

Will Tenure Voting Give Corporate Managers Lifetime Tenure?

Law Working Paper N° 384/2018 February 2018 Paul H. Edelman Vanderbilt University

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Abstract

Dual-class voting systems have been widely employed in recent initial public offerings by large tech companies, but have been roundly condemned by institutional investors and the S&P 500. As an alternative, commentators have proposed adoption of tenure voting systems, where investor voting rights increase with the length of time that they hold shares. In furtherance of this proposal, some Silicon Valley investors have requested that the SEC permit the creation of a new stock exchange where all of the companies will be required to use tenure voting systems. Is tenure voting a better choice than dual-class stock for both corporate management and shareholders? In this paper, we review the arguments for and against tenure voting that have been made in the literature. In order to shed light on these claims veracity, we generate the first data base that documents institutional investor portfolio turnover rates for stock. We use this data to inform our mathematical voting model of tenure voting to show how its adoption would affect control rights within the corporation. We make two main findings that shed light on this question. First, we show that when corporate management holds a large block of company stock prior to the implementation of tenure voting, and retains at least 20-30% of the total number of company shares on a long term basis, then tenure voting will insure that corporate managers maintain control of the company even in the face of an attempted change of control transaction by a highly motivated dissident shareholder. Our second important finding is that if corporate management chooses to sell off its large initial block of the company's stock over time, so that inside ownership levels drop eventually down to a low percentage level with the majority of ownership held by institutional shareholders with different investment horizons, then the use of tenure voting systems does little to protect management control in a proxy contest for corporate control. We conclude that tenure voting does indeed represent an intermediate form of voting control from a managers' perspective: it does not guarantee management control, as dual-class share structures do, but does give control to management who maintain large equity stakes in the firm. Institutional investors are likely to see it as an improvement over dual-class stock structures in terms of giving them corporate governance rights, although less advantageous to these shareholders' rights than a one share, one vote voting system.

Keywords: tenure voting, corporate governance, voting model, dual-class stock, blockchain

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Dual-class voting systems have been widely employed in recent initial public offerings by large tech companies, but have been roundly condemned by institutional investors and the S&P 500. As an alternative, commentators have proposed adoption of tenure voting systems, where investor voting rights increase with the length of time that they hold shares. In furtherance of this proposal, some Silicon Valley investors have requested that the SEC permit the creation of a new stock exchange where all of the companies will be required to use tenure voting systems.

Is tenure voting a better choice than dual-class stock for *both* corporate management and shareholders? In this paper, we review the arguments for and against tenure voting that have been made in the literature. In order to shed light on these claims veracity, we generate the first data base that documents institutional investor portfolio turnover rates for stock. We use this data to inform our mathematical voting model of tenure voting to show how its adoption would affect control rights within the corporation.

We make two main findings that shed light on this question. First, we show that when corporate management holds a large block of company stock prior to the implementation of tenure voting, and retains at least 20-30% of the total number of company shares on a long term basis, then tenure voting will insure that corporate managers maintain control of the company even in the face of an attempted change of control transaction by a highly motivated dissident shareholder. Our second important finding is that if corporate management chooses to sell off its large initial block of the company's stock over time, so that inside ownership levels drop eventually down to a low percentage level with the majority of ownership held by institutional shareholders with different investment horizons, then the use of tenure voting systems does little to protect management control in a proxy contest for corporate control.

We conclude that tenure voting does indeed represent an intermediate form of voting control from a managers' perspective: it does not guarantee management control, as dual-class share structures do, but does give control to management who maintain large equity stakes in the firm. Institutional investors are likely to see it as an improvement over dual-class stock structures in terms of giving them corporate governance rights, although less advantageous to these shareholders' rights than a one share, one vote voting system.

TABLE OF CONTENTS

INTRC	DUCTION	4
I. TI	HE LEGAL BASIS FOR TENURE VOTING STRUCTURES	9
A.	DELAWARE LAW ON TENURE VOTING	. 10
1.	The Delaware General Corporation Law ("DGCL")	. 10
2.	Unilever and Williams v. Geier	. 12
B.	Stock Exchange Listing Requirements	. 14
C.	The Beneficial Ownership Problem and Blockchain Technology	. 17
II. PH	RIOR RESEARCH ON TENURE VOTING	. 23
III.	DATA COLLECTION	. 27
A.	Portfolio turnover of institutional investors	. 28
B.	Investor composition of companies	. 31
IV.	MODELING TENURE VOTING	. 37
A.	Background to the Model	. 37
	Results of the Model	
1.	Concentrated ownership	. 40
2.	Dispersed Ownership	
V. Co	ONCLUSIONS	. 48

INTRODUCTION

In the past decade, many household name companies have sold their shares to public investors while using dual-class voting structures to maintain management control over the company. ¹ For example, technology companies, including Alibaba, Facebook and Google (now Alphabet, Inc.), have all adopted dual-class voting structures. These management-friendly voting systems have been justified as giving their executives the freedom to operate their companies with a goal of long term value maximization. However, powerful institutional investors dislike these structures because they insulate managers from shareholder monitoring and create impenetrable obstacles to change of control transactions.² In reaction to pressure from these large shareholders, the S&P 500 recently decided to bar newcomer companies with multiple classes of shares from its flagship index.³

In an attempt to find an alternative voting system that might appeal to both groups, prominent legal practitioners and academics have recently advocated that Silicon Valley

companies should consider adopting tenure voting systems, i.e., a structure that awards greater

voting power to shares held for a longer duration,⁴ in lieu of using dual-class voting structures.⁵

¹ Dual-class offerings usually create two classes of stock— offering low-voting stock to public shareholders, while increasing the number of votes for insiders' stock. *See, e.g.*, Kishore Eechambadi, *The Dual Class Voting Structure, Associated Agency Issues, and a Path Forward*, 13 N.Y.U. J.L. & BUS. 503, 513 (2017).

<sup>513 (2017).
&</sup>lt;sup>2</sup> Chris Dieterich, *et al.*, S&P 500 Blocks Multiple Stock Classes, WALL ST. J., Aug. 2, 2017, at B1. In particular, BlackRock Inc., Vanguard Group and State Street Global Advisors, three of the world's largest managers of index tracking funds have called for avoiding unequal voting rights. See also Lucian Bebchuk & Kobi Kastiel, *The Untenable Case for Perpetual Dual-Class Stock*, 103 VA. L. REV. 585 (2017), available at https://ssrn.com/abstract=2954630.

³ Dieterich, *supra* note 2. The policy change resulted in the rejection of potential eligibility for Snap Inc. and Blue Apron Holdings Inc. both of which recently went public. *Id*.

⁴ With tenure voting, shares that are traded become low vote shares so that over time long term investors that hold their stock gain an increased percentage of the total voting power at the company.

