involvement from shareholders. Second, shares provide voting rights and rights over residual cash flows, present and future. Third, shares can be bought and sold freely.⁴

Specifically, shareholders are last in line to receive cash flows. This rule aligns shareholder incentives with the long-term survival of the organization. Also, because shareholders have the lowest priority over cash flows, giving them control rights minimizes conflicts between stakeholders. For example, shareholders cannot easily threaten debtholders with expropriation: If a debt is not repaid, bankruptcy proceedings occur, and debtholders take control of the company's assets. By contrast, if debtholders controlled the company, their incentives to maximize long-term value or profitability would be weak, since their investment has a maturity date and fixed payoffs with no upside. These weak incentives could result in decisions that weaken the organization, harming other stakeholders, such as employees or shareholders, in the process. This asymmetry is why shareholders alone vote: Among all stakeholders, they have the strongest incentives to monitor corporate actions (*Griffith*, 2020).

The corporation is one organizational form; others include sole proprietorships and professional partnerships. A distinguishing feature of corporations is that they allow risk-bearing and management to be separated (*Fama and Jensen, 1983a*). Shareholders are not necessarily skilled at operating companies, while managers do not necessarily have the wealth or willingness to bear risk. The separation allows greater specialization in both roles. In particular, since shareholders need not be involved in the day-to-day management of the firm, corporations have access to a wider pool of potential shareholders.

Publicly traded corporations have access to the broadest pool of potential investors since their shares are traded on exchanges open to retail and institutional investors. A classic result in portfolio theory is that, since investors in public capital markets can diversify away stock-specific risks by spreading their investments across many companies, they should be compensated only for exposure to systematic, non-diversifiable risk. Therefore, the publicly traded corporate structure facilitates the allocation of investment risk across a large number of diversified shareholders who only demand compensation to bear non-diversifiable risk, thus lowering the firm's cost of capital. This cost advantage enables publicly traded corporations to finance large-scale projects (Fama and Jensen, 1985), especially those that require specialized assets (Fama and Jensen, 1983a).

The corporate structure, however, also has costs. While separating ownership from management allows for specialization in both functions, it can also result in conflicts of interests between shareholders and management (*Jensen and Meckling*, 1976).

^{4.} There are exceptions. Rules apply to insiders, large beneficial owners, IPOs, etc. However, shares of publicly traded corporations can still be transacted much more easily than those of other firm types.

2.2. Agency costs and corporate governance

Agency costs emerge in corporations because shareholders (the *principals*) delegate oversight to directors (the *agents*), whose incentives may differ. Directors then delegate day-to-day administration to executives, creating another principal-agent relationship. Opportunistic behavior and negligence by directors or managers can destroy shareholder value.

Corporate governance supplies tools to reduce agency costs. *Sternberg (2004)* defines corporate governance as "ways of ensuring that corporate actions, agents, and assets are directed at achieving the corporate objectives established by the corporation's shareholders." The very structure of publicly traded, for-profit corporations is designed to facilitate this objective by mitigating conflicts of interests between shareholders and corporate agents.

Fama and Jensen (1983a) predict that organizations tend to separate decision control from decision management when decision-makers bear only a small part of the wealth consequences of their actions. Consistent with that view, in corporations, executives are responsible for initiating and implementing key projects (decision management), while directors are responsible for approving strategic decisions and monitoring their implemention (decision control). This structure reduces management discretion by allowing directors to act as a guardrail against value-destroying initiatives or poor execution.

Because of the special place they occupy in the corporate structure, directors receive considerable attention in the governance literature. Corporate law places directors, not executives, at the top of the hierarchy: Directors "hire, fire, and [compensate]" top management (*Fama and Jensen, 1983a*). Unlike executives, directors are disciplined directly by shareholders, who elect them annually. The threat of removal acts as a check on opportunistic behavior.

The election of directors is central to corporate governance, as it represents the main link between shareholders and all other agents in the firm. Accordingly, electoral rules matter, since they determine how easily shareholders can discipline agents whose efforts are not directed at representing shareholder interests. For instance, while shareholders cannot dismiss executives directly, they can elect a new board that will appoint new executives.

The compensation package of directors and executives is another important tool in corporate governance, as pay contracts tied to shareholder value can help reduce conflicts of interest by aligning incentives. Disclosure requirements can also be useful, since they allow investors to better monitor the performance of directors and executives. All governance mechanisms interact, and their effect may depend on one another: For example, in corporations where the threat of removal is weak, incentive pay may have a larger effect on the performance of corporate officers.

Jensen and Meckling (1976) emphasize that agency costs encompass losses due to opportunistic behavior, but also the cost of mechanisms to prevent it. For instance, an overabundance of checks and balances may *increase* agency costs by resulting in gridlock that is more destructive

than the opportunistic behavior prevented (see also *Goshen and Squire, 2017*). The key objective of corporate governance is to minimize agency costs, which means reducing conflicts of interest between shareholders and corporate agents without negating the benefits of delegation.

2.3. Agency costs and external constraints

External mechanisms can also reduce agency costs (e.g., *Murphy, 2013*). Notably, markets and courts act as additional checks and balances on opportunistic behavior by corporate agents. *Bebchuk et al.* (2002b) argue that, while these external mechanisms reduce agency costs, they leave considerable room for opportunistic behavior. Therefore, they complement rather than replace corporate governance.

One external mechanism is legal action. The directors of Delaware corporations have a fiduciary duty to act in the best interests of shareholders.⁵ Hence, shareholders can sue directors for an alleged breach of fiduciary duty. However, courts generally apply the *business judgment rule*, which gives deference to directors by presuming that "they acted in an informed and deliberative manner and were motivated by the best interests of shareholders" unless there is strong evidence to the contrary (*Atkins et al., 2019*). In practice, only egregious instances of malfeasance or negligence are likely to be penalized.⁶

Takeover markets are another mechanism for monitoring directors and executives. When disciplining directors, dispersed shareholders face a collective action problem (*Bebchuk*, 2007). All shareholders benefit from high-performing directors, but each shareholder has an incentive to free-ride on the monitoring efforts of the others. However, if the share price drops substantially as a result of poor governance, incentives to mount a hostile takeover rise. Hostile bidders are more willing to bear the cost of disciplining incumbent officers because they will reap most of the benefits if their attempt is successful.

This mechanism is not perfect either, however. *Bebchuk and Fried (2004)* state that the average premium paid by hostile acquirers in the late 1990s was 40%. Therefore, a hostile bidder must expect to make substantial improvements to corporate performance for a bid to make sense. The takeover market provides a possible remedy to extreme agency conflicts (*Manne, 1965*), essentially serving as an "external court of last resort" (*Fama and Jensen, 1983a*). However, just like threats of legal action, the possibility of a hostile takeover is unlikely to deter milder forms of opportunistic behavior.

Fama (1980) emphasizes the importance of the labor market for corporate agents: Directors and executives who develop a reputation for harming shareholders may face reduced prospects for future employment. Fos and Tsoutsoura (2014) and Zhang (2021) find that this is the case for directors. Bebchuk et al. (2002b), however, mention that directors could have incentives to develop a reputation for not challenging executives: Boards or executives engaged in opportunistic

^{5.} Approximately half of all publicly traded US corporations, and many foreign companies, are incorporated in Delaware; virtually all US corporations that register out of state do so in Delaware (Gilson et al., 2011). Moreover, according to Moon (2021), Delaware corporate law has an outsized impact, with at least one author calling Delaware the "de facto national corporate law maker."

^{6.} This situation can be seen as a form of incomplete contracting, where a baseline level of performance is enforceable by courts but good performance is not (*Hart and Moore, 2008*).

behavior may prefer to propose directors who will support their actions. Labor market disciplining could also be weaker for executives. *Bebchuk et al.* (2002b) and *Edmans et al.* (2013) point out that most CEO positions are filled internally and that few CEOs go on to serve as the CEO of another firm, which may weaken the disciplining effects of employment prospects for CEOs.

Similar remarks apply to other disciplining mechanisms, such as product market competition (*Chhaochharia et al., 2017*). Firms that operate in highly competitive industries may have little room for managerial slack, as minor inefficiencies may be sufficient to make them uncompetitive. Therefore, corporate officers have incentives to use corporate resources optimally, for fear of being driven out of business and losing their job. The pressure from competition alone may not be sufficient, however, for firms that enjoy monopoly-like status, a point emphasized by *Giroud and Mueller (2010; 2011)*.

Given the limitations of external disciplining mechanisms, corporate governance remains a key mechanism to preserve and improve shareholder value at most firms.

3. Shareholder value maximization and alternative doctrines

A logical goal of for-profit corporations is to maximize shareholder value. Maximizing shareholder value, however, is not the same as maximizing the next quarter's profits. Since stock ownership grants rights over all future profits, shareholder value maximization needs to consider both short-term and long-term profits. Seeking long-term profits requires considering stakeholders' interests: Opportunistic behavior today reduces trust tomorrow, potentially hurting the firm's ability to attract customers, employees, suppliers, and even investors (e.g., *Cornell and Shapiro*, 1987; Bénabou and Tirole, 2010). Hence, shareholder value maximization looks beyond the immediate future and accounts for stakeholders' interests to the extent that they matter for profits (Bebchuk and Tallarita, 2021).

If, however, stakeholder interests do not matter for corporate profits, directors and executives might ignore them under shareholder value maximization. This situation is likely to arise for stakeholders whose interests are not covered by contracts or legal protections. CO_2 emissions are one example: Affected stakeholders do not own the atmosphere, making it harder to obtain compensation for being subjected to global warming. When no contracts or legal protections exist, the corporation may harm stakeholders without compensation, that is, impose negative externalities on them. While targeted government action or the creation of new markets (e.g., cap and trade) can help address negative externalities, some argue for an alternative solution—namely, changing the goal of for-profit corporations from shareholder value maximization to shareholder welfarism or stakeholder capitalism.

While negative externalities are an important issue, the proposed alternatives may be ineffective remedies for reasons we discuss below. Moreover, the alternatives to shareholder value maximization

have much broader implications, since they advocate for diverting corporate resources to advance broader social goals. We note that the application of both shareholder welfarism and stakeholder capitalism may require for-profit corporations to deviate from their very purpose, which may have legal ramifications.⁷

In what follows, we shed more light on the difficulties likely to plague the application of the two alternative doctrines.

3.1. Shareholder welfarism

Shareholders, as individuals, may have both financial and altruistic motives. The traditional view, exemplified by *Friedman* (1970), is that giving is best pursued outside the corporation (see also *Morgan and Tumlinson, 2019*). According to this approach, executives and directors should maximize shareholder value and refrain from pursuing social goals not tied to shareholder value. Shareholders can then determine, on an individual basis, how much of their own money to allocate to social and environmental causes they care about.

Shareholder welfarism (*Hart and Zingales, 2017*) highlights the potential limits of this view. Like Friedman, Hart and Zingales recognize that shareholders, as individuals, may have a combination of financial and altruistic objectives. Hart and Zingales also start from the premise that the corporation is run for the benefit of shareholders.

Shareholder welfarism departs from shareholder value maximization by arguing that giving collectively, through the corporation, is preferable from the shareholders' point of view when the corporation can achieve social goals more cheaply than individuals or other organizations can. Crucially, shareholders willingly give because of altruistic motives. The reduction in profits is not imposed on them by corporate officers, a key concern in Friedman's essay. For instance, if shareholders are widely concerned about pollution, transferring profits to shareholders to spend on cleaning up the company's pollution might not be as efficient as the company reducing its polluting activities. Moreover, if the damage caused by the company's pollution is irreversible, individual shareholder altruism may even be impractical.

While shareholder welfarism might appear effective for addressing negative externalities, there are a few major challenges with its application. Continuing with our example above, many shareholders might not approve the reduction in a company's polluting activities if this means lower company profits and lower payouts to shareholders. On a practical level, under shareholder welfarism, shareholders need to agree not only on how to deal with negative externalities but also on how to allocate company resources to other social goals. Shareholders are unlikely to hold unanimous views on which environmental, social, and governance (ESG) concerns matter most or how much to invest to address them, making it hard to gather majority support for a proposal. Fama (2021) points out that the problem becomes even more acute when shareholders must weigh competing

^{7.} To their credit, proponents of shareholder welfarism recognize the potential tension between the doctrine and current corporate law. See *Hart and Zingales (2022)* for a discussion

^{8.} In the taxonomy of Bénabou and Tirole (2010), Friedman (1970) was concerned with insider-initiated philanthropy, in which corporate officers squander shareholder wealth by spending it on their favored causes. Hart and Zingales (2017) advocate delegated philanthropy by shareholders. Interestingly, Friedman (1970) allowed that delegated philanthropy could be justified in certain circumstances, citing tax efficiency as one example.

ESG objectives. Suppose a developed country firm can cut its carbon footprint by onshoring jobs that were previously performed in a distant, low-income country. Also, assume that the jobs are well-paid by local standards. How should the balance be struck between reducing emissions and alleviating poverty?