⁵ See David J. Berger, Steven Davidoff Solomon, & Aaron Jedidiah Benjamin, *Tenure Voting and the U.S. Public Company*, 72 BUS. LAW. 295, 297 (2016) [hereinafter "Tenure Voting"] (noting adoption of

Attracted by these efforts, well-known Silicon Valley investors have petitioned the Securities and Exchange Commission (SEC) to let them create a new Long-Term Stock Exchange (LTSE), whose members will all use tenure voting.⁶ In the next few months, the LTSE intends to seek regulatory approval to become the newest stock exchange in the U.S.⁷

Tenure voting may represent an alternative voting system that could satisfy both corporate managers' desire for greater control and simultaneously give long-term investors, insiders or institutional investors with long-term investment horizons, a greater role in these firms' governance than at firms with dual-class equity structures. Tenure voting, also known as time-phased voting, has been around for many years. While there are relatively few public companies in the U.S. that employ it, several European jurisdictions have enthusiastically embraced tenure voting to a far greater extent.⁸

Is tenure voting a better choice than dual-class stock for *both* corporate management and shareholders? In this paper, we make two main findings that shed light on this question. First, we show that when corporate management holds a large block of company stock prior to the implementation of tenure voting, and retains at least 20-30% of the total number of company shares on a long term basis, then tenure voting will insure that corporate managers maintain control of the company even in the face of an attempted change of control transaction by a highly motivated dissident shareholder who owns the maximum amount of stock permitted by most

dual-class structure has been cited as a solution to short-termism claims and proposing tenure voting as an alternative solution).

⁶ Ellen Huet & Brad Stone, *Silicon Valley Tries to Build a Better Stock Exchange*, BLOOMBERG BUSINESSWEEK: TECH (June 13, 2016).

⁷ Alexander Osipovich & Dennis K. Berman, *New Stock Exchange to Take Long Term View*, WALL. ST. J., Oct. 17, 2017, at B1.

⁸ Lynne L. Dallas & Jordan M. Barry, *Long-Term Shareholders and Time-Phased Voting*, 40 DEL. J. CORP. L. 541, 550 (2016).

poison pills.⁹ From institutional investors' perspective, giving corporate management control while forcing them to maintain a substantial stake in the company (and thereby keeping a continuing strong financial incentive to maximize shareholder value) as the price of control is likely to be preferable to dual-class voting systems in which public shareholders enjoy low or virtually no votes, because dual-class exclusively allows corporate management to maintain control even at negligible ownership levels.¹⁰

Our second important finding is that if corporate management chooses to sell off its large initial block of the company's stock over time, so that inside ownership levels drop eventually down to a low percentage level with the majority of ownership held by institutional shareholders with different investment horizons, then the use of tenure voting systems does little to protect management control in a proxy contest for corporate control. Moreover, it is likely to lead to a transfer of voting power to passive shareholders who tend to delegate their vote to Institutional Shareholder Services ("ISS"), a third party proxy voting advisory service, and therefore leading ISS to "sway" even more votes than they do today.¹¹ This finding is robust to a wide variety of assumptions about stock ownership levels, shareholder voting preferences and the degree of influence of third party voting advisors. In other words, tenure voting will preserve management

⁹ Poison pills, or as they are sometimes called Rights Plans, are a powerful anti-takeover device that effectively limits the amount of stock that any unwanted acquirer can purchase without suffering massive dilution of their stake in the company and the associated economic harm. They have been upheld by the Delaware courts and are widely used by American public companies. Randall S. Thomas, *Judicial Review of Defensive Tactics in Proxy Contests: When is Using a Rights Plan Right?*, 46 VAND. L. REV. 503, 512 (1993). By limiting the number of shares that a dissident shareholder can accumulate, the poison pill also limits their voting power in a proxy contest for corporate control.

¹⁰ For us, it is the exclusivity of this power that is significant. In dual-class corporations the high-vote shares are limited in number and not generally available on the market. This confines the voting power to the founding stockholders. By comparison, any shareholder in a corporation with tenure voting will have access to high-vote shares as long as they are willing to hold on to their shares for a sufficient time. ¹¹ Proxy voting advisory services "focus on providing information and voting services to institutional investors." Paul H. Edelman, et. al., *Shareholder Voting in an Age of Intermediary Capitalism*, 87 S. CAL. L. REV. 1359, 1397 (2014). They have "acquired an aura of great influence in proxy voting…" *Id.* at 1399.

control only if managers continue hold a substantial block of shares over time. Otherwise, tenure voting will give long-term (often time passive) institutional investors a greater role in these companies' corporate governance at the expense of management control over the firm.

We conclude that tenure voting does indeed represent an intermediate form of voting control from a managers' perspective: it does not guarantee management control, as dual-class share structures do, but does give control to management who maintain large equity stakes in the firm. Institutional investors are likely to see it as an improvement over dual-class stock structures in terms of giving them corporate governance rights, although less advantageous to these shareholders' rights than a one share, one vote voting system.

Tenure voting could also be a preferable compromise to recent proposals for time limited dual-class voting schemes. One of these proposals would limit the life of dual-class voting structures in order to insure that companies were required to hold a second shareholder vote to extend the life of a dual-class structure. ¹² While this approach has the advantage of requiring fresh shareholder input on whether to continue the existence of a dual-class system, it also significantly weakens management's control rights and potentially limits its ability to engage in long term management practices. Tenure voting with a committed large management blockholder would preserve management control and give shareholders the benefit of a well aligned controlling shareholder.

This article proceeds as follows. In section I, we examine the legal underpinning of tenure voting, including its statutory and common law basis under Delaware corporate law, as well as the constraints imposed by the stock exchange listing rules and the practical barriers

¹² Bebchuk and Kastiel make one such a proposal (among other proposals). *See* Bebchuk & Kastiel, *supra* note 2.

resulting from stockholders' widespread practice of holding their shares in street name.¹³ However, the proposed creation of the Long-Term Stock Exchange and recently enacted Delaware legislation authorizing the creation of blockchain voting systems may well solve the latter problems.

Section II discusses the scant prior empirical and theoretical research on tenure voting. The best known empirical study is by Professors Dallas and Berry.¹⁴ They find that tenure voting empowers pre-existing long term shareholders, but does not strongly encourage long term shareholding. They also find that companies typically presume most institutional investors are short term holders because they do not hold their shares in record name.¹⁵

Section III discusses our data collection and provides an analysis of the average shareholder composition of current American public companies. Since the 1990s the average annual portfolio turnover rate¹⁶ of all institutional investors was rising until 2007, followed by a steady decline to the long-term average (median) of 60%-65% (30-35%). Hedge funds are the only category of investors whose investment horizon has been consistently below one year. By comparison banks, trusts, insurance companies, pension funds, and endowments/foundations will qualify as "long-term" investors using the three-year average holding horizon as the metric. The rest (mostly mutual funds and asset management companies) are intermediate-term holders. In a typical public company, short-term investors tend to hold about 10%-15% of the equity over

¹³ Shareholders that hold their stock through banks and brokers are said to hold it in "street name." RANDALL S. THOMAS & CATHERINE T. DIXON, ARANOW AND EINHORN ON PROXY CONTESTS FOR CORPORATE CONTROL 3–32 (3rd ed. 2001) (discussing obligations of banks and brokers in these circumstances). As we discuss below, this can make it difficult for companies to track ownership changes for shareholders to determine if they are entitled to long term holder voting rights. ¹⁴ Dallas & Barry, *supra* note 8.

¹⁵ See id. at 602 (noting that "[a] shareholder can rebut this presumption by providing evidence that shares have not changed beneficial ownership during the relevant time period"); *see infra* Section II.