Moreover, "firms choose where they sit on the ESG spectrum" based on "prices for products and securities with different ESG characteristics," as *Fama* (2021) points out. If ESG preferences are strong enough across consumers and investors to address pollution through market prices, shareholder welfarism potentially becomes redundant, as it will be in the company's best financial interest to fix the externality.⁹

3.2. Stakeholder capitalism

Another alternative to shareholder value maximization consists of maximizing *stakeholder* value; employees, customers, local communities, and suppliers are all potential stakeholders. ¹⁰ The recent Business Roundtable "Statement on the Purpose of a Corporation" ("BRT Statement"), signed by the CEOs of some of the world's largest corporations, is a well-known declaration associated with stakeholder capitalism. The Davos Manifesto is another one. ¹¹

Stakeholder capitalism advocates for an ambitious change of doctrine: The corporation should be run for the benefit of all its stakeholders rather than shareholders only. Three fundamental questions emerge. Who are the stakeholders of a firm? How should their interests be weighted? And, crucially, who gets to make those decisions?

Sternberg (2004) notes that stakeholder is typically defined broadly. For instance, Eurofound defines a stakeholder as "an individual, group of persons, or organization that can affect or is affected by the decisions of another organization." Similarly, the BRT Statement takes a wide view, specifically citing customers, employees, suppliers, communities in which the business operates, and shareholders. Broad definitions can lead to paradoxes: For instance, should a competitor, which is affected by the decisions of the firm, be classified as a stakeholder? Even with a narrower definition, billions of people can be classified as stakeholders of a large corporation either because they consume its products or because they live in places where it conducts business.

This ambiguity opens the door to conflicts of interest. *Tirole (2001)* notes that "[m]anagement can almost always rationalize [an] action by invoking its impact on the welfare of *some* stakeholder." Since stakeholder capitalism grants considerable discretion to corporate officers, including the power to favor other constituencies over shareholders, it can reduce the accountability of management to shareholders. Consistent with this hypothesis, *Flugum and Souther (2021)* find

^{9.} In their model, Hart and Zingales (2017) rule out this mechanism by assuming that investors only care about corporate actions that they directly influence, and therefore feel responsible for. In particular, an investor is willing to pay full price when investing in a company with a poor ESG profile, since the investor had no control over past corporate actions.

^{10.} Lipton (2019) frames stakeholder capitalism not only as an alternative to shareholder value maximization, but also government regulation.

^{11.} Davos Manifesto 2020: The Universal Purpose of a Company in the Fourth Industrial Revolution," World Economic Forum, December 2019.

^{12.} Stakeholder," Eurofound, August 2019.

^{13.} Business Roundtable Statement, August 2019.

that firms with poor financial performance are more likely to cite stakeholder-focused objectives in their public communications around earnings announcements.

Recent evidence suggests that stakeholderism, even when evaluated on its own terms, falls short of achieving better outcomes for stakeholders. *Bebchuk and Tallarita* (2021) contend that the recent support for stakeholder capitalism is driven by reputational concerns rather than increased concern for stakeholders. ¹⁴ In particular, the signatories of the BRT Statement have not meaningfully changed their corporate governance practices. In most cases, the BRT Statement was not approved by the directors at signatory firms, was not mentioned in proxy materials to shareholders, and did not result in any updates to corporate governance guidelines, which are still shareholder-centric. *Raghunandan and Rajgopal* (2021) report that, relative to peer firms, BRT signatories are more likely to have high carbon emissions and commit labor and environmental offenses.

Some shareholders of BRT signatories filed resolutions to increase the power of stakeholders. *Bebchuk and Tallarita (2021)* mention that one proposal advocated the inclusion of non-management employees on the company's board of directors to better represent the interests of employees, an important group of stakeholders. Yet, *all* affected BRT signatories either submitted no-action requests to the SEC to have these types of resolutions dismissed, or recommended voting against them (Section IV.A in *Bebchuk and Tallarita, 2021*). Tellingly, one firm declared that "[b]ecause the Statement memorialized the Company's current commitment to stakeholders, *there were no changes to policy, practices, or documents* that the Company needed to implement."

Other shareholder proposals have sought the conversion of for-profit corporations to *public benefit corporations*.¹⁵ The public benefit corporation is a Delaware hybrid corporate entity that allows corporate directors and officers to consider the interests of both shareholders and other stakeholders. Concretely, it requires directors to balance "(1) the pecuniary interests of the stockholders, (2) the best interests of those materially affected by the corporation's conduct, and (3) the specific public benefit or public benefits identified in its certificate of incorporation" (*Murray, 2014*). The public benefit corporate form appears to be suitable for stakeholder capitalism (e.g., *Strine, 2014*). However, adoption remains limited. All signatories of the BRT Statement continue to operate as traditional for-profit corporations, and all signatories targeted by shareholder proposals to initiate a conversion opposed them.

Even companies willing to convert to a public benefit corporation face difficulties. *Dorf et al. (2021)* mention the case of Etsy, which contemplated reorganizing as a Delaware public benefit corporation but was forced to backtrack in the face of shareholder opposition.¹⁶ More broadly,

^{14.} Companion papers include Bebchuk and Tallarita (2020) as well as Bebchuk et al. (2021).

^{15.} Public benefit corporations also consider profits, but do not have to maximize them. Some legal scholars have argued that even for-profit companies do not have to maximize shareholder value. For instance, *Stout (2001)* says that "corporate law in Delaware, like corporate law elsewhere, generally allows directors to redirect wealth from shareholders to other stakeholders." However, *Atkins et al. (2019)*, who cite more recent jurisprudence and scholarly work, convincingly argue that for-profit corporations are legally obligated to prioritize shareholder value.

^{16. &}quot;Etsy Soars 22% as the Activists Circle with Strategic Suggestions," Barron's, May 2017. "Etsy Gives Up B Corp Status to Maintain Corporate Structure," eCommerceBytes, November 2017.

both *Murray (2014)* and *Dorf et al. (2021)* mention that legal ambiguity regarding directors' obligations is an obstacle to widespread adoption; simply put, the law does not clearly define what constitutes proper "balancing" of the interests of all the involved stakeholders. By contrast, corporate law provides clear principles that guide the governance of for-profit companies (*Atkins et al., 2019*): Directors and executives must prioritize the economic interests of shareholders, and shareholders keep corporate agents accountable through voting.

Shareholder and stakeholder interests will often coincide; shareholders have incentives to maintain good relationships with employees, suppliers, and communities in which the firm operates. However, some conflicts are inevitable, and since corporate officers are ultimately accountable to shareholders and bound by their fiduciary duties, they have little incentive to favor other stakeholders over shareholders when their interests conflict (*Bebchuk and Tallarita*, 2021; *Bebchuk et al.*, 2021). For this reason, stakeholderism is unlikely to properly address the concerns of stakeholders. Furthermore, from the point of view of shareholders, stakeholder capitalism can be harmful by weakening accountability among corporate officers or by diverting corporate resources from value-maximizing projects.

Moreover, shareholder value maximization clarifies what investors should expect from directors and managers of a for-profit corporation: actions that seek to increase shareholder value. Neither shareholder welfarism nor stakeholder capitalism provides such clarity. Under shareholder welfarism, a minority shareholder could be expropriated if a majority of shareholders decides to allocate corporate resources to a social cause he or she does not approve of. The ongoing changes in the composition of shareholders of publicly traded companies create uncertainty over what type of social goals will be favored by the majority of shareholders at a future vote. Under stakeholder capitalism, shareholders could also be expropriated if directors or executives divert corporate resources to favored constituencies rather than shareholders.

In summary, while shareholder value maximization might appear narrowly focused on the interests of shareholders, it actually needs to consider the interests of a broad set of stakeholders, such as employees, customers, and suppliers, as they matter for the long-term success of the company. Therefore, by focusing on maximizing shareholder value, corporate governance can benefit both shareholders and other stakeholders while avoiding the lack of accountability and transparency that come with amorphous goals.

We now focus on the link between corporate governance and shareholder value maximization. Before turning to the empirical evidence measuring the impact of different governance practices, we outline a simple framework that links corporate governance to firm value.

4. Corporate Governance and Stock Prices

The valuation equation offers a useful framework to think about the impact of governance on stock prices. The equation tells us that stock prices reflect the present value of expected future cash flows per share:

$$p_t = \sum_{k=1}^{\infty} \frac{E[CF_{t+k}]}{(1+r)^k}$$

Governance can affect market values through two channels: by changing expectations about future **c**ash **f**lows or by changing discount **r**ates. Stronger governance can lower the systematic risk of a firm, thus reducing its discount rate and increasing its share price. Hence, valuation theory predicts that improvements in corporate governance can lead to higher company valuations and lower future expected returns.

The empirical evidence on the link between corporate governance and expected stock returns is mixed. In one of the most-cited studies on corporate governance, *Gompers et al.* (2003) find that stocks with better governance had abnormally high returns in the 1990s after controlling for the three factors of *Fama and French* (1993) and momentum. However, *Bebchuk et al.* (2013) fail to find abnormal returns in the 2000s; *Frankenreiter et al.* (2021) also highlight data issues with the initial study and show that the findings are considerably weaker after correcting for erroneous data. The absence of a strong cross-sectional relation between corporate governance and expected returns is what we would expect if weak governance exposes firms to higher systematic risk that is already reflected in their exposure to well-known drivers of returns, such as size, value, and profitability. It is also what we would expect if weak governance exposes firms only to higher idiosyncratic (diversifiable) risk.

The valuation framework also suggests that improved corporate governance can increase share prices by increasing expected cash flows. For instance, excessive executive compensation or related-party transactions may act as a wealth transfer from shareholders to management; more broadly, lack of director and executive accountability can result in managerial slack and lower operating performance. Corporate governance activities aimed at curbing those practices can result in higher future cash flows and a price increase that benefits shareholders. This notion is supported by several studies documenting a positive association between governance and operating performance (e.g., Core et al., 2006; Bhagat and Bolton, 2008).

As we discuss in the sections that follow, the academic literature finds support for the prediction of valuation theory that there should be a link between corporate governance and company valuations. For example, *Gompers et al.* (2003) and *Bebchuk et al.* (2009) find that companies with higher corporate governance scores have higher market-to-book equity ratios. *Bebchuk et al.* (2009) also show that improvements in governance are associated with positive changes

in firm value. In these empirical studies, firm value is typically defined as market equity scaled by an accounting variable such as book equity.

An important caveat of these studies is that firms choose their governance structure based on their characteristics, and the effects of governance provisions may vary with firm characteristics. Unfortunately, few studies on corporate governance and company valuations have access to as-good-as-random variation in the choice of governance practices, a point emphasized in previous literature surveys (e.g., Adams et al., 2010 for directors; Edmans et al., 2017 for executive compensation). Measuring the causal effect of governance on firm value is therefore challenging. Wintoki et al. (2012) provide a comprehensive account of the inference issues specific to corporate governance.

Having reviewed the theoretical and empirical relation between overall corporate governance and stock prices, we now turn to examining the empirical evidence on a few specific aspects of corporate governance: directors, antitakeover provisions, and executive compensation.

5. Directors

Directors, as the representatives of shareholders, play a central role in corporate governance. The mechanisms for board election and refreshment matter, as they determine how effectively boards can be held accountable by shareholders. Board characteristics, such as independence and experience, are also important. This section surveys the evidence on how corporate electoral rules and board characteristics affect firm value.

5.1. Electoral rules

Director elections occur annually as part of the annual shareholder meeting. The entire board is up for election, or a part of it; in the latter case, the board is *staggered* or *classified*. Candidates are typically proposed by a nominating committee of independent board members (*Coates*, 2007; *Mourning*, 2007). Shareholders can also influence the process, either by recommending candidates to the board or by nominating candidates directly. At the end of 2018, 71% of S&P 500 companies allowed groups of shareholders meeting ownership thresholds to put nominees on the company's proxy material, which is sent to all shareholders before the annual shareholder meeting (*Gregory et al.*, 2019). Dissident shareholders can also prepare their own proxy material to solicit votes in favor of their nominees, though this option is costly.

Elections can be contested or uncontested. An uncontested election occurs when *N* candidates are nominated for *N* open slots. Voting can be plurality-based or majority-based. In uncontested elections with plurality voting, a nominee who gets a single vote automatically gets elected; shareholders can only vote in support of candidates or withhold their vote. Therefore, boards could simply nominate themselves, receive a single vote each, and get re-elected.¹⁷

Under a majority-based standard, nominees must get at least 50% of the shareholder votes cast to be elected, even in the absence of a contender; a withheld vote effectively becomes a vote against the nominee. If enough votes are withheld, a "failed" election occurs, which typically results in the removal or resignation of defeated directors. Majority voting in uncontested elections is typically paired with plurality voting in contested elections. The combination allows shareholders to express their dissatisfaction with the proposed slate in an uncontested selection, while reducing the possibility of failed contested elections. ¹⁹

Overall, firms with electoral rules that increase director accountability seem to have higher valuations. Cai et al. (2013) find that adoption of majority voting surged from less than 20% of S&P 500 firms to more than 60% during the 2006–2007 period. They also find significant announcement returns for firms that adopt majority voting as a result of activist pressure, though not for firms that do so voluntarily. Choi et al. (2016) provide a potential explanation for these results: Firms that adopted majority voting late and involuntarily likely stood to benefit the most from increased board accountability, while early adopters may have been more shareholder-friendly to begin with. Ertimur et al. (2015) use a regression discontinuity design to study close votes on shareholder proposals to implement majority voting. They find that the passage of proposals leads to significant, positive announcement returns.

Another important type of voting is *cumulative voting*. Under cumulative voting, if *N* seats are open, shareholders get *N* votes each, which they can allocate across open seats as they see fit. For instance, a single shareholder could cast her *N* votes in favor of a single candidate. *Yermack* (2010) states that cumulative voting facilitates the election of dissident directors, while *Bhagat* and *Brickley* (1984) find negative announcement returns when cumulative voting is eliminated. Cumulative voting may therefore be an additional tool to increase board accountability.

5.2. Board independence

Not all board members are independent. For instance, *Larcker and Tayan (2016)* report that the CEO served as the chairman of the board in half of large US companies in 2015. However, regulations, stock exchange rules (*Coates, 2007; Linck et al., 2009*), and pressure from investors have resulted in boards with more outside directors. In a sample of S&P Composite 1500 firms from 2000 and 2013, *Masulis and Zhang (2019)* find that the average board has nine members, of whom seven are outside directors.

Fama and Jensen (1983a) argue that both types of directors have a role to play: Inside directors have a vantage view of the firm's challenges and opportunities, while outside directors can provide additional expertise and address issues (e.g., audit, executive compensation) that would result in conflicts of interest if undertaken by insiders. For example, under NYSE and NASDAQ rules, the audit committee, a subset of directors who oversee the auditing of the firm's accounting, must be composed entirely of independent directors. The rationale for these

^{18.} The effect is not immediate, however. When an uncontested election fails under a majority standard, so-called holdover rules come into play: See *Choi et al.* (2016) and footnote 133 in *Mourning* (2007).

^{19.} For instance, under majority voting, a three-way race for a seat in which candidates gather 40%, 30%, and 30% of the votes would result in a failed election, since the leading candidate did not meet the 50% threshold.

rules is that director independence is assumed to reduce conflicts between shareholders and management.

The literature shows that independent directors add value and help reduce agency conflicts. Weisbach (1988) finds that outsider-dominated boards lead to higher CEO turnover than insider-dominated boards. Moreover, announcement returns when turnover is publicly revealed suggest that directors increase firm value by removing underperforming CEOs. Rosenstein and Wyatt (1990) find positive returns when the appointment of outside directors is announced. Fahlenbrach et al. (2017) find that the unexpected departures of independent directors are associated with lower operating profitability and more frequent bad events, such as litigation or M&A deals with low announcement returns for the acquirer. These studies, however, do not imply that the effect is causal. For instance, the appointment of outside directors may be a manifestation of broader positive changes in the company (omitted-variable bias), while the departure of outside directors may be caused by the anticipation of poor future firm performance (reverse causality). Indeed, in additional tests based on director deaths, Fahlenbrach et al. (2017) find that their results are likely driven by reverse causality.

Changes in regulations provide natural experiments that studies of director independence can exploit. In the US, following the passage of the Sarbanes-Oxley Act in 2002, the NYSE and NASDAQ started requiring a majority of directors to be independent. Noncompliant firms had to hire new independent directors. *Guo and Masulis (2014)* find increased CEO turnover-to-performance sensitivity among noncompliant firms after the enactment of the rule, consistent with more independent boards providing more effective monitoring.

Coles et al. (2014) approach the question from a different angle. They distinguish between co-opted directors, who are appointed after the current CEO takesthe role, and non-co-opted directors, who were present before (and, therefore, appointed the current CEO). The authors argue that since the CEO can influence the appointment of new directors, new directors are more likely to "owe" the current CEO, hence the "co-opted" designation. Both inside and outside directors can be labeled as co-opted.

The authors measure the monitoring effectiveness of the board using four metrics: forced CEO turnover, CEO pay, pay-to-performance sensitivity, and investment. Although investment is not inherently good or bad, later studies (e.g., *Pan et al., 2016*) confirm that when boards are co-opted, increased investment by CEOs is wasteful and reflects agency problems. *Coles et al. (2014)* conjecture that a board with more non-co-opted independent directors will increase CEO turnover, decrease CEO pay, increase pay-to-performance sensitivity, and reduce investment. The data support all four hypotheses.

However, the fraction of co-opted directors may be jointly determined with other variables that affect firm value. The Sarbanes-Oxley reforms constitute an outside shock that can be used to circumvent the issue. Since new directors are co-opted by definition, the rule change increased

the co-opted fraction of the board among noncompliant firms, which had to hire additional independent directors. The effect of co-option on CEO pay and turnover-to-performance sensitivity continues to hold, although the effect on pay-to-performance and investment is no longer reliably different from zero.

Fauver et al. (2017) study board reforms in 41 countries starting in the 1990s. Following the publication of the Cadbury Report in the UK in 1992, many countries enacted reforms aimed at increasing board independence, both in general and in specific committees (e.g., the audit committee), similar to Sarbanes-Oxley in the US. The study finds increases in firm value and operating performance following the reforms. Interestingly, the effect is stronger in the case of comply-or-explain reforms, which do not impose a one-size-fits-all requirement on firms, and in countries with weak governance, where external sources of monitoring (such as the court system) might be weaker.

Finally, director deaths provide an unfortunate but useful source of variation in board structure, as sudden director deaths are unlikely to be driven by anticipated changes in firm value or omitted variables. *Nguyen and Nielsen* (2010) find that the sudden death of an independent director is associated with an average stock price drop of 0.85%, though the effect is only marginally reliable at the 10% level in some event windows. Importantly, the drop is smaller for independent directors appointed by the current CEO, consistent with the evidence of *Coles et al.* (2014) on co-option. Events short of death can also lower director performance. *Masulis and Zhang* (2019) find that distractions suffered by independent directors lower the firm's operating performance. Here, too, the effect is stronger when distractions affect non-co-opted directors. Distractions can either be personal (e.g., illness) or professional (e.g., serving on the board of another company undergoing a major restructuring).

Overall, the literature confirms that independent directors can help reduce agency costs and increase firm value. This appears especially true when independent directors are not co-opted.

5.3. Board experience and expertise

One key question is whether the advice provided by directors has a causal effect on firm performance. As with other governance variables, reverse causality is possible. Do better directors make firms better, or do better firms hire better directors? The literature suggests that director expertise helps improve firm performance.

Huang et al. (2014) and Field and Mkrtchyan (2017) both find that director expertise can improve the firm's acquisition performance. Huang et al. (2014) report that boards with current or former investment bankers are 13% more likely to engage in acquisitions. They also find that, especially for large deals, the presence of investment banker directors is associated with lower takeover premiums and M&A fees. The results hold even when the sample is restricted to include only

directors who have served for at least three years, making it unlikely that the results are driven by firms hiring investment banker directors in anticipation of M&A activity.

Field and Mkrtchyan (2017) consider the acquisition experience of independent directors, which they define as participating in an acquisition as a director or executive in the past 10 years. For a firm with a nine-person board, the cumulative abnormal return in a three-day window around an acquisition announcement is 0.25% higher for every additional director with acquisition experience. Moreover, the effect is stronger when conditioned on the profitability of past acquisitions: Directors with a history of participation in successful acquisitions have a more positive effect.

Chen et al. (2020) find that following the normalization of trade relations between the US and China in 2000, firms started appointing more outside directors with China-specific knowledge. The presence of directors with China-related experience on the board is associated with better post-deal operating performance and announcement returns for investments (M&A, joint ventures, alliances) involving Chinese firms. They also find that for firms directly affected by trade with China (e.g., manufacturing firms), the appointment of outside directors with China-related expertise results in significantly higher announcement returns than for directors with no such expertise.

Finally, *Illiev and Roth (2020)* provide evidence that directors help shape another important part of firm strategy, namely, its approach to corporate social responsibility (CSR). The starting point of the study is that directors of US firms who sit on the board of a foreign firm acquire knowledge about the foreign regulatory environment. This knowledge may then prove useful ("spill over") to their US role. The study focuses on a specific channel for knowledge spillovers: new sustainability regulations in foreign jurisdictions. A firm with at least one director serving in the affected jurisdiction is deemed to be treated ("sustainability shock"); the other firms form the control group. The authors then compare the CSR performance of treated firms after the shock to the CSR performance in the control group. The hypothesis is that directors in the treated group will pay more attention to CSR issues and have additional knowledge about how to improve CSR performance in a cost-efficient way. The findings support the main hypothesis. Firms exposed to a sustainability shock improve their performance not only on environmental but also on social issues. These improvements correlate with improved sales, profitability, and productivity. The effects are economically meaningful: Sales rise by 4.5% on average following a sustainability shock.

In summary, the empirical literature on the link between corporate directors and firm value provides three key findings: Firms with electoral rules that increase director accountability have higher valuations, independent directors add value and help reduce agency conflicts, and director expertise helps improve firm performance.

6. Takeover markets and antitakeover provisions

The effect of antitakeover provisions (ATPs) on firm value is the subject of vigorous debate in the governance literature. ATPs are designed to raise the cost of takeovers not approved by incumbent directors at the target firm. Opponents of ATPs claim that the increased costs make it harder to take control and remove a malfeasant or incompetent board, thus eliminating a potential disciplining mechanism. Certain ATPs (notably, staggered boards) can also make it harder for shareholders to remove underperforming board members. Proponents of ATPs counter that ATPs can help protect shareholder value by signaling stability to key suppliers and customers and by holding off hostile takeovers to allow the board to negotiate a higher sale price.²⁰

Although ATPs take many forms, modern takeover defenses mostly rely on two legal devices.²¹ The first is the combination of a staggered board with a poison pill. A staggered board (also known as a classified board) is evenly split between several director classes (normally three), and only one class is up for election at the annual shareholder meeting (*Frankenreiter et al.*, 2021). Therefore, a hostile acquirer that takes control of the company needs at least two elections, with a one-year delay between them, to dislodge the majority of incumbent directors. *Bebchuk et al.* (2002a) emphasize that on their own, staggered boards delay rather than prevent changes of control. Even if there is uncertainty around the exact timing, a bidder that acquires a majority stake knows with certainty that it will eventually gain control of the board.²²

Shareholder rights plans, known as poison pills, work by diluting the ownership of a hostile acquirer. For instance, a pill could be designed so that when the bidder acquires more than 10% of the target's shares, all current shareholders (except the hostile bidder) get rights to acquire additional company stock at a discount, making it more expensive for a prospective acquirer to obtain control of the target company. As a result, it is virtually unheard of for a bidder to trigger a pill and subsequently complete a takeover (*Bebchuk et al., 2003*). While the number of companies that explicitly keep a shareholder rights plan in place have decreased, the board at most companies can unilaterally adopt a poison pill on short notice—creating a so-called "shadow" poison pill (*Coates, 2000*; *Daines and Klausner, 2001*; *Sokolyk, 2011*). Based on interviews with practitioners, *Bebchuk et al. (2009*) state that having an explicit ("clear day") poison pill in place can send a stronger signal "that the board will 'not go easy' if an unsolicited offer is made."

Bebchuk et al. (2002a) and Amihud et al. (2018) emphasize that staggered boards and poison pills are much more powerful when used together. As outlined above, a staggered board can only delay a motivated acquirer from gaining control of the board. Similarly, poison pills used alone have vulnerabilities. Notably, a hostile acquirer can launch a proxy contest and seek to

^{20.} Two additional, connected pro-ATP arguments are that ATPs insulate management from short-termist, activist shareholders (see *Lipton et al., 2016*, for an archetypical contribution and *Bebchuk, 2021* for a critique), and that they give management additional discretion to protect stakeholders (see *Bebchuk et al., 2021* for a discussion and refutation).

^{21.} Gompers et al. (2003) list 24 governance provisions, most of which are relevant for takeovers. Bebchuk et al. (2009) note that many provisions were made obsolete by the development of more powerful takeover defenses, including poison pills and staggered boards. Bebchuk and Cohen (2005) list some of the key legal precedents that helped facilitate the widespread usage of poison pills.

^{22.} Staggered boards can be adopted through amendments to the corporate charter or bylaws. *Bebchuk and Cohen (2005)* emphasize that charter-based staggered boards, which are impossible for shareholders to eliminate unilaterally, are both more common and more potent.

persuade current shareholders to elect a director slate that will remove the pill. However, if the board is staggered, the acquirer would need to wait for shareholders to replace one-third of the board at each election, until a majority of directors approve the deal. This delay increases uncertainty and risk. For instance, if the bidder needs to make a firm offer to get its directors elected, it is effectively writing a multiyear put option on the target's stock (*Bebchuk et al., 2002a*).