¹⁶ This is a measure of how frequently investors change their stock portfolios. *See infra* Section III.A (discussing average annual turnover rates).

time, while long-term investors' stake has shrunk from about 40% in 1990 to less than 20% in recent years.

Section IV presents our model of tenure voting and shows how its adoption impacts control rights within the corporation. Using the data that we created in Section III, and building on earlier work, we simulate corporate voting in two situations: first, when management holds a large block of shares; and second, when there is dispersed ownership. Central to our analysis is the importance of third-party proxy voting advisors in influencing the segment of long-term shareholders who benefit from any tenure voting scheme. In each of these situations we consider how tenure voting affects the likelihood of a pro-management vote. From our model it becomes clear that the distribution of shares between those long-term shareholders who closely follow the advice of a proxy advisor and those who do not is critical to understanding tenure voting's effect.

Our model shows that tenure voting is an effective way for management to retain control even in the face of negative recommendations from a proxy advisor. However, this benefit decreases as the total number of long-term shares increases. When management only holds a small stake, tenure voting does little to protect management from a hostile proxy battle, and what little advantage there is dependent on the distribution of shares among the long-term shareholders more than on the actual amount they hold in total.

We finish in Section V with some brief concluding remarks and a discussion of the policy implications of our results. We include a short technical appendix that contains the important details on how our voting model is constructed.

I. THE LEGAL BASIS FOR TENURE VOTING STRUCTURES

9

Most major American public companies are incorporated in the state of Delaware, generally because they believe that its corporate law is beneficial to them.¹⁷ The Delaware courts have interpreted the Delaware General Corporation Law (DGCL) to allow tenure voting provisions to be inserted in the corporate charter. Further, a company's decision to adopt tenure voting, pursuant to a shareholder vote, is subject to business judgment review by the Delaware courts.

However, stock exchange rules provide a greater check on publicly listed companies' adoption of tenure voting. Furthermore, there are practical problems that make it quite difficult to track ownership length for shareholders that hold their shares in "street name," through banks and brokers. Proponents of tenure voting have argued that blockchain technology could be used to address these problems, but we show that even with the newly passed Delaware legislation it may be difficult to effectively implement such a system. We explore these issues more fully in this section.

A. DELAWARE LAW ON TENURE VOTING

1. The Delaware General Corporation Law ("DGCL")

Shareholder advocates have long maintained that investors' voting rights should closely track their economic interest in the company to ensure that the investors' incentives are properly aligned with those of the company and other investors.¹⁸ In order to be certain that this alignment

¹⁷ The comparative costs and benefits of incorporating in Delaware have been the subject of a vast legal academic literature that has gone on for several generations of scholarship. For a good review of the arguments on both sides, see ROBERTA ROMANO, FOUNDATIONS OF CORPORATE LAW 114–151 (2d ed. 2010).

¹⁸ Paul H. Edelman and Randall S. Thomas, [shareholder voting book chapter]

occurs, commentators have generally argued that companies should use one share/one vote systems for shareholder voting.¹⁹

The common law mandatory rule of one share/one vote²⁰ was short-lived in Delaware. Prior to 1897, shareholder voting rights could be altered in corporate by-laws.²¹ However, in the Delaware Constitution of 1897, Art. 9, § 6 guaranteed the common law mandatory one share/one vote rule. In 1901 and 1903, Delaware constitutional amendments removed this provision.

The DGCL favors one share/one vote as a matter of policy, but tolerates alternative voting structures. Section 212(a) establishes one-share-one-vote as the default rule unless the company provides otherwise in the certificate of incorporation.²² Management can unilaterally adopt an alternative voting scheme before the sale of stock.²³ Following the sale of stock, a board-recommended charter amendment that is approved by a shareholder vote can alter the corporation's voting structure.²⁴

Early challenges to similar alternative voting schemes upheld tenure voting. While Section 151(a) requires that all stocks in the same class have uniform "voting powers,"²⁵ in *Providence & Worcester Co. v. Baker*, the Delaware Supreme Court found that a scaled voting structure did not create disparate voting powers in a class of stock. ²⁶ In that case, the voting

¹⁹ Id.

²⁰ David L. Ratner, *The Government of Business Corporations: Critical Reflections on the Rule of "One Share, One Vote"*, 56 CORNELL L. REV. 1, 3 (1970).

²¹ "Under the first Delaware Corporation Law, voting rights were left to the by-laws." Providence & Worcester Co. v. Baker, 378 A. 2d 121, 123 (Del. 1977) (citing 17 DEL. L. CH. 147, § 18 (Del. Ch. 1883)).

²² "Unless otherwise provided in the certificate of incorporation and subject to § 213 of this title, each stockholder shall be entitled to 1 vote for each share of capital stock held by such stockholder." DGCL § 212(a).

²³ DGCL § 241(a).

²⁴ DGCL § 242(b) (1).

²⁵ DGCL § 151(a).

²⁶ 378 A.2d 121 (Del. 1977).

scheme awarded greater voting power to stocks based on the size of the share bloc.²⁷ The court reasoned that the quantity requirements were a restriction on voting rights, not voting powers, because all shares enjoy the same opportunity to attain more votes.²⁸ "The voting power of the stock in the hands of a large stockholder is not differentiated from all others in its class," because other stockholders exercise the same voting rights by attaining the threshold number of shares.²⁹ The scaled voting structure in *Baker* is analogous to tenure voting, simply substituting the limiting factor of holding duration for holding size.³⁰

2. Unilever and Williams v. Geier

Prior to *Williams v. Geier*, the *Unilever* decision of the U.S. District Court for the Southern District of New York was the only decision addressing tenure voting under Delaware law. In *Unilever Acquisition Corp. v. Richardson-Vicks, Inc*, ³¹ the Richardson-Vicks board of directors voted for the issuance of a stock dividend to common stockholders consisting of one "preferred stock" for every five shares of common stock.³² The preferred stock was a superior voting share entitled to cast twenty-five votes on all issues that common stock could vote on, however, if the preferred stock was transferred then it reverted to five votes until held for thirtysix months.³³ Unilever, a potential acquirer, challenged the stock dividend as an illegal interference with stockholder voting rights.³⁴

²⁷ Baker v. Providence & Worcester Co., 364 A.2d 838, 840 (Del. Ch. 1976), *vacated*, 378 A.2d 121 (Del. 1977).

²⁸ 378 A.2d 121.

²⁹ *Id.* at 123.

³⁰ See also Sagusa, Inc. v. Magellan Petroleum Corp., 19 Del. Corp. L. 1304 (Del. Ch. 1993), *aff'd* Sagusa, Inc. v. Magellan Petroleum Corp., 650 A.2d 1306 (Table) (Del. 1994) (upholding per capita voting requiring majority of persons and majority of shares to vote in favor).

³¹ 618 F. Supp. 407 (S.D.N.Y. 1985).

 $^{^{32}}$ *Id.* at 408.

³³ *Id*.

³⁴ *Id*.