Dual-class shares constitute another increasingly common takeover defense (*Lund*, *2019*). A typical structure consists of both Class A and Class B shares that have the same cash flow rights, but Class A shares have 10 times the voting power of Class B shares (*Gompers et al.*, *2010*, *Lund*, *2019*). Class A shares are typically held by insiders and often not traded. The effect on takeovers is obvious: Even if shareholders holding the majority of cash flow rights approve an acquisition, insiders holding class A shares can veto it simply by refusing to tender their shares. *Gompers et al.* (*2010*) thus describe dual-class shares as the "most extreme" antitakeover device. The same veto power applies to any corporate decision on which shareholders vote, opening the door to conflicts between inside and outside shareholders (*Masulis et al.*, *2009*); inside shareholders face tensions between their interests as principals (for instance, retaining control of the company) and their obligations as agents of all shareholders.

In terms of prevalence, *Cremers et al. (2017)* report that in their sample of US companies, staggered board prevalence rose from approximately 20% at the end of 1970s to 60% in the 1990s, before declining to 35% in 2015; this is consistent with increased opposition from institutional investors to staggered boards since the 1990s (*Bebchuk et al., 2002a*). *Bebchuk et al. (2009*) find that poison pill prevalence was around 55% in a sample of US stocks between 1990 and 2002, while *Catan (2019)* reports that less than 10% of firms in 2014 maintained an explicit poison pill. The shift was driven by a growing number of shareholder resolutions to redeem poison pills and voting guidelines from proxy advising services that penalize directors who approve poison pills (see *Catan, 2019* and *Johnson et al., 2021*). Finally, although dual-class share structures were historically discouraged in the US by exchange rules, *Gompers et al. (2010)* find that 6% of listed firms had dual-class shares between 1995 and 2002, while *Lund (2019)* reports that almost one quarter of US IPOs in 2015 involved companies with more than one share class.

What is the impact of ATPs on shareholder value? Overall, standard economic theory predicts that ATPs increase agency costs, but leaves open the possibility that the benefits from ATPs may outweigh costs in some circumstances. For example, *Johnson et al.* (2015) argue that ATPs can increase value by signaling to key suppliers and customers that the executives they currently deal with are likely to remain in place—the so-called "bonding hypothesis." While academic studies find mixed evidence regarding the impact of antitakeover devices on shareholder value for young firms (*Cremers et al.*, 2020; *Johnson et al.*, 2022 find a positive impact), the literature is remarkably consistent in finding a negative impact for older firms. Since corporate structures tend to be sticky, even if one grants the premise that antitakeover devices might add value

^{23.} See Klein et al. (1978) about post-contractual opportunistic behavior in the context of relationship-specific investments. The bonding hypothesis does not explain why sweeping antitakeover provisions are used as commitment devices rather than more targeted instruments, or why new management would automatically care less about the reputational costs of reneging on prior commitments made to external stakeholders. Note also that vertical integration (e.g., Grossman and Hart, 1986) is a potential remedy when the opportunistic behavior concerns key suppliers or clients.

early in the firm's life cycle, such provisions may become harmful with the passage of time. Bebchuk and Kastiel (2017) argue forcefully against dual-class share structures without a sunset provision on these grounds. We now turn to the empirical literature on the impact of specific ATPs on firm value.

6.1. Staggered boards and poison pills

Despite the importance of the interaction between poison pills and staggered boards, most studies measure their impact separately, or as part of an index. The G index (*Gompers et al.*, 2003) incorporates 24 provisions that reduce shareholder rights, adding one point per enacted provision. *Bebchuk et al.* (2009) devised the E index, by equally weighting six provisions of the G index that measure managerial entrenchment. Both indices include staggered boards and poison pills, and higher values of both indices are associated with lower firm value in a sample of US stocks in the 1990s (and early 2000s for *Bebchuk et al.*, 2009).

The literature on poison pills generally finds negative effects on firm value. In addition to the existence of shadow pills, one issue that complicates inference is that the adoption of the pill may reveal positive news about the likelihood of an acquisition. Therefore, a regression of abnormal returns on poison pill adoption could result in a positive but spurious relation. Early event studies, such as *Ryngaert* (1988) and *Comment and Schwert* (1995), note that focusing on firms already subject to acquisition rumors before pill adoption may help circumvent this problem. Both studies find negative abnormal returns surrounding poison pill adoption in such a subsample. For example, *Comment and Schwert* (1995) find a 2.1% reduction in firm value in a three-day window centered on the announcement date. These findings are largely echoed by studies based on cross-sectional or panel data regressions: *Bebchuk et al.* (2009) and *Cremers et al.* (2014) both find negative associations between having a poison pill in place and firm value. Based on a sample of US stocks from 1985–2006, *Cremers et al.* (2014) find that the value of firms with a poison pill in place is 5% lower on average.

On the other side of the debate, *Eldar and Wittry (2021)* find that poison pills adoptions in the wake of COVID-19 volatility generated positive abnormal returns. The authors note that, consistent with the voting guidelines of proxy advisors, the pills in their sample had a high ownership threshold to be triggered (20%) and less than a three-year shelf life, which suggests that their effect on managerial entrenchment may have been weak. In another recent paper, *Cremers et al. (2021)* find that judicial developments that strengthened the validity of shadow pills for firms incorporated in Delaware increased firm value. The effect is positive for all firms, but even stronger for firms in strategic alliances or with key client or supplier relationships. Consistent with the remarks of *Bebchuk et al. (2009)*, it is possible that the availability of poison pills increases firm value, but that pre-emptively adopting one may send a negative signal regarding managerial entrenchment.

On the staggered board front, *Bebchuk and Cohen (2005)* and *Faleye (2007)* find that staggered boards reliably reduce firm value. The reductions are economically significant: In their baseline specifications, *Bebchuk and Cohen (2005)* find value reductions in the range of 15–20%. *Faleye (2007)* shows that staggered boards also reduce value among complex firms, defined as firms with high R&D spending or intangible assets. These findings are inconsistent with the argument that staggered boards allow management to better focus on complex, long-term projects. Moreover, *Faleye (2007)* documents that staggered boards are associated with lower pay-to-performance sensitivity for CEOs and lower executive turnover, which suggest that classified boards reduce management accountability.

Both *Bebchuk and Cohen (2005)* and *Faleye (2007)* rely on variation across firms at a given point in time: Their estimates are based on differences in value between firms that have a classified board and those that don't. *Amihud et al. (2018)* argue that this methodology may uncover spurious relations when confounding variables are not controlled for, and that the findings of *Bebchuk and Cohen (2005)* are no longer statistically reliable when a list of additional control variables is added to the regressions.

There are at least three ways to address this criticism. One approach is to rely on variations in staggered board status over time, within the same firm. Since changes in staggered board status are rare, a long sample is required to detect a relation. *Cremers et al. (2017)*, using a sample of US stocks from 1978–2015, find that adoptions of staggered boards increase firm value, especially for firms with high R&D intensity or strategic relationships with stakeholders. However, *Amihud et al. (2018)* note that regressions of firm value on staggered board status with firm fixed effects effectively assume omitted firm characteristics are unchanged over three decades, an unrealistic assumption. Moreover, *Amihud et al. (2020)* highlight that in *Cremers et al. (2017)*, staggering the board leads on average to increases in firm value after two or three years but not after one year.²⁴ It seems implausible that the economic effects of changes in board status are only reflected in firm valuation after two years, especially given the scrutiny that staggered boards arrangements have received from proxy advisors and institutional investors over the last decades.

Event studies that exploit judicial developments provide another avenue to circumvent omitted-variable bias. *Cohen and Wang (2013)* exploit a 2010 natural experiment in which conflicting rulings from the Delaware Court of Chancery and the Delaware Supreme Court weakened, then strengthened staggered boards. The first ruling shortened the minimal delay needed for a hostile bidder to take control of a staggered board by allowing shareholders to hold annual meetings and elections in short succession.²⁵ The second ruling essentially undid the first. *Cohen and Wang (2013)* find that the announcement returns around both rulings are consistent with staggered boards lowering firm value. Another natural experiment comes from a 1990 Massachusetts law, which required boards to be staggered by default. While *Faleye (2007)*

^{24.} In regressions of changes in firm value on changes in staggered board status.

^{25.} In the case *Cohen and Wang (2013)* look at, elections could have been held on September 2010 and January 2011 rather than September 2010 and September 2011, allowing a hostile bidder to take control of the board (two thirds of directors) in four months.

does not find a reliable relation, *Cremers et al.* (2017) and *Daines et al.* (2021) both find that the law increased the value of Massachusetts firms relative to similar firms in other states. Consistent with *Johnson et al.* (2015) and *Dasgupta et al.* (2016), *Daines et al.* (2021) find that the positive effect of staggered boards on firm value and operating performance is driven by younger firms and firms that spend more on R&D. Out-of-sample tests on IRRC data (the data used by, among others, *Gompers et al.*, 2003 and *Bebchuk et al.*, 2009) also find a positive link between classified boards and firm value for younger firms. However, the same tests find a negative link for firms with more liquid shares (which tend to be larger corporations) and mature firms. One interpretation is that ATPs might add value early in the firm's life cycle but cease to do so (or become detrimental) over time.

Regression discontinuity designs provide another way to estimate the impact of ATPs. Suppose a shareholder resolution to de-stagger the board is submitted at different firms. Firms where the resolution gets 20% shareholder support may differ markedly on unobservable characteristics from firms where the resolution gets 80% support. However, this is unlikely to be the case for firms where support is 49.9% vs. 50.1%. By comparing resolutions that fail or pass by a narrow margin, one can get a cleaner estimate of the effect of ATPs on firm value. Note that since shareholder resolutions are typically not binding, market returns will reflect expectations that the proposal may not be implemented. A proposal that would increase firm value by 4% but has a 25% chance of being implemented if passed could lead to an announcement return of 1% if shareholders vote in favor. Therefore, the measured announcement returns may underestimate the true impact of governance improvements.

Using a regression discontinuity design, *Cuñat et al.* (2012) find that the passage of resolutions to remove G index provisions that reduce shareholders rights (*Gompers et al., 2003*) are associated with a 2.8% increase in shareholder value. *Cuñat et al.* (2020), who focus on ATPs more specifically, find similar effects. Both studies include many proposals to de-stagger boards or remove poison pills in their sample. *Cuñat et al.* (2020) also find that ATPs do not result in higher takeover premiums, invalidating a common argument made in their favor, namely, that ATPs reinforce the bargaining power of the board relative to would-be acquirers. ²⁶ One potential explanation for the finding is that antitakeover devices reduce the number of potential bidders for the target company.

6.2. Dual class shares

Like other antitakeover devices, the effect of dual-class shares on firm value is not obvious from theoretical arguments alone. *Lund (2019)* argues that dual-class shares may benefit the shareholders of both Class A (high voting power) and Class B shares (low voting power) by improving firm governance, especially if both classes trade in the market. If highly informed shareholders believe that they can use their voting power to increase firm value, a separating equilibrium occurs: Highly informed investors concentrate in Class A shares, bidding up their price in the

^{26.} Cuñat et al. (2020) use the change in price from four weeks prior to announcement until the completion of the merger as their baseline measure of the takeover premium. Their results hold for different event windows. They also hold when cumulative abnormal returns are measured controlling for market, size, value, and momentum exposures. The only mergers considered are those occurring within five years of a vote about a shareholder proposal to remove antitakeover provisions.

process, and the remaining investors buy the cheaper Class B shares. Shareholders with high information or those willing to exert more active oversight can do so without having their voting power diluted by apathetic or uninformed shareholders. The resulting improvements in firm governance may increase firm value, benefiting both Class A and Class B shareholders since they have the same cash flow rights.

However, in their sample of US firms from 1995 to 2002, *Gompers et al. (2010)* find that for 85% of firms with more than one share class, at least one class of shares is untraded. If insiders hold untraded shares with high voting power while only low-voting-power stock trades in the market, the sorting mechanism outlined above is impossible. *Lund (2019)* contends that, historically, dual-class structures have mostly been used to entrench insiders, which is suggestive of a negative effect on firm value. Still, even in dual-class structures, insiders often have sizeable amounts of cash flow rights in absolute terms, which may attenuate agency conflicts by aligning their interests with those of outside shareholders.

Gompers et al. (2010) find that dual-class structures have a negative association with firm value, though statistical noise prevents strong inference.²⁷ Their results suggest large gaps between the cash flow and voting rights of insiders are associated with lower firm value. Another interesting result is that firms with dual-class shares do not exhibit reliably different returns from other firms, consistent with other studies finding that governance variables do not predict expected returns (Bebchuk et al., 2013).

In a sample of US IPOs in the 1990s, *Smart and Zutter (2003)* find that firms that IPO with dual-class structures are less likely to get acquired in the next five years but receive higher takeover premiums when they are acquired. They also find that dual-class firms trade at lower multiples than single-class firms and interpret their overall findings as consistent with managerial entrenchment.²⁸ In addition, *Smart et al. (2008)* find that poor stock market returns forecast CEO turnover at single-class firms, a link that is absent at dual-class firms, suggesting that dual-class structures weaken the association between firm performance and CEO turnover. *Masulis et al. (2009)* find that dual-class structures are more likely to engage in value-destroying acquisitions or poor investments, and that their cash holdings are valued less in the market, consistent with high agency costs and managerial entrenchment. *Nenova (2003)* estimates the private benefits of control in a global sample of dual-class stocks and finds economically large values: around 5% to 10% of market capitalization, in developed markets, and higher values (up to 50%) in emerging markets. These values are consistent with large agency costs at dual-class firms.

Unifications of dual-share classes provide another line of evidence. One caveat highlighted by *Smart et al. (2008)* is that unifications often involve multiple transactions, which are not always announced publicly. Another issue is that the decision to alter the capital structure is likely driven by its anticipated effect on firm value—a form of selection bias. If firms that unify their

^{27.} The study uses instrumental variables for dual-class status in order to address endogeneity concerns, leading to large increases in standard errors on voting and wedge variables, another factor that prevents strong inference.

^{28.} Similar to *Gompers et al. (2010), Smart et al. (2008)* find that dual-class IPOs exhibit similar average returns and volatility to single-class IPOs in the first three or five years after issuance.

shares stand to benefit the most from the change, findings of positive abnormal returns may not extend to all firms.

Nevertheless, in a small sample of 37 unifications, *Smart et al.* (2008) find large positive abnormal returns in a five-day window around the effective date of the unification. Looking instead at 178 recapitalizations of single-class structures in dual-class shares, *Dimitrov and Jain* (2006) find no reliably abnormal returns in the days surrounding the event, though they find large positive abnormal returns in the next four years as well as improvements in operating performance. *Bauguess et al.* (2011) find that operating performance improves after dual-class recapitalizations in which insiders sell a large part of their cash flow rights. This argument is consistent with the firm pursuing riskier, value-creating projects that would be considered overly risky by undiversified controlling shareholders (similar to the logic of *Fama and Jensen, 1985*).

Finally, other mechanisms, such as stock pyramids and cross ownership, can also create a wedge between cash flow rights and voting rights (see *Bebchuk et al., 2000* for an overview), and several studies consider them alongside or instead of dual-class structures. *Claessens et al.* (2002) and *Lins* (2003) both find that insiders having disproportionate control rights reduces firm value, while *Lin et al.* (2011a, 2011b) find that gaps between insider cash flow and voting rights are associated with larger borrowing costs. This complementary evidence suggests that dual-class shares that create large deviations from one-share, one- vote likely lead to high agency costs and lower firm values.

7. Executive compensation and incentives

Previous sections emphasized the board's role in advising and monitoring executives to ensure that they act in the best interests of shareholders. Another responsibility of the board is setting executive pay. This role is typically fulfilled by a compensation committee composed of independent directors. In the US, this structure became mandatory following the passage of Sarbanes-Oxley (*Coates, 2007*). Since 2011, shareholders also cast a nonbinding vote annually to approve or reject the proposed compensation package (*Thomas et al., 2011*). In what follows, we use "CEO" and "executive" interchangeably.

Since the actions of executives can create or destroy value on a large scale (*Edmans et al., 2009*; 2017), poorly designed incentives can potentially result in sizeable value destruction (*Bebchuk and Fried, 2010*). Combining these two considerations, the goal of executive compensation is to induce the CEO to take actions that maximize share value at the minimal possible cost to shareholders (*Jensen and Murphy, 1990a*). One intuitive principle is that the sensitivity of pay (or wealth) to performance should be strong enough for the CEO to pick value-maximizing actions. For example, a fixed salary that does not vary with success or failure is unlikely to be optimal.

In Section 7.1, we discuss the empirical composition of CEO pay. Section 7.2 and 7.3 then discuss the measurement of incentives and performance, and how they affect the composition of pay. Section 7.4 concludes with some empirical evidence about the impact of pay practices on shareholder value.

7.1. Pay composition

Core et al. (2002) highlight three components of a CEO's financial incentives: "(1) flow compensation, which is the total of the CEO's annual salary, bonus, new equity grants, and other compensation; (2) changes in the value of the CEO's portfolio of stock and options; and (3) the possibility that the market's assessment of the CEO's human capital will decrease following termination because of poor performance or a change in control." We focus on (1) and (2) in what follows.

Regarding the composition of the first item, *Edmans et al.* (2017) find that, on average, equity and option awards made up 60% of total pay for S&P 500 CEOs in 2014. Options used to dominate, but equity grants are now more prevalent; the respective percentages in 2014 were 16% and 44%. Bonuses make up about 25% of the total, with the rest being composed of a cash salary and items such as pensions.

Most equity and option awards are restricted: There is a vesting period before their realized value belongs to the CEO. Therefore, the realized value of the awards at the time of vesting is uncertain and exposed to the stock price, giving the CEO incentives to increase share value. In addition, performance vesting, based on share price or accounting metrics, is increasingly popular in restricted equity grants (*Bettis et al., 2018*). Performance vesting typically combines minimal performance requirements with additional rewards for exceeding the threshold, further increasing the exposure of CEO pay to share price or accounting performance.

Bebchuk and Fried (2010) emphasize that once options and equity awards vest, there are few restrictions on selling, and CEOs do tend to sell large amounts of their firm's stock.²⁹ One consequence highlighted by the authors is that shareholders may need to include equity compensation on a continuing basis to "replenish" the executive's exposure to the firm's stock price. Nevertheless, CEOs typically retain large amounts of exposure to their firm's performance through both options and equity. Edmans et al. (2017) find that the average exposure of S&P 500 CEOs in 2014 was equivalent to a \$70 million equity position in their firm.³⁰

7.2. Measuring incentives

The proper measure of incentives depends on how the CEO's impact scales up with firm value (*Edmans et al, 2017*). In *Jensen and Meckling (1976*), the agency problem between the CEO and shareholders arises from a combination of perk consumption and partial firm ownership by the CEO. For example, if the CEO owns 5% of the firm and spends \$10,000 of corporate funds on unnecessary perks, she destroys \$10,000 of shareholder value but only shoulders \$500 of the loss—reaping a net benefit of \$9,500. Under this framework, incentives are measured by

^{29.} Since CEOs hold large amounts of both firm-specific human capital and stock exposure to their own firm, their subjective valuation of the stock may be lower than that of diversified shareholder, giving them strong incentives to sell at market prices.

^{30.} Edmans et al. (2017) calculate effective ownership as (number of shares held + number of options held × average option delta)/ (number of shares outstanding). Murphy (2013) follows a similar methodology.

percentage ownership, and only complete ownership of the firm by the CEO fully eliminates agency problems. *Jensen and Murphy (1990a)* measured the effective firm ownership of US CEOs as a mere 0.325% between 1974 and 1986. This low percentage, which seemingly indicates weak incentives, led *Jensen and Murphy (1990b)* to thunder that US CEOs are "paid like bureaucrats." *Edmans et al. (2017)* document a similar picture in recent decades: Effective ownership in 2014 was 0.34% for S&P 500 CEOs.

Edmans et al. (2008) suggest the perk consumption model may be flawed because many CEO actions are likely to scale up with firm size. In their framework, a natural measure of incentives is the absolute dollar amount that the CEO gains from a 1% increase in firm value (see also Hall and Liebman, 1998; Baker and Hall, 2004). Since even a 1% increase in firm value may be worth hundreds of millions of dollars, if the CEO captures a fraction of that gain, her incentives may be strong enough to run the firm optimally. If this view is correct, the large-dollar effective-ownership figures documented by Edmans et al. (2017) are a better measure of incentives.

Importantly, this view provides a potential explanation for the historical prevalence of options in CEO compensation packages. Suppose the board has the choice between awarding to the CEO \$100 of equities or \$100 of at-the-money call options on the firm's stock. Since options provide more equity exposure per dollar spent, the latter choice allows the firm to provide stronger dollar incentives to the CEO at the same price. More recently, equity grants with performance-based vesting (*Bettis et al., 2018*) have started replacing options. Since the awards tie the quantity of shares received to performance, their payoffs are more "levered" (on share price or firm performance) than conventional, time-vesting stock grants.

7.3. Measuring performance

Observed CEO pay packages are not composed solely of high-powered equity instruments, in part because the stock price is an imperfect measure of the CEO's performance. While a firm's stock price reflects the impact of its CEO's actions, the stock price also depends on factors that the CEO does not control (*Murphy, 2013*). *Cochrane (2011)* points out that variations in investors' taste for risk drive a large portion of stock price movements. A CEO could do a sterling job and the stock price could still crater because a financial crisis causes investors to flee stocks in general. Conversely, an incompetent CEO with strong equity incentives could receive immense payoffs if the firm's stock price is buoyed by investors with a high risk appetite.

Holmström (1979) considers a principal-agent problem in which the agent's performance depends on random factors besides effort. In his model, the optimal pay contract can be improved by using, in addition to final output, variables that are informative about the link between effort and output. One way to do so is through benchmarking and relative-performance evaluation: A 20% stock return is more informative about CEO performance when peer firms have a –10% return than when they have a 20% return as well.

The use of relative-performance metrics in CEO compensation is common, but not universal, and often used alongside absolute performance metrics (*Gong et al., 2011*; *Bettis et al., 2014*). For instance, *Bettis et al.* (2018) find that 48% of firms granting performance-based equity use at least one relative performance metric. *Edmans et al.* (2017) document several theoretical reasons for why relative benchmarking may not always be desirable. Representative peers are hard to define, and there might be too few of them to establish a reliable benchmark. *Jayaraman et al.* (2021) use textual analysis on 10-K filings to identify peers based on product similarity. They find that the sensitivity of CEO compensation to peer performance decreases with the number of peers; when more peers are available to estimate common shocks, pay contracts tend to filter out those common shocks to a greater extent.

Another way of leveraging Holmström's insight is to use accounting variables, such as sales or profit margins, which may be more directly influenced by CEO performance. *Edmans et al.* (2017) report that approximately 25% of S&P 500 CEO compensation in 2014 came from bonuses and long-term incentive plans, whose payoffs are often tied to operating performance. The performance thresholds in performance equity grants may also depend on accounting variables. The tradeoff is that precisely because accounting variables are more directly influenced by the CEO than the stock price, they can be manipulated to yield better pay for the CEO (*Jensen*, 2003; *Morse et al.*, 2011). More dangerously, poorly designed incentives can lead to harmful changes in CEO behavior, such as cutting R&D expenses and other expenses to boost measured earnings (*Bizjak et al*, 2015; *Bennett et al.*, 2017). *Bebchuk and Tallarita* (2022) emphasize that these issues also apply to ESG metrics. In particular, they document the use of vague measures like "employee engagement" and "trust and credibility in the community," which are potentially even more susceptible to manipulation because they are harder to quantify.

In summary, there is no perfect measure of incentives or CEO performance. Real-world CEO pay packages often use both accounting variables and stock prices to measure performance, which is typically a blend of relative and absolute metrics. We now turn to the empirical evidence on how certain pay provisions influence shareholder value.

7.4. CEO pay and shareholder value

Flammer and Bansal (2017) consider a sample of 808 pay-related shareholder proposals at US public firms between 1997 and 2012. Specifically, the resolutions proposed the adoption of pay packages emphasizing restricted equity and option grants, as well as long-term incentive plans. Using a regression discontinuity design, they find abnormal returns of about 1–1.5% when proposals pass by a close vote. They also find that operating performance metrics (e.g., return on assets and sales growth) increase in the years following a successful vote. One caveat is that their findings are based on a relatively small number of close-call proposals (less than 100), so their results may not apply broadly. This could be the case, in particular, if short-termist companies are more likely to be targeted with long-term pay proposals. However, the findings support

the notion that aligning CEO incentives with long-term value creation through executive pay can increase shareholder value. The measured effects are also consistent with the earlier findings of *Kumar and Sopariwala* (1992) and *Core and Larcker* (2002) that long-term incentive plans have a positive impact on both stock returns and operating performance.

Cronqvist and Fahlenbrach (2013) analyze a sample of 20 leveraged buyouts of public firms by private- equity sponsors with a strong track record. Target firms in their sample had publicly traded debt and therefore needed to keep publicly reporting on their financials following the acquisition. The authors compare the CEO pay contracts before and after the deal. The rationale is that private-equity sponsors are more likely to choose optimal pay contracts because they do not face the collective action problems of dispersed shareholders.

Overall, Cronqvist and Fahlenbrach find that the level and composition of CEO pay remains relatively similar. However, two key differences arise. First, performance metrics move away from metrics that can easily be gamed (such as employee engagement) toward accounting metrics that are harder to manipulate (such as EBITDA). Second, options are converted to restricted equity grants, and the grants are modified to include performance vesting rather than time-based vesting. Similarly, *Bettis et al.* (2010) find that performance-based vesting of equity grants is more common at public firms with more outside directors, suggestive of a link between strong monitoring and performance targets in compensation.