The federal district court found that the stock dividend was impermissible under Delaware law because the board exceeded its authority granted by the corporate charter.³⁵ The charter allowed the board to issue new series of stock with identical voting rights, and the court held that the preferred stock with tenure voting created separate classes of stock.³⁶ The *Unilever* court distinguished the board's action from *Providence & Worcester*, because the alternative voting scheme in *Providence & Worcester* was in the company's charter for a century.³⁷ Second, the court held that issuance of tenure voting stock constituted a restriction on transfer under DGCL § 202, requiring the approval of affected stockholders.³⁸

In *Williams v. Geier*, the Delaware Supreme Court rejected *Unilever*, holding that a board's recommendation of a charter amendment to adopt tenure voting is subject to business judgment review.³⁹ The facts of the case showed that the defendant-corporation Milacron was a controlled corporation, dominated by the Geier family. The board recommended to shareholders a charter amendment that created a High-Low tenure voting structure, known as the recapitalization plan.⁴⁰ It granted existing stockholders ten votes per share. Shares sold or transferred after the effective date would revert to one vote per share, and newly issued shares would have one-vote per share initially. After thirty-six consecutive months of ownership, the shares would be entitled to ten votes. The Chancery Court analyzed the claim that the directors'

³⁵ *Id.* at 409.

³⁶ *Id.* (finding that the tenure voting stock "strips the shareholder of the ability to transfer voting rights without prior warning, compensation or shareholder authorization, creating two classes within one series of shares—those that have been recently acquired, with reduced votes, and those that have not, with full votes").

 $^{^{37}}$ *Id.* at 409–10.

³⁸ Id.

³⁹ Williams v. Geier, 671 A.2d 1368 (Del. 1996); *see also* R. FRANKLIN BALOTTI & JESSE A. FINKELSTEIN, DEL. L. OF CORP. AND BUS. ORG. §6.50 (2017).

⁴⁰ *Williams*, 671 A.2d at 1371–4. The structure was based on the same tenure voting plan used by family-controlled Smuckers. *Id.* This "High-Low" voting plan is essentially the same model that Berger et al. advocated more companies to adopt. *See* Berger et. al., *supra* note 5, at 305, 317.

recommendation breached their duty of loyalty under *Unocal* standard, categorizing the recapitalization plan as a defensive measure and finding the plan was reasonable given the threat.⁴¹ On appeal, the plaintiff-shareholder claimed the more onerous *Blasius* standard applied to the board's recommendation.⁴²

The Delaware Supreme Court found neither the *Unocal* nor the *Blasius* standard applied.⁴³ The court held only unilateral, defensive board action triggers the higher *Unocal* standard.⁴⁴ It reasoned that the shareholder vote approving the amendment precluded *Unocal* analysis.⁴⁵ The even stricter *Blasius* standard applies only where the "primary purpose' of the board's action [is] to interfere with or impede exercise of the shareholder franchise," and when shareholders are not given a "full and fair opportunity to vote."⁴⁶ The court held the record lacked evidence that the purpose of the charter amendment was to disenfranchise shareholders and further held that the shareholders had been given a full and fair opportunity to vote. After *Williams*, there remains no doubt that Delaware law permits tenure voting systems.

B. STOCK EXCHANGE LISTING REQUIREMENTS

⁴¹ *Williams*, 671 A.2d at 1371. *Unocal Corp. v. Mesa Petroleum Co.* was a landmark Delaware Supreme Court decision that created a new standard for analyzing dynamic takeover defenses adopted by a board of directors. 493 A.2d 946 (Del. 1985). *Unocal* found that boards may oppose a takeover threat it reasonably perceives to be harmful to the corporation. *Id.* at 953–7. The response must be reasonable in light of the perceived threat. *Id.* Delaware courts have given boards significant discretion to determine a "perceived threat."

 ⁴² Blasius Industries, Inc. v. Atlas Corp., 564 A.2d 651 (Del. Ch. 1988) requires defendants to show a
 "compelling justification" when they take action whose primary purpose is to impede shareholder voting.
 ⁴³ *Id.* at 1376.

 ⁴⁴ Williams, 671 A.2d at 1376. Unocal enhanced judicial review applies in cases where the board of directors adopts defensive tactics to fend off an unwanted hostile takeover bid. Unocal, 493 A.2d 946.
 ⁴⁵ Id. (citing Blasius, 564 A.2d 651). The Blasius test is frequently invoked by plaintiffs but rarely applied by the Delaware courts.

⁴⁶ *Id.* (citing *Stroud v. Grace*, 606 A.2d 75, 92 (Del. 1992)).

For public companies, the stock exchange listing rules provide a second layer of regulation that governs alternative voting schemes. In July 1988, the SEC enacted rule 19c-4, which prohibited stock exchanges from permitting dual-class equity in listing standards amid fears of shareholder disenfranchisement. ⁴⁷ Passing rule 19c-4 effectively required exchanges to keep the one share/one vote rule by barring listed companies from issuing shares carrying more than one vote. ⁴⁸ However, shortly thereafter, the D.C. Circuit struck down rule 19c-4, stating that it regulated an issue of corporate governance that did not further the purposes of the Exchange Act.⁴⁹

Within a few years of that decision, the NYSE (and other exchanges) adopted a voting rights policy that had some similarities to the now defunct SEC rule 19c-4.⁵⁰ The NYSE listing standards state: "Voting rights of *existing* stockholders of publicly traded common stock registered under Section 12 of the Exchange Act cannot be disparately reduced or restricted through any corporate action or issuance."⁵¹ The NASDAQ has its own similar rule.⁵² The NYSE standard, based on rule 19c-4, is more flexible than the earlier defunct SEC rule: the NYSE policy permits publicly listed companies to adopt alternative voting schemes, such as tenure voting, when issuing stock in an initial public offering (IPO).⁵³

⁴⁷ STEPHEN M. BAINBRIDGE, CORPORATE GOVERNANCE AFTER THE FINANCIAL CRISIS (2012).

⁴⁸ Stephen Bainbridge, *Resurrection of SEC Rule 19c-4*, 69 Wash. U. L. Quart. 565, 576 (1991).

⁴⁹ Business Roundtable v. SEC, 905 F.2d 406 at 407 (D.C. Cir. 1990).

 ⁵⁰ See Bainbridge, *Resurrection*, supra note 48 at 625; see also Berger et. al., supra note 5 at 304.
 ⁵¹ Nasdaq Rule 5640, IM-5640; NYSE Rule 313.00; NYSE MKT Company Guide § 122; Order Granting Approval to Rule Changes Relating to the Exchanges' and Association's Rules Regarding Shareholder Voting Rights, 59 Fed. Reg. 66570-01, at III.D.1 (Dec. 27, 1994) [hereinafter SEC Approval].
 ⁵² See Bainbridge, *Resurrection*, supra note 48 at 625.

⁵³ See GUY P. LANDER, 14 U.S. SEC. LAW FOR FINANCIAL TRANS. §3:179 (2d ed.) (emphasis added): "To prevent listed issuers from disenfranchising public holders of common stock, the NYSE has adopted a voting rights policy that is based on, but more flexible than, former Rule 19c-4 under the Exchange Act (the Shareholder Disenfranchisement Rule). Both... prohibit any corporate action or issuance that would disparately reduce or restrict the voting rights of existing shareholders of publicly traded common stock registered under Section 12 of the Exchange Act...However, the NYSE policy...also permits certain actions or issuances that would have been

The NYSE voting rights policy precludes companies from adopting tenure voting plans for existing shares. The standards list "adoption of time-phased voting plans" as an examples corporate action or issuance that would "disparately reduce or restrict" voting rights.⁵⁴ "Timephased voting" includes "plans that restrict the voting [rights] of shares based on the length of time the shareholder has held the stock," which is the equivalent of tenure voting.⁵⁵ Therefore, most commentators agree that listing rules allow the adoption of tenure voting only at the IPO stage.

Overall, there is little disagreement that the NYSE rules constitute a ban on tenure voting for existing publicly-listed companies, although some question whether the rule should be amended.⁵⁶ Recently, Berger et. al. have argued that High-Low tenure voting plans (such as the Recapitalization Plan in *Williams*) do not violate the NYSE voting rights policy and can be adopted by public companies for existing shareholders.⁵⁷ They claim that a High-Low plan does not *disparately* reduce or restrict the voting rights of existing shareholders.⁵⁸ Although the Delaware Supreme Court in *Providence* described alternative voting arrangements as "restrictions" on "voting rights,"⁵⁹ Berger et. al.'s reasoning is that the restriction is not

⁵⁶ See Tamara Co. Belinfanti, *Shareholder Cultivation and New Governance*, 38 Del. J. Corp. L. 789, 834 (2014) (referring to tenure voting as "time-weighted voting") ("The NYSE standards thus effectively function as immutable rules and bar the use of time-weighted voting for existing public companies."); NYSE Market Rules: Listed Company Manual, N.Y. Stock Exch. § 313.00(A), *available at:* http://nysemanual.nyse.com/LCMTools/PlatformViewer.asp?selectednode=chp%5F1%5F4%5F10& manual=%2Flcm%2Fsections%2Flcm%2Dsections%2F [hereinafter NYSE Manual].

prohibited under Rule 19c-4. The NYSE stated *it will be flexible in its interpretation under this policy because it recognizes that both the capital markets and the circumstances and needs of listed issuers change over time.*"

 ⁵⁴ Nasdaq Rule 5640, IM-5640; NYSE Rule 313.00; NYSE MKT Company Guide § 122; Order Granting Approval to Rule Changes Relating to the Exchanges' and Association's Rules Regarding Shareholder Voting Rights, 59 Fed. Reg. 66570-01, at III.D.1 (Dec. 27, 1994) [hereinafter SEC Approval].
 ⁵⁵ See LANDER, supra note 53 at note 3; see also NYSE Listed Company Manual, § 313.00(A); Former Exchange Act Rule 19c-4, 17 C.F.R. § 240.19c-4.

⁵⁷ Berger et. al., *supra* note 5 at 319–20.

⁵⁸ Id.

⁵⁹ *Providence*, 378 A.2d at 122–4.

disparate, which tracks the reasoning used by the *Providence* court to permit scaled voting under DGCL § 151(a): tenure voting grants all shareholders equal opportunity to gain additional voting rights.⁶⁰ To the best of the authors' knowledge, no public company has yet attempted to adopt tenure voting in this situation.

C. THE BENEFICIAL OWNERSHIP PROBLEM AND BLOCKCHAIN TECHNOLOGY

Prior to the 1970s, the U.S. had a "paper system" of stock ownership where all the

intricacies of transfer were completed manually by clerks at brokerage firms.⁶¹ A clearing crisis

occurred from backlogged transfers in the 1970s that prompted the shift to a centralized,

depository model.⁶² A centralized system was advocated for by leaders of finance, because

keeping shares in one place and in one name dramatically simplifies transfer of stock.⁶³ Thus,

several entities were created to manage a true depository system, eventually culminating in the

Depository Trust Company (DTC),⁶⁴ the designated central securities depository.

⁶⁰ Berger et. al., *supra* note 5 at 319–20.

⁶¹ See David C. Donald, *Heart of Darkness: The Problem at the Core of the U.S. Proxy System and Its Solution*, 6 VA. L. & BUS 41, 50 (2011) (analyzing the implementation of the depository system and how it makes communications with shareholders "impossible").

⁶² See id:

The current U.S. depository model of securities settlement was implemented following a major market failure that culminated in 1970...Up until the 1970s, most securities firms took care of their securities transfer paperwork through the manual work of clerks...As trading volume steadily increased in the late 1960s, brokers fell behind in this "back office" processing of transaction settlements...During 1969, the inability of some brokerage firms to settle securities transactions created enormous backups in deliveries, so that unperformed obligations could range from 70% to 200% of a firm's total assets...Firms were forced to cover short positions caused by missing securities through open market purchases, a strategy that was successful while cash flow was strong. But as the market turned downward in 1970, brokers found their working capital diminished, which forced them into default on outstanding delivery obligations for which the securities had been lost or misplaced. As a result, over 100 brokerage firms either entered bankruptcy or were acquired by stronger competitors.

⁶³ *Id.* at 56.

⁶⁴ See id. at 59–60.

Under the "indirect holding system," the vast majority of stock is owned by Cede & Company, eliminating the paper problem and resulting in almost dematerialization of stock.⁶⁵ Cede & Co. is a New York City-based partnership founded in 1996 to hold substantially all of the stock in the United States on behalf of the DTC. While stock is owned by Cede & Co., it is registered in the brokers' name. ⁶⁶ When stock is purchased by a stockholder, the stock is registered under the name of the broker facilitating the transaction, known as street name holding.⁶⁷

Corporations are generally required to maintain a list of stockholders to allow stockholders to exercise their rights, such as voting and inspecting the books. Section 19(a) of the DGCL requires the officers of Delaware corporations to create and update a stockholder list.⁶⁸ A shareholder is defined as those registered on the annual stockholders' list.⁶⁹ The process of compiling a stockholder list is arduous. At least twenty business days prior to the record date of the shareholder meeting, the corporation must contact the DTC to specify the participant firms otherwise the entire stockholder list could only contain one name, "Cede & Co."⁷⁰ This request is often called the "Cede breakdown."⁷¹ Following this initial request, there are a series of communications between brokers and banks, the DTC, and the issuer to establish the beneficial owners of the issuer's stock. Unsurprisingly, this process is ripe for error.⁷²

⁶⁵ See id. at 59–61.

⁶⁶ Matt Levine, *Banks Forgot Who Was Supposed to Own Dell Shares*, BLOOMBERG VIEW: MONEY STUFF (July 14, 2015).

⁶⁷ Id.

⁶⁸ DGCL § 219(a).

⁶⁹ DGCL § 219(c); Williams v. Sterling Oil of Okla. Inc., 267 A.2d 630, 634 (Del. Ch. 1970).

⁷⁰ *See* Donald, *supra* 61, at 68.

⁷¹ Id.

⁷² Fiammetta S. Piazza, *Bitcoin and the Blockchain as Possible Corporate Governance Tools*, 5 PENN ST. J. OF L. & INT'L AFF. 262, 293 (2017) ("Implementation of blockchain could solve these issues given its accuracy and reliability levels deriving from availability of copies of ledgers to all users.").