Finally, *Cuñat et al.* (2016) consider 250 cases of proposals to adopt a say-on-pay policy at S&P Composite 1500 firms between 2006 and 2010.³¹ Essentially, a say-on-pay policy allows shareholders to cast a nonbinding vote at regular intervals to approve or reject the CEO compensation package. *Cuñat et al.* (2016) find abnormal returns of 2.4% when say-on-pay proposals are approved by a small margin, as well as subsequent improvements in operating performance. However, the CEO pay level and composition do not change significantly. The authors interpret their findings as suggesting that say-on-pay reinforces monitoring by providing shareholders with an additional channel to express their assessment of the current CEO. Direct monitoring of executive compensation by shareholders may therefore reduce agency conflicts.

8. Conclusion and implications for investment stewardship

This review has a number of potential implications for investment stewardship. First, the goal of investment stewardship should not be to micromanage portfolio companies; this would defeat the very purpose of the corporate structure. As emphasized by *Fama and Jensen (1983a)* and *Goshen and Squire (2017)*, the corporate structure allows dispersed shareholders to delegate day-to-day operations, through the board, to executives with specialized skills. The literature suggests that to reap the full benefits of specialization while controlling agency costs, the focus should be on strengthening the board of directors, whose responsibility it is to monitor how

^{31.} Say-on-pay policies became mandatory following the passage of the Dodd-Frank Wall Street Reform and Consumer Protection Act in 2010.

the company is run. This conclusion applies even more to asset managers, who may face legal restrictions on how much direct control they can exert on portfolio companies.

Second, the literature has a lot to say on what constitutes a strong board of directors. Overall, a board with more independent directors appears beneficial to shareholders. Since independence is not simply defined by insider-outsider status (*Fracassi and Tate, 2012*; *Coles et al., 2014*), scrutinizing directors for ties to the CEO that may present conflicts of interest can help better assess directors' independence. In addition to independence, board experience and qualifications should be an important area of focus when assessing board composition.

A third implication is that governance provisions that restrict shareholder rights have no clear justification. The empirical evidence is consistent with the simple agency model outlined in Section 2: When directors and executives are not accountable for their performance, shareholder value suffers. Therefore, we believe that investors seeking shareholder value maximization should oppose antitakeover devices, such as poison pills, staggered boards, and dual class structures, and support electoral rules, like majority or cumulative voting, that reinforce director accountability.

A fourth implication is that investors should be clear on the corporate objectives that governance seeks to advance. Good governance requires measurable, mutually consistent objectives; otherwise, shareholders cannot evaluate the performance of directors and executives and hold them accountable. Since unchecked managerial power threatens the interests of both shareholders and other stakeholders, doctrines like stakeholder capitalism appear unlikely to improve on shareholder value maximization.

References

Adams, Renée B., Benjamin E. Hermalin, and Michael S. Weisbach. 2010. "The Role of Boards of Directors in Corporate Governance: A Conceptual Framework and Survey." *Journal of Economic Literature* 48, no. 1: 58–107.

Alchian, Armen A., and Harold Demsetz. 1972. "Production, Information Costs, and Economic Organization." *The American Economic Review* 62, no. 5: 777–795.

Amihud, Yakov, and Stoyan Stoyanov. 2017. "Do Staggered Boards Harm Shareholders?" *Journal of Financial Economics* 123, no. 2: 432–439.

Amihud, Yakov, Markus Schmid, and Steven Davidoff Solomon. 2018. "Settling the Staggered Board Debate." *University of Pennsylvania Law Review* 166, no. 6: 1475–1510.

Amihud, Yakov, Markus Schmid, and Steven Davidoff Solomon. 2020. "Is the Staggered Board Debate Really Settled?: A Coda." *University of Pennsylvania Law Review* Online 168: 113–127.

Atkins, Peter, Marc Gerber, and Edward Micheletti. 2019. "Social Responsibility and Enlightened Shareholder Primacy: Views from the Courtroom and Boardroom." *Harvard Law School Forum on Corporate Governance* (blog). February 21, 2019.

Baker, George P., and Brian J. Hall. 2004. "CEO Incentives and Firm Size." *Journal of Labor Economics* 22, no. 4: 767–798.

Bauguess, Scott W., Myron B. Slovin, and Marie E. Sushka. 2012. "Large Shareholder Diversification, Corporate Risk Taking, and the Benefits of Changing to Differential Voting Rights." *Journal of Banking & Finance* 36, no. 4: 1244–1253.

Bebchuk, Lucian Arye, John C. Coates IV, and Guhan Subramanian. 2002a. "The Powerful Antitakeover Force of Staggered Boards: Theory, Evidence & Policy." *Stanford Law Review* 54, no 5: 887–951.

Bebchuk, Lucian Arye, Jesse M. Fried, and David I. Walker. 2002b. "Managerial Power and Rent Extraction in the Design of Executive Compensation." *University of Chicago Law Review* 69, no. 3: 751–846.

Bebchuk, Lucian A., and Jesse M. Fried. 2004. "Pay without Performance: The Unfulfilled Promise of Executive Compensation." Harvard University Press.

Bebchuk, Lucian A., and Alma Cohen. 2005. "The Costs of Entrenched Boards." *Journal of Financial Economics* 78, no. 2: 409–433.

Bebchuk, Lucian A. ""The Myth of the Shareholder Franchise." Virginia Law Review. 93 (2007): 675.

Bebchuk, Lucian, Alma Cohen, and Allen Ferrell. 2009. "What Matters in Corporate Governance?" *Review of Financial Studies* 22, no. 2: 783–827.

Bebchuk, Lucian A., and Jesse M. Fried. 2010. "Paying for Long-Term Performance." *University of Pennsylvania Law Review*: 1915–1959.

Bebchuk, Lucian A., Alma Cohen, and Charles C.Y. Wang. 2013. "Learning and the Disappearing Association Between Governance and Returns." *Journal of Financial Economics* 108, no. 2: 323–348.

Bebchuk, Lucian A. 2013. "The Myth that Insulating Boards Serves Long-Term Value." *Columbia Law Review* 113, no. 6: 1637–1694.

Bebchuk, Lucian A., and Kobi Kastiel. 2017. "The Untenable Case for Perpetual Dual-Class Stock." Virginia Law Review 103: 585.

Bebchuk, Lucian A., and Roberto Tallarita. 2020. "The Illusory Promise of Stakeholder Governance." Cornell Law Review 106: 91.

Bebchuk, Lucian A., and Roberto Tallarita. 2021. "Will Corporations Deliver Value to All Stakeholders?" SSRN Working Paper 3899421.

Bebchuk, Lucian A., Kobi Kastiel, and Roberto Tallarita. 2021. "For Whom Corporate Leaders Bargain." Forthcoming, Southern California Law Review 93.

Bebchuk, Lucian A. 2021. "Don't Let the Short-Termism Bogeyman Scare You." *Harvard Law School Forum on Corporate Governance* (blog). February 3, 2021.

Bebchuk, Lucian A., and Roberto Tallarita. 2022. "The Perils and Questionable Promise of ESG-Based Compensation." Available at SSRN 4048003.

Bennett, Benjamin, J. Carr Bettis, Radhakrishnan Gopalan, and Todd Milbourn. 2017. "Compensation Goals and Firm Performance." *Journal of Financial Economics* 124, no. 2: 307–330.

Berger, David J. "In Search of Lost Time: What if Delaware Had Not Adopted Shareholder Primacy?" in *The Corporate Contract in Changing Times*, edited by Steven Davidoff Solomon and Randall Stuart Thomas. Chicago: The University of Chicago Press, 2019.

Berle, Adolf and Gardiner Means. *The Modern Corporation and Private Property*. New York: The MacMillan Company, 1933.

Berrini, Krystal, Allie Rutherford, and Eric Sumberg. 2020. "Institutional Investors' Overboarding Policies for Directors." *Harvard Law School Forum on Corporate Governance* (blog). April 30, 2020.

Bettis, Carr, John Bizjak, Jeffrey Coles, and Swaminathan Kalpathy. 2010. "Stock and Option Grants with Performance-Based Vesting Provisions." *Review of Financial Studies* 23, no. 10: 3849–3888.

Bettis, J. Carr, John M. Bizjak, Jeffrey L. Coles, and Brian Young. 2014. "The Presence, Value, and Incentive Properties of Relative Performance Evaluation in Executive Compensation Contracts." SSRN Working Paper 2392861.

Bettis, J. Carr, John Bizjak, Jeffrey L. Coles, and Swaminathan Kalpathy. 2018. "Performance-Vesting Provisions in Executive Compensation." *Journal of Accounting and Economics* 66, no. 1: 194–221.

Bhagat, Sanjai, and James A. Brickley. 1984. "Cumulative Voting: The Value of Minority Shareholder Voting Rights." *Journal of Law and Economics* 27, no. 2: 339–365.

Bhagat, Sanjai, and Brian Bolton. 2008. "Corporate Governance and Firm Performance." *Journal of Corporate Finance* 14, no. 3: 257–273.

Bizjak, John M., Rachel M. Hayes, and Swaminathan L. Kalpathy. 2015. "Performance-Contingent Executive Compensation and Managerial Behavior." Available at SSRN 2519246.

Cai, Jay, Jacqueline L. Garner, and Ralph A. Walkling. 2013. "A Paper Tiger? An Empirical Analysis of Majority Voting." *Journal of Corporate Finance* 21: 119–135.

Catan, Emiliano M. 2019. "The Insignificance of Clear-Day Poison Pills." *Journal of Legal Studies* 48, no. 1: 1–44.

Cen, Ling, Sudipto Dasgupta, and Rik Sen. 2016. "Discipline or Disruption? Stakeholder Relationships and the Effect of Takeover Threat." *Management Science* 62, no. 10: 2820–2841.

Chen, Sheng-Syan, Yan-Shing Chen, Jun-Koo Kang, and Shu-Cing Peng. 2020. "Board Structure, Director Expertise, and Advisory Role of Outside Directors." *Journal of Financial Economics* 138, no. 2: 483–503.

Chhaochharia, Vidhi, Yaniv Grinstein, Gustavo Grullon, and Roni Michaely. 2017. "Product Market Competition and Internal Governance: Evidence from the Sarbanes–Oxley Act." *Management Science* 63, no. 5: 1405–1424.

Choi, Stephen J., Jill E. Fisch, Marcel Kahan, and Edward B. Rock. 2016. "Does Majority Voting Improve Board Accountability?" *University of Chicago Law Review* 83, no. 3: 1119–1180.

Coase, Ronald H. 1937. "The Nature of the Firm." Economica 4, no. 16: 386–405.

Coase, Ronald H. 1960. "The Problem of Social Cost." Journal of Law and Economics 3: 1–44.

Coates IV, John C. 2000. "Takeover Defenses in the Shadow of the Pill: A Critique of the Scientific Evidence." *Texas Law Review* 79, no. 2: 271.

Coates IV, John. 2007. "The Goals and Promise of the Sarbanes-Oxley Act." *Journal of Economic Perspectives* 21, no. 1: 91–116.

Cochrane, John. 2011. "Presidential Address: Discount Rates." *Journal of Finance* 66, no. 4: 1047–1108.

Cohen, Alma, and Charles C.Y. Wang. 2013. "How Do Staggered Boards Affect Shareholder Value? Evidence from a Natural Experiment." *Journal of Financial Economics* 110, no. 3: 627–641.

Cohen, Alma, and Charles C.Y. Wang. 2017. "Reexamining Staggered Boards and Shareholder Value." *Journal of Financial Economics* 125, no. 3: 637–647.

Coles, Jeffrey L., Naveen D. Daniel, and Lalitha Naveen. "Co-opted boards." Review of Financial Studies 27, no. 6 (2014): 1751–1796.

Core, John E., and David F. Larcker. 2002. "Performance Consequences of Mandatory Increases in Executive Stock Ownership." *Journal of Financial Economics* 64, no. 3: 317–340.

Core, John E., Wayne R. Guay, and Tjomme O. Rusticus. 2006. "Does Weak Governance Cause Weak Stock Returns? An Examination of Firm Operating Performance and Investors' Expectations." *Journal of Finance* 61, no. 2: 655–687.

Cornell, Bradford, and Alan C. Shapiro. 1987. "Corporate Stakeholders and Corporate Finance." *Financial Management* 16, no. 1: 5–14.

Cotton, Christopher, Brent Hickman, and Joseph Price. Forthcoming "Affirmative Action and Human Capital Investment: Evidence from a Randomized Field Experiment." *Journal of Labor Economics* 40, no 1.

Cremers, K. J. Martijn and Litov, Lubomir P. and Sepe, Simone M. 2021. "Shadow Pills, Pill Policy, and Firm Value" SSRN Working Paper 3303798.

Cremers, K. J. Martijn, and Allen Ferrell. 2014. "Thirty Years of Shareholder Rights and Firm Value." *Journal of Finance* 69, no. 3: 1167–1196.

Cremers, K. J. Martijn, Lubomir P. Litov, and Simone M. Sepe. 2017. "Staggered Boards and Long-Term Firm Value, Revisited." *Journal of Financial Economics* 126, no. 2: 422–444.