Because of these difficulties, companies that use tenure voting frequently have difficulty determining which of their shareholders are entitled to receive higher voting power on their shares if the shares are held in "street name."⁷³ The reason for this problem is that only record holders of corporate shares are statutorily entitled to cast their votes, and when a shareholder holds their stock through a bank or broker, the company has difficulty determining who the beneficial owner is and how long they have held the stock.⁷⁴ The rapid increase of high frequency trading in the past fifty years has made ownership murkier.⁷⁵ Companies commonly therefore treat all shares held in street name as low vote stock.⁷⁶ Thus, stockholders who own shares in street name are disparately impacted by tenure voting plans. They do not share an equal opportunity to gain increased voting rights by long-term ownership, because the company is not accurately tracking the duration of these holdings.⁷⁷

⁷³ When stock is purchased by a stockholder, the stock is registered under the name of the broker facilitating the transaction, known as street name holding. *See* Levine, *Banks Forgot, supra* note 66.
⁷⁴ Under the street name registration system, shares are generally registered under the broker's name, not the investor. *See id.* Street name holding is not uncommon. In 1993, the New York Times reported that "Peter Quick of the discount brokerage firm Quick & Reilly estimate[d] that 75 to 80 percent of all shares [were] held in street name and that the percentage [was] growing." Andree Brooks, *STOCKS; 'Street Name' Accounts: Benefits with Minuses*, NY TIMES, Aug. 7, 1993, *available at*:

http://www.nytimes.com/1993/08/07/news/stocks-street-name-accounts-benefits-with-minuses.html. Beneficial ownership then occurs through various legal entities. This puts a substantial administrative burden on shareholders and companies to attempt to track beneficial ownership. *See id*.

⁷⁵ See Michael Morelli, *Regulating Secondary Markets in the High Frequency Age: A Principled and Coordinated Approach*, 6 MICH. BUS. & ENTREPRENEURIAL L. REV. 79 (2016) (analyzing how high frequency trading presents challenges for securities regulation).

⁷⁶ Dallas & Berry, supra note 8, at 602. All the companies in the Dallas & Barry study, discussed *infra* Part II., treated street name shares as short-term shares. *Id*.

⁷⁷ Tenure voting has not gained a foothold in the U.S. partially due to logistical barriers imposed by trackability of ownership. In the Dallas & Barry study, half of the companies in the study eventually rescinded their tenured voting schemes and several cited the administrative burden as a cause. Dallas & Barry, supra note 8, at 614–5. For example, after rescinding its tenure voting system, Church & Dwight stated in its proxy statements that tenure voting was a "burdensome" system that produced "confusion as to the distribution of voting power" and "substantially complicated the [c]ompany's stockholder records and proxy voting procedures." Church & Dwight Co., Proxy Statement (Form DEF 14A), at 26–7 (Apr. 3, 2003).

Recent legislation in Delaware permitting companies to adopt blockchain (also called distributed ledger) technology may solve this problem.⁷⁸ Blockchain technology allows for stock ownership to be digitally tracked so all shareholders would own stock in their names.⁷⁹ Clearing and settlement of securities transactions could be instantaneous through digitization of securities and blockchain technology.⁸⁰ Overstock became the first public company to offer digital securities in December, 2016, after receiving approval from the SEC in December, 2015.⁸¹ According to the Overstock proxy statements, the digital securities could be held in the purchaser's name directly.⁸² The great advantage of this process for tenure voting systems would be that it would make it easier for companies to trace the identity of their shareholders and therefore more accurately assign high and low voting rights.⁸³

Delaware's response to the blockchain trend could foreshadow its mainstream success.

Former Delaware Governor Jack Markell launched the Delaware Blockchain Initiative that

⁷⁸ Louis G. Hering and Melissa A. DiVincenzo, 2017 Amendments to Delaware's General Corporation Law and Alternative Entity Statutes, BLOOMBERG LAW, CORPORATE LAW AND ACCOUNTABILITY REPORT, Aug. 17, 2017.

⁷⁹ Berger et. al., *supra* note 5, at 312–5. Blockchain refers to technology that stores information in a chain of blocs, such as the entire purchase history of a good or asset. The technology was developed for the digital currency Bitcoin. *See, e.g.,* Joanna Diane Caytas, *Developing Blockchain Real-Time Clearing and Settlement in the EU, U.S., and Globally*, COLUM. J. OF EUR. L., in Preliminary Reference (June 22, 2016), *available at* https://ssrn.com/abstract=2807675; Kevin Maney, *Trust and Verify: The Coming Blockchain Revolution*, NEWSWEEK, May 23, 2016, *available at* http://europe.newsweek.com/blockchain-technology-will-remake-global-financial-system-462537?rm=eu.

⁸⁰ See Caytas, *supra* note 79. Securities trading has relied on "trusted third parties" such as banks for clearing and settlement. Clearing consists of comparing records of the buyer and seller and settlement involves transfer of ownership by a custodian for consideration. *Id*.

⁸¹ Tom Zanki, *Overstock Issues First-Ever Blockchain Shares in \$11M Offer*, LAW360, Dec. 16, 2016, *available at* https://www.law360.com/articles/873790/overstock-issues-first-ever-blockchain-shares-in-11m-offer; *see also* Tom Zanki, *SEC Approval of Digital Shares Could Spur Experimentation*, LAW360 (Dec. 18, 2015), *available at* http://www.law360.com/securities/articles/739837/sec-approval-of-digital-shares-could-spur-experimentation.

⁸² Overstock.com, Inc., Prospectus (Form 424B3), at 34–6 (Dec. 11, 2015).

⁸³ "In practice, voting via blockchain would be achieved by allocating eligible voters tokens (also called 'vote coins') in a number that represents their voting power. Voters would then transmit to addresses on the blockchain their vote, which would then be registered on the ledger." Piazza, supra note 72, at 293 (internal citations omitted).

committed the state to the use of blockchain and requested legislators clarify whether Delaware corporate law permits use of blockchain to track share issuances and transfers.⁸⁴ On July 21, 2017, current Governor John C. Carney Jr. signed into law amendments to the DGCL that allow companies to keep shareholder information on blockchain distributed ledgers technology and communicate with investors via blockchain.⁸⁵ The amendments took effect immediately.⁸⁶

The amendments allow corporations to issue stock using blockchain and maintain stock ledgers through blockchain technology. Section 19 of the DGCL, which requires corporation's stock ledgers be used to determine voting entitlements, was amended to expressly define "stock ledger."⁸⁷ Now "stock ledger" is defined as "one or more records administered by or on behalf of the corporation in which the names of all of the corporation's stockholders of record, the address and number of shares registered in the name of each such stockholder, and all issuances and transfers of stock of the corporation are recorded in accordance with Section 224 of this title."⁸⁸ Maintenance of corporate records by use of electronic networks or databases is now permitted

⁸⁴ See Andrea Tinianow & Caitlin Long, *Delaware Blockchain Initiative: Transforming the Foundational Infrastructure of Corporate Finance*, HARV. L. SCH. F. ON CORP. GOVERNANCE & FIN. GOVERNANCE (March 16, 2017) (discussing the Delaware Blockchain Initiative that motivated the change of Delaware law to allow Blockchain stock).

⁸⁵ Joseph C. Guagliardo, Todd R. Kornfield, Johanna R. Collins-Wood, & Matthew M. Greenberg, *Delaware Encourages Blockchain Technology Through Legal and Technological Innovations*, PEPPER HAMILTON LLP CLIENT ALERT, Aug. 2, 2017, *available at*

http://www.pepperlaw.com/publications/delaware-encourages-blockchain-technology-through-legal-and-technological-innovations-2017-08-02/.

⁸⁶ Id.

 ⁸⁷ Louis G. Hering & Melissa A. DiVincenzo, 2017 Amendments to Delaware's General Corporation Law and Alternative Entity Statutes, MORRIS NICHOLS ARSHT & TUNNELL, Aug. 17, 2017.
 ⁸⁸ DGCL § 219(c).

expressly by Section 224.⁸⁹ In addition, Sections 151(f), 202(a) and 364 were amended to allow notice required by statute to stockholders be delivered by electronic transmissions.⁹⁰

Delaware's express allowance of blockchain paves the way for modernizing securities transactions, but blockchain presents a new set of challenges as well as a solution to the trackability problem. Blockchain promises a myriad of benefits for shareholders: lower cost of trading, more transparency in ownership records, and real-time observation of ownership transfers that could facilitate shareholder activism.⁹¹ Blockchain could allow activists to buy shares faster and cheaper than the current system that makes locating stockowners for an outsider arduous.⁹² "Corporate voting could become more accurate, and strategies such as 'empty voting' that are designed to separate voting rights from other aspects of share ownership could become more difficulty to execute secretly."⁹³

The potential downsides of blockchain are also manifold. First, the gatekeeper, i.e. the party with authority to encode new transactions into blockchain, has an enormous amount of power that could be abused: "The gatekeeper can restrict entry into a market, assess monopolistic user fees, edit incoming data, treat some users preferentially, limit users' access to market data, and possibly share user data with outsiders."⁹⁴ Further, the security of blockchain has posed

⁸⁹ See Hering & DiVincenzo, supra note 87:

Section 224 also requires that, in the case of stock ledgers kept by use of electronic networks or databases, such ledger must be able to be used to prepare the lists required by Sections 219 and 220, record certain information specified in Sections 156, 159, 217(a) and 218 and record transfers of stock as governed by Article 8 of Delaware's Uniform Commercial Code.

⁹⁰ *Id.* "The definition of 'electronic transmissions,' which is set forth in Section 232, has been amended to include the use of electronic networks or databases and covers 'any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process." *Id.*

⁹¹ David Yermack, *Corporate Governance and Blockchains*, 21 REV. OF FIN. 7 (2017). ⁹² Id.

 $^{^{93}}$ *Id*.

⁹⁴ *Id.* at 12.

challenges. High profile bitcoin heists have made headlines. While hackers have been unable to breach the security of Coinbase, the most trusted cryptocurrency intermediary, its individual users are frequently hacked.⁹⁵ Experts claim that the primary security risk of blockchain is hacking of individual user accounts rather than system hacks.⁹⁶ Lastly, the length of the phasing in period and complexity of blockchain may give some onlookers pause. Commentators have questioned whether blockchain was making a mountain out of a mole hill and that there may be simpler ways of keeping a ledger.⁹⁷ Some experts estimate that the phase-in period may take upwards of twenty years.⁹⁸ This timeline dampens hopes that blockchain would provide an immediate fix-all solution for the trackability problem.

II. PRIOR RESEARCH ON TENURE VOTING

In spite of the concern about the short-term orientation of corporate shareholders, there has been remarkably little written on how to provide the appropriate incentives to them to extend their time-horizons. One way would be to reward them for holding their shares for an extended time. This approach, essentially providing call-options to shareholders that vest over time, has been explored by Bolton and Samama.⁹⁹

The alternative we explore, tenure voting, rewards shareholders with extra influence in the decisions of the corporation if they retain their shares. The best-known study of tenure voting

⁹⁵ Jen Wieczner, *Hacking Coinbase: The Great Bitcoin Bank Robbery*, FORTUNE, Aug. 22, 2017, *available at* http://fortune.com/2017/08/22/bitcoin-coinbase-hack/.

⁹⁶ Allison Berke, *How Safe Are Blockchains? It Depends*, HARV. BUS. REV. (March 7, 2017), *available at* https://hbr.org/2017/03/how-safe-are-blockchains-it-depends.

⁹⁷ Matt Levine, *Mortgage Bonds and Stock Blockchains*, BLOOMBERG VIEW: MONEY STUFF, Sep. 12, 2017.

⁹⁸ See Hering & DiVincenzo, supra note 87.

⁹⁹ Patrick Bolton & Frederic Samama, *L-Shares: Rewarding Long-term Investors*, 25 J. APPL. CORP. FIN. 38 (2013).

is by Professors Lynne Dallas and Jordan Barry who examined twelve U.S. companies employing tenure voting (referring to it as time-phased voting) to determine its effect on corporate governance and managerial myopia.¹⁰⁰ Dallas & Barry found that tenure voting empowers pre-existing long-term share owners but does little to encourage long-term shareholding.¹⁰¹ Despite a small and homogenous sample size that inhibits drawing causal inferences, the study sheds light on trends associated with tenure voting plans. The Dallas & Barry article makes two basic points. First, the authors provide a policy perspective on tenure voting, analyzing it in the context of corporate law and dual-class equity scholarship.¹⁰² Second, the authors investigate their hypotheses by studying twelve American companies with tenure voting.¹⁰³

Dallas & Barry begin by examining three potential justifications for adopting tenure voting to reduce management myopia. First, since tenure voting gives long-term shareholders more control over management, management will presumably focus on pleasing long-term shareholders. Second, tenure voting should encourage long-term shareholding by awarding greater voting power based on duration of holdings. Lastly, it could change firm culture towards a focus on long-term value maximization.

The validity of these claims is difficult to measure, particularly because their sample size was small and comprised of substantially similar companies. Unfortunately, this seems unavoidable due to limited pool of American companies employing tenure voting.¹⁰⁴ They followed twelve publicly-listed companies that adopted tenure voting between 1985 and 1987,

¹⁰⁰ Dallas & Barry, *supra* note 8.

¹⁰¹ See id.

¹⁰² See id. at 550.

¹⁰³ See id. at 551.

¹⁰⁴ See id. at 593.

during the brief window after the NYSE abolished mandatory one share/one vote and before the current NYSE rule barring adoption of tenure voting post-IPO, and which still remained on the NYSE.¹⁰⁵ Ten of the twelve companies were family-controlled and their plans had features summarized in the note below.¹⁰⁶

The authors found that for these plans tenure voting did not reduce managerial myopia by increasing long-term shareholding. Instead, the concentration of insider ownership decreased when companies adopted tenure voting. ¹⁰⁷ Moreover, tenure voting had no significant impact on ownership by institutional investors nor did it increase long-term ownership.¹⁰⁸ Long-term shareholder ownership actually decreased throughout the course of tenure voting.¹⁰⁹

 108 See id. at 624–6.

¹⁰⁵ *See id.*

¹⁰⁶ See id. at 594. All of the companies were longstanding businesses when tenure voting was adopted. Half of the companies were incorporated in Delaware and they spanned a wide range of industries, from finance to agriculture. Id. at 598. The companies had a variety of plans-the most popular plan awarded ten votes for long-term shares and four-year holding period. See id. at 600. Twenty-five percent of the companies had three-year holding periods and seventy-five percent of the companies had four-year holding periods. Votes per long-term share varied slightly more: two companies awarded four votes, four companies awarded, and six companies awarded ten votes. The companies that adopted tenure voting post-IO treated all outstanding shares as long-term, while the companies that adopted tenure voting at the IPO-stage gave long-term status to preexisting shares and not the newly issued shares. Id. Many companies granted the board of directors significant discretion over the number and ownership of the long-term voting stock. For example, Smuckers reset its holding period twice in 2002 and 2008 that corresponded with its acquisitions of other companies Id. at note 248. As a takeover defense, half of the companies gave the board authority to reissue shares that were immediately entitled to long-term votessimilar to a shareholder rights plan, i.e. poison pill. The companies often conceded in their proxy statements that this was a takeover defense. Id. at 601. See id. at 602-3. One-third of the companies adopted an additional takeover defense that required large investors to notify the company if she acquired 5% of outstanding shares; failure to notify the company resulted in resetting the holding period as if the stock were transferred. While most of the companies cited reducing short-termism as one reason for adopting tenure voting, preventing hostile takeover attempts and increasing flexibility of the company's capital structure was another listed motivator for adopting tenure voting. See id at 604-8. ¹⁰⁷ See id. at 620–1.

¹⁰⁹ See id. at 629. This was to be expected in the early years following adoption, because all of the shares at adoption were categorized as long-term. However, even after the initial decline, long-term shareholder ownership declined, likely due to insiders selling their shareholdings while minority shareholders remained apathetic.

The Dallas & Barry study revealed that, like dual-class equity, tenure voting provided for an increased wedge between ownership and control by allowing insiders to partially sell their holdings while maintaining voting power. The resulting increased agency costs might be offset if there was increased external long-term ownership or a cultural shift in management toward longterm value. However, they found no evidence to support these conclusions. Importantly, six of the twelve companies studied subsequently rescinded their tenure voting structures, primarily because it was not in accordance with the "basic tenet of corporate democracy" that prevails in U.S. companies.¹¹⁰

More recently, tenure voting was the focus of a paper by David Berger, Professor Steven Davidoff Solomon and Aaron Benjamin that advocated for its adoption. Berger et. al. propose tenure voting as a more desirable alternative than dual-class equity to address the problem of short-termism.¹¹¹ Managerial myopia is rising, they claim, for two reasons. First, Berger et. al. argue that holding periods have shortened even among institutional investors.¹¹² Second, they claim that increased shareholder activism has propelled management to be short-sighted. Taken together, they view these things as a threat to the health of the economy.¹¹³

As a solution, the authors argue that tenure voting is a preferable option to dual-class equity. The authors claim tenure voting increases investors' incentive to hold, reduces myopic bias, attracts patient capital, and improves firm culture.¹¹⁴ However, the claim that shareholders will increase their holding due to the promise of greater voting rights has not been supported by any empirical evidence. The other proposals, that tenure voting will reduce myopic bias, attract

¹¹⁰ *See id.* at 612.

¹¹¹ See Berger et. al., supra note 5, at 297.

¹¹² See id. at 298–99.

¹¹³ See id. at 301.

¹¹⁴ See id. at 307–10.

patient capital and improve firm culture, also rely on the assumption that tenure voting will prompt increased long-term ownership and that ownership is not passive. The structure of the tenure-voting plans that Berger et. al. propose are very similar to the structures adopted by the companies in the Dallas & Barry study.¹¹⁵

While all analysts agree that tenure voting can entrench management, no research has analyzed the impact of tenure voting on the likely success of a shareholder activist in a voting contest, such as a vote on a shareholder proposal and short slate proxy contest. Obviously tenure voting reduces an acquirer's ability to take over the board relying on her own voting rights, because not only would they need to acquire a control bloc, they would also have to wait for the stock to mature. Less clear is how tenure voting will affect the outcome taking into account the stances of outside investors with different holding periods. This will be the focus of our theoretical modelling exercise using a weighted voting model in section IV below.

To set the stage, in the next section, we discuss how we compiled the data for our weighted voting model. Surprisingly, we found that no prior academic work has had a focused presentation of investor holding horizons so we also describe our data collection process for the benefit of future scholars.

III. DATA COLLECTION

In order to ground our assumptions in our weighted voting model firmly in reality, we gathered data on portfolio turnover by different groups of institutional investors as well as the investor composition of these firms. Our data on investor holdings comes from the Thomson

¹¹⁵ Berger et. al. advocate for adoption of a High-Low plan with a holding period of three to five years. High voting stock should receive three to five votes and there should be a voting rights cap. *Id.* at 323. All of the companies in the Dallas & Barry study fit into this proposed framework. *See supra* Part II.A.

Reuters Ownership 13F database, a comprehensive database of quarter-end holdings of public equity by institutions that exercise investment discretion over U.S. publicly traded securities with an aggregate value over \$100 million. The sample used for our study spans the period of 1990 to 2015.

A. PORTFOLIO TURNOVER OF INSTITUTIONAL INVESTORS

One important question for tenure voting systems is how frequently do investors turnover their shares. If a tenure voting system awards more votes to shares that have been held for three years or more, for example, who are these long-term investors and how likely is it that investors will hold the stock for that length of time (or longer)? In order to come up with some estimates of these values, we apply two methods to classify institutions into "long-term," "intermediateterm," and "short-term" investors.

In the first method, we impute each individual investor's annualized portfolio turnover rate based on their inter-quartile holdings changes.¹¹⁶ More specifically, the annual portfolio turnover rate is compounded from the quarterly turnover rates, whereas the latter is calculated as the lesser of "purchases" and "sales," divided by the average portfolio size of the last and the current quarters.¹¹⁷ Because we do not observe directly purchases and sales, they are proxied by the total value of increase (decrease) holdings in a quarter-end relative to previous quarter end. Therefore, the annualized turnover rate imputed this way is a lower-bound for the actual turnover rate because it does not include trades that were reverted within the same quarter.

 ¹¹⁶ We follow the procedure outlined in Vikas Agarwal, et. al., *Inferring Reporting-Related Biases in Hedge Fund Databases from Hedge Fund Equity Holdings*, 59 MGMT. SCIENCE 1271 (2013).
 ¹¹⁷ The lesser of purchase and sale is used, instead of the average, so as to be mostly free from the impact of fund flows in and out of the institutional investors that are largely out of the control of the portfolio managers.

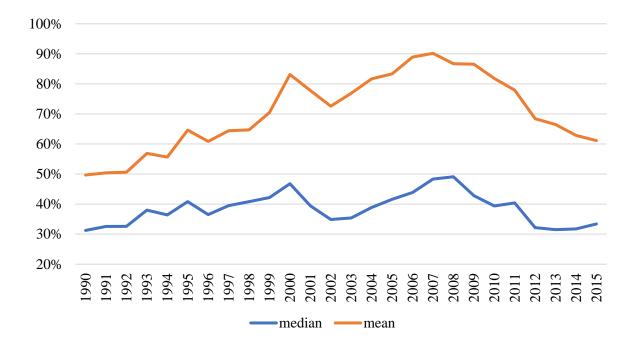
According to Puckett and Yan,¹¹⁸ who compare 13F data with full trading data by some institutional investors (most mutual funds), intra-quarter round-trip trades (which are missed from our imputation due to data limit) account for approximately 20% of a typical mutual fund's trades. The