Cremers, K. J. Martijn, Saura Masconale, and Simone M. Sepe. 2016. "Commitment and Entrenchment in Corporate Governance." *Northwestern University Law Review* 110, no. 4: 727–810.

Cremers, K. J. Martijn, Simone M. Sepe, and Saura Masconale. 2019. "Is the Staggered Board Debate Really Settled?" *University of Pennsylvania Law Review* 167, no. 1: 9–45.

Cremers, Martijn, Beni Lauterbach, and Anete Pajuste. 2020. "The Life-Cycle of Dual Class Firm Valuation." European Corporate Governance Institute (ECGI)-Finance Working Paper 550.

Cronqvist, Henrik, and Rüdiger Fahlenbrach. "CEO Contract Design: How Do Strong Principals Do It?" Journal of Financial Economics 108, no. 3 (2013): 659–674.

Cuñat, Vicente, Mireia Giné, and Maria Guadalupe. 2012. "The Vote is Cast: The Effect of Corporate Governance on Shareholder Value." *Journal of Finance* 67, no. 5: 1943–1977.

Cuñat, Vicente, Mireia Giné, and Maria Guadalupe. 2016. "Say Pays! Shareholder Voice and Firm Performance." *Journal of Finance* 67, no. 5: 1943–1977.

Cuñat, Vicente, Mireia Giné, and Maria Guadalupe. 2020. "Price and Probability: Decomposing the Takeover Effects of Anti-Takeover Provisions." *Journal of Finance* 75, no. 5: 2591–2629.

Daines, Robert, and Michael Klausner. 2001. "Do IPO charters maximize firm value? Antitakeover protection in IPOs." *Journal of Law, Economics, and Organization* 17, no. 1: 83–120.

Daines, R., Li, S. X., & Wang, Charles C. Y. 2021. "Can Staggered Boards Improve Value? Causal Evidence from Massachusetts." SSRN Working Paper 3871342.

Dimitrov, Valentin, and Prem C. Jain. 2006. "Recapitalization of one class of common stock into dual-class: Growth and long-run stock returns." *Journal of Corporate Finance* 12, no. 2: 342–366.

Dorff, Michael B., James Hicks, and Steven Davidoff Solomon. 2021. "The Future or Fancy? An Empirical Study of Public Benefit Corporations." *Harvard Business Law Review* 11: 113–158.

Edmans, Alex, Xavier Gabaix, and Augustin Landier. 2009. "A Multiplicative Model of Optimal CEO Incentives in Market Equilibrium." *Review of Financial Studies* 22, no. 12: 4881–4917.

Edmans, Alex, Xavier Gabaix, and Dirk Jenter. 2017. "Executive Compensation: A Survey of Theory and Evidence." The Handbook of the Economics of Corporate Governance no. 1: 383–539.

Edmans, Alex, Tom Gosling, and Dirk Jenter. 2021. "CEO Compensation: Evidence from the Field." SSRN Working Paper 3877391.

Eldar, Ofer, and Michael D. Wittry. 2021. "Crisis Poison Pills." Review of Corporate Finance Studies 10, no. 1: 204–251.

Ertimur, Yonca, Fabrizio Ferri, and David Oesch. 2015. "Does the Director Election System Matter? Evidence from Majority Voting." *Review of Accounting Studies* 20, no. 1: 1–41.

Fahlenbrach, Rüdiger, Angie Low, and René M. Stulz. 2017. "Do Independent Director Departures Predict Future Bad Events." *Review of Financial Studies* 30, no. 7: 2313–2358.

Faleye, Olubunmi. 2007. "Classified Boards, Firm Value, and Managerial Entrenchment." *Journal of Financial Economics* 83, no. 2: 501–529.

Fama, Eugene F. 1980. "Agency problems and the theory of the firm." *Journal of Political Economy* 88, no. 2: 288–307.

Fama, Eugene F., and Michael C. Jensen. 1983a. "Separation of Ownership and Control." The Journal of Law and Economics 26, no. 2: 301–325.

Fama, Eugene F., and Michael C. Jensen. 1983b. "Agency Problems and Residual Claims." The Journal of Law and Economics 26, no. 2: 327–349.

Fama, Eugene F., and Michael C. Jensen. 1985. "Organizational Forms and Investment Decisions." Journal of Financial Economics 14, no. 1: 101–119.

Fama, Eugene F., and Kenneth R. French. 1993. "The Cross-Section of Expected Stock Returns." Journal of Finance 47, no. 2: 427–465.

Fama, Eugene F. 2014. "Two Pillars of Asset Pricing." *American Economic Review* 104, no. 6: 1467–1485.

Fama, Eugene F., and Kenneth R. French. 2015. "A Five-Factor Asset Pricing Model." *Journal of Financial Economics* 116, no. 1: 1–22.

Fama, Eugene F. 2021. "Contract Costs, Stakeholder Capitalism, and ESG." *European Financial Management* 27, no. 2: 189–195.

Fauver, Larry, Mingyi Hung, Xi Li, and Alvaro G. Taboada. 2017. "Board Reforms and Firm Value: Worldwide Evidence." *Journal of Financial Economics* 125, no. 1: 120–142.

Field, Laura Casares, and Anahit Mkrtchyan. 2017. "The Effect of Director Experience on Acquisition Performance." *Journal of Financial Economics* 123, no. 3: 488–511.

Flammer, Caroline, and Pratima Bansal. 2017. "Does a Long-Term Orientation Create Value? Evidence from a Regression Discontinuity." Strategic Management Journal 38, no. 9: 1827–1847.

Flugum, Ryan and Matthew Southern. 2021. "Stakeholder Value: A Convenient Excuse for Underperforming Managers?" SSRN Working Paper 3725828.

Fos, Vyacheslav, and Margarita Tsoutsoura. 2014. "Shareholder Democracy in Play: Career Consequences of Proxy Contests." *Journal of Financial Economics* 114, no. 2: 316–340.

Fracassi, Cesare, and Geoffrey Tate. 2012. "External Networking and Internal Firm Governance." Journal of Finance 67, no. 1: 153–194.

Frankenreiter, Jens, Cathy Hwang, Yaron Nili, and Eric L. Talley. "Cleaning Corporate Governance." *University of Pennsylvania Law Review*, Forthcoming (2021).

Friedman, Milton. 1970. "The Social Responsibility of Business is to Increase its Profits." New York Times, September 13, 1970.

Gilson, Ronald J., Henry Hansmann, and Mariana Pargendler. 2011. "Regulatory Dualism as a Development Strategy: Corporate Reform in Brazil, the United States, and the European Union." Stanford Law Review 63, no. 3: 475–538.

Gompers, Paul A., Joy L. Ishii, and Andrew Metrick. 2003. "Corporate Governance and Equity Prices." Quarterly Journal of Economics 118, no. 1: 107–155.

Gompers, Paul A., Joy Ishii, and Andrew Metrick. 2010. "Extreme Governance: An Analysis of Dual-Class Firms in the United States." *Review of Financial Studies* 23, no. 3: 1051–1088.

Gong, Guojin, Laura Yue Li, and Jae Yong Shin. 2011. "Relative Performance Evaluation and Related Peer Groups in Executive Compensation Contracts." *Accounting Review* 86, no. 3: 1007–1043.

Gregory, Holly J., Rebecca Grapsas and Claire Holland. 2019. "The Latest on Proxy Access." Harvard Law School Forum on Corporate Governance (blog). February 1, 2019.

Griffith, Sean J. 2020. "Opt-In Stewardship: Toward an Optimal Delegation of Mutual Fund Voting Authority." *Texas Law Review* 98, no. 6: 983–1047.

Grossman, Sanford J., and Oliver D. Hart. 1986. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." *Journal of Political Economy* 94, no. 4: 691–719.

Guay, Wayne R., John E. Core, and David F. Larcker. 2002. "Executive Equity Compensation and Incentives: A Survey." Available at SSRN 276425.

Guo, Lixiong, and Ronald W. Masulis. 2015. "Board structure and monitoring: New evidence from CEO turnovers." *Review of Financial Studies* 28, no. 10: 2770–2811.

Hart, Oliver. 2017. "Incomplete Contracts and Control." *American Economic Review* 107, no. 7: 1731–52.

Hart, Oliver, and John Moore. 1990. "Property Rights and the Nature of the Firm." *Journal of Political Economy* 98, no. 6: 1119–1158.

Hart, Oliver, and John Moore. 2008. "Contracts as Reference Points." Quarterly Journal of Economics 123, no. 1: 1–48.

Hart, Oliver, and Luigi Zingales. 2017. "Companies Should Maximize Shareholder Welfare Not Market Value." *Journal of Law, Finance, and Accounting* 2, no. 2: 247–275.

Hart, Oliver D., and Luigi Zingales. 2022. The New Corporate Governance. No. w29975. National Bureau of Economic Research.

Holmström, Bengt. 1979. "Moral Hazard and Observability." *Bell Journal of Economics*: 10, no. 1: 74–91.

Huang, Qianqian, Feng Jiang, Erik Lie, and Ke Yang. 2014. "The Role of Investment Banker Directors in M&A." *Journal of Financial Economics* 112, no. 2: 269–286.

Jayaraman, Sudarshan, Todd Milbourn, Florian Peters, and Hojun Seo. 2021. "Product Market Peers and Relative Performance Evaluation." *Accounting Review* 96, no. 4: 341–366.

Jensen, Michael C., and William H. Meckling. 1976. "Theory of the Firm: Managerial Behavior, Agency costs and Ownership Structure." *Journal of Financial Economics* 3, no. 4: 305–360.

Jensen, Michael C., and Kevin J. Murphy. 1990a. "Performance Pay and Top-Management Incentives." *Journal of Political Economy* 98, no. 2: 225–264.

Jensen, M. C., and K. J. Murphy. 1990b. "CEO Incentives: It's Not How Much You Pay, But How." *Harvard Business Review* 68, no. 3: 138–149.

Jensen, Michael C. 2003. "Paying People to Lie: the Truth about the Budgeting Process." European Financial Management 9, no. 3: 379–406.

Johnson, William C., Jonathan M. Karpoff, and Sangho Yi. 2015. "The Bonding Hypothesis of Takeover Defenses: Evidence from IPO firms." *Journal of Financial Economics* 117, no. 2: 307–332.

Johnson, William C., Jonathan M. Karpoff, and Michael D. Wittry. 2021. "The Consequences to Directors of Deploying Poison Pills." SSRN Working Paper 3460201.

Johnson, William C., Jonathan M. Karpoff, and Sangho Yi. Forthcoming. "The Life Cycle Effects of Corporate Takeover Defenses." *Review of Financial Studies*.

Klein, Benjamin, Robert G. Crawford, and Armen A. Alchian. 1978. "Vertical Integration, Appropriable Rents, and the Competitive Contracting Process." *Journal of Law and Economics* 21, no. 2: 297–326.

Kumar, Raman, and Parvez R. Sopariwala. 1992. "The Effect of Adoption of Long-Term Performance Plans on Stock Prices and Accounting Numbers." *Journal of Financial and Quantitative Analysis* 27, no. 4: 561–573.

Laby, Arthur B. 2008. "The Fiduciary Obligation as the Adoption of Ends." *Buffalo Law Review* 56, no. 1: 99–167.

Larcker, David F., and Brian Tayan. 2016. "Chairman and CEO: the controversy over board leadership structure." Rock Center for Corporate Governance at Stanford University Closer Look Series: Topics, Issues and Controversies in Corporate Governance No. CGRP-58, Stanford University Graduate School of Business Research Paper 16–32.

Lin, Chen, Yue Ma, and Yuhai Xuan. 2011a. "Ownership Structure and Financial Constraints: Evidence from a Structural Estimation." *Journal of Financial Economics* 102, no. 2: 416–431.

Lin, Chen, Yue Ma, Paul Malatesta, and Yuhai Xuan. 2011b. "Ownership Structure and the Cost of Corporate Borrowing." *Journal of Financial Economics* 100, no. 1: 1–23.

Linck, James S., Jeffry M. Netter, and Tina Yang. 2009. "The Effects and Unintended Consequences of the Sarbanes-Oxley Act on the Supply and Demand for Directors." *Review of Financial Studies* 22, no. 8: 3287–3328.

Lins, Karl. 2003. "Equity Ownership and Firm Value in Emerging Markets." *Journal of Financial and Quantitative Analysis* 38, no. 1: 159–184.

Lipton, Martin. 1979. "Takeover Bids in the Target's Boardroom." Bus. Law. 35: 101.

Lipton, Martin, and William Savitt. 2007. "The Many Myths of Lucian Bebchuk." Virginia Law Review 93, no. 3: 733–758.

Lipton, Martin, S. A. Rosenblum, S. V. Niles, S. J. Lewis, and K. Watanabe. 2016. "The New Paradigm: A Roadmap for an Implicit Corporate Governance Partnership Between Corporations and Investors to Achieve Sustainable Long-Term Investment and Growth." Document prepared for the World Economic Forum.

Lipton, Martin. 2019. "Stakeholder Corporate Governance: Business Roundtable and Council of Institutional Investors." Wachtell, Lipton, Rosen & Katz memo, August 20, 2019.

Lund, Dorothy S. 2019. "Nonvoting Shares and Efficient Corporate Governance." Stanford Law Review 71, no. 3: 687–745.

Magill, Michael, Martine Quinzii, and Jean-Charles Rochet. 2015. "A Theory of the Stakeholder Corporation." *Econometrica* 83, no. 5: 1685–1725.

Manne, Henry G. 1965. "Mergers and the Market for Corporate Control." *Journal of Political Economy* 73, no. 2: 110–120.

Masulis, Ronald W., Cong Wang, and Fei Xie. 2009. "Agency Problems at Dual-Class Companies." *Journal of Finance* 64, no. 4: 1697–1727.

Masulis, Ronald W., and Emma Jincheng Zhang. 2019. "How Valuable Are Independent Directors? Evidence from External Distractions." *Journal of Financial Economics* 132, no. 3: 226–256.

Moon, William J. 2020. "Delaware's Global Competitiveness." Iowa Law Review. 106: 1683.

Morgan, John, and Justin Tumlinson. 2019. "Corporate Provision of Public Goods." *Management Science* 65, no. 10: 4489–4504.

Morse, Adair, Vikram Nanda, and Amit Seru. 2011. "Are Incentive Contracts Rigged by Powerful CEOs?" *Journal of Finance* 66, no. 5: 1779–1821.

Mourning, Joshua R. 2007 "The Majority-Voting Movement: Curtailing Shareholder Disenfranchisement in Corporate Director Elections." Washington University Law Review, 85 no. 5: 1143–1194.

Murphy, Kevin J. 2013. "Executive Compensation: Where We Are, and How We Got There." In Handbook of the Economics of Finance, vol. 2, pp. 211–356. Elsevier.

Murray, J. Haskell. 2014. "Social Enterprise Innovation: Delaware's Public Benefit Corporation Law." *Harvard Business Law Review* 4: 345–371.

Nenova, Tatiana. 2003. "The Value of Corporate Voting Rights and Control: A Cross-Country Analysis." *Journal of Financial Economics* 68, no. 3: 325–351.

Pan, Yihui, Tracy Yue Wang, and Michael S. Weisbach. 2016. "CEO Investment Cycles." *Review of Financial Studies* 29, no. 11: 2955–2999.

Raghunandan, Aneesh, and Shivaram Rajgopal. 2021. "Do Socially Responsible Firms Walk the Talk?" SSRN Working Paper 3609056.

Rosenstein, Stuart, and Jeffrey G. Wyatt. 1990. "Outside Directors, Board Independence, and Shareholder Wealth." *Journal of Financial Economics* 26, no. 2: 175–191.

Shleifer, Andrei, and Lawrence H. Summers. 1988. "Breach of Trust in Hostile Takeovers." In Corporate Takeovers: Causes and Consequences, pp. 33–68. University of Chicago Press.

Shleifer, Andrei, and Robert W. Vishny. 1997. "A Survey of Corporate Governance." *Journal of Finance* 52, no. 2: 737–783.

Smart, Scott B., and Chad J. Zutter. 2003. "Control as a Motivation for Underpricing: A Comparison of Dual-and Single-Class IPOs." *Journal of Financial Economics* 69, no. 1: 85–110.

Smart, Scott B., Ramabhadran S. Thirumalai, and Chad J. Zutter. 2008. "What's in a Vote? The Short-and Long-Run Impact of Dual-Class Equity on IPO Firm Values." *Journal of Accounting and Economics* 45, no. 1: 94–115.

Sokolyk, Tatyana. 2011. "The Effects of Anti-takeover Provisions on Acquisition Targets." *Journal of Corporate Finance* 17, no. 3: 612–627.

Sternberg, Elaine. 2004. *Corporate Governance: Accountability in the Marketplace*. London: Institute of Economic Affairs.

Stout, Lynn A. 2001. "Bad and Not-so-Bad Arguments for Shareholder Primacy." S. Cal. L. Rev. 75: 1189.

Strine Jr., Leo E. 2014. "Making It Easier for Directors To Do The Right Thing." *Harvard Business Law Review* 4, no. 2: 235–253.

Strine Jr., Leo E. 2015. "The Dangers of Denial: The Need for a Clear-Eyed Understanding of the Power and Accountability Structure Established by the Delaware General Corporation Law." Wake Forest Law Review 50, no. 3: 761.

Strine Jr., Leo. 2019. "Toward Fair and Sustainable Capitalism: A Comprehensive Proposal to Help American Workers, Restore Fair Gainsharing between Employees and Shareholders, and Increase American Competitiveness by Reorienting Our Corporate Governance System Toward Sustainable Long-Term Growth and Encouraging Investments in America's Future." U of Penn, Inst for Law & Econ Research Paper 19–39.

Thomas, Randall S., Alan R. Palmiter, and James F. Cotter. 2011. "Dodd-Frank's Say on Pay: Will It Lead to a Greater Role for Shareholders in Corporate Governance?" *Cornell Law Review* 97: 1213.

Tirole, J. 2001. "Corporate Governance," Econometrica 69, no. 1: 1–35.

Weisbach, Michael S. 1988. "Outside Directors and CEO Turnover." *Journal of Financial Economics* 20: 431–460.

Williamson, Oliver E. 1979. "Transaction-Cost Economics: The Governance of Contractual Relations." *Journal of Law and Economics* 22, no. 2: 233–261.

Williamson, Oliver E. 2002. "The Theory of the Firm as Governance Structure: From Choice to Contract." *Journal of Economic Perspectives* 16, no. 3: 171–195.

Williamson, Oliver E. 2010. "Transaction Cost Economics: The Natural Progression." *American Economic Review* 100, no. 3: 673–90.

Wintoki, M. Babajide, James S. Linck, and Jeffry M. Netter. 2012. "Endogeneity and the Dynamics of Internal Corporate Governance." *Journal of Financial Economics* 105, no. 3: 581–606.

Yermack, David. 2010. "Shareholder Voting and Corporate Governance." Annual Review of Financial Economics 2, no. 1: 103–125.

Zhang, Shuran. 2021. "Directors' Career Concerns: Evidence from Proxy Contests and Board Interlocks." *Journal of Financial Economics* 140, no. 3: 894–915.

FOR PROFESSIONAL USE ONLY. NOT FOR USE WITH RETAIL INVESTORS OR THE PUBLIC.

The information in this material is intended for the recipient's background information and use only. It is provided in good faith and without any warranty or, representation as to accuracy or completeness. Information and opinions presented in this material have been obtained or derived from sources believed by Dimensional to be reliable and Dimensional has reasonable grounds to believe that all factual information herein is true as at the date of this material. It does not constitute investment advice, recommendation, or an offer of any services or products for sale and is not intended to provide a sufficient basis on which to make an investment decision. Before acting on any information in this document, you should consider whether it is suitable for your particular circumstances and, if appropriate, seek professional advice. It is the responsibility of any persons wishing to make a purchase to inform themselves of and observe all applicable laws and regulations. Unauthorized reproduction or transmitting of this material is strictly prohibited.

Dimensional accepts no responsibility for loss arising from the use of the information contained herein.

This material is not directed at any person in any jurisdiction where the availability of this material is prohibited or would subject Dimensional or its products or services to any registration, licensing or other such legal requirements within the jurisdiction.

"Dimensional" refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors Ltp. Dimensional Fund Advisors Ltd., Dimensional Ireland Limited, DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd, Dimensional Japan Ltd., and Dimensional Hong Kong Limited. Dimensional Hong Kong Limited is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP.

Third-party content is distributed for informational purposes, and it is not to be construed as an offer, solicitation, recommendation, or endorsement of any particular security, products, or services. Named securities may be held in accounts managed by Dimensional. This information should not be considered a recommendation to buy or sell a particular security.

RISKS

Investments involve risks. The investment return and principal value of an investment may fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original value. Past performance is not a guarantee of future results. There is no guarantee strategies will be successful.

UNITED STATES

This information is provided for registered investment advisors and institutional investors and is not intended for public use. Dimensional Fund Advisors LP is an investment advisor registered with the Securities and Exchange Commission.

CANADA

This material is issued by Dimensional Fund Advisors Canada ULC for registered investment advisors, dealers, and institutional investors and is not intended for public use. The other Dimensional entities referenced herein are not registered resident investment fund managers or portfolio managers in Canada.

This material is not intended for Quebec residents.

Commissions, trailing commissions, management fees, and expenses all may be associated with mutual fund investments. Please read the prospectus before investing. Unless otherwise noted, any indicated total rates of return reflect the historical annual compounded total returns including changes in share or unit value and reinvestment of all dividends or other distributions and do not take into account sales, redemption, distribution, or optional charges or income taxes payable by any security holder that would have reduced returns. Mutual funds are not guaranteed, their values change frequently, and past performance may not be repeated.

AUSTRALIA

In Australia, this material is provided by DFA Australia Limited (AFSL 238093, ABN 46 065 937 671). It is provided for financial advisors and wholesale investors for information only and is not intended for public use. No account has been taken of the objectives, financial situation or needs of any particular person. Accordingly, to the extent this material constitutes general financial product advice, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to the investor's objectives, financial situation and needs.

NEW 7ΕΔΙΔΝΏ

This material has been prepared and provided in New Zealand by DFA Australia Limited, (incorporated in Australia, AFS License No.238093, ABN 46 065 937 671). This material is provided for financial advisers only and is not intended for public use. All material that DFA Australia Limited provides has been prepared for advisers, institutional investors and clients who are classified as Wholesale investors under the Financial Markets Conduct Act 2013. This material does not give any recommendation or opinion to acquire any financial advice product, and is not financial advice to you or any other person.

WHERE ISSUED BY DIMENSIONAL IRELAND LIMITED

Issued by Dimensional Ireland Limited (Dimensional Ireland), with registered office 10 Earlsfort Terrace, Dublin 2, D02 T380, Ireland. Dimensional Ireland is regulated by the Central Bank of Ireland (Registration No. C185067).

Directed only at professional clients within the meaning of Markets in Financial Instruments Directive (MiFID) (2014/65/EU).

WHERE ISSUED BY DIMENSIONAL FUND ADVISORS LTD.

Issued by Dimensional Fund Advisors Ltd. (Dimensional UK), 20 Triton Street, Regent's Place, London, NW1 3BF. Dimensional UK is authorised and regulated by the Financial Conduct Authority (FCA) - Firm Reference No. 150100.

Directed only at professional clients as defined by the rules of the FCA.

Dimensional UK and Dimensional Ireland issue information and materials in English and may also issue information and materials in certain other languages. The recipient's continued acceptance of information and materials from Dimensional UK and Dimensional Ireland will constitute the recipient's consent to be provided with such information and materials, where relevant, in more than one language.

NOTICE TO INVESTORS IN SWITZERLAND: This is advertising material.

JAPAN

For Institutional Investors and Registered Financial Intermediaries.

This material is deemed to be issued by Dimensional Japan Ltd., which is regulated by the Financial Services Agency of Japan and is registered as a Financial Instruments Firm conducting Investment Management Business and Investment Advisory and Agency Business.

Dimensional Japan Ltd.

Director of Kanto Local Finance Bureau (FIBO) No. 2683

Membership: Japan Investment Advisers Association

FOR LICENSED OR EXEMPT FINANCIAL ADVISORS AND INSTITUTIONAL INVESTORS IN SINGAPORE

This material is deemed to be issued by Dimensional Fund Advisors Pte. Ltd., which is regulated by the Monetary Authority of Singapore and holds a capital markets services license for fund management.

This advertisement has not been reviewed by the Monetary Authority of Singapore, and should not be shown to prospective retail investors.

For use by institutional investors and licensed or exempt financial advisors only in Singapore for internal training and educational purposes and not for the purpose of inducing, or attempting to induce, such institutional investors or financial advisors to make an investment. Not for use with the public.

FOR LICENSED FINANCIAL ADVISORS AND INSTITUTIONAL INVESTORS IN HONG KONG

This material is deemed to be issued by Dimensional Hong Kong Limited (CE No. BJE760), which is licensed by the Securities and Futures Commission to conductType 1 (dealing in securities) regulated activities only and does not provide asset management services.

For use by licensed financial advisors and institutional investors who are "professional investors" (as defined in the Securities and Futures Ordinance [Chapter 571 of the Laws of Hong Kong] and its subsidiary legislation) only in Hong Kong. This material is provided solely for internal training and educational purposes and is not for the purpose of inducing, or attempting to induce, such financial advisors and institutional investors to make an investment nor for the purpose of providing investment advice. Not for use with the public. This material is not intended to constitute and does not constitute marketing of the services of Dimensional Hong Kong or its affiliates to the public of Hong Kong.

Financial advisors in Hong Kong shall not actively market the services of Dimensional Hong Kong Limited or its affiliates to the Hong Kong public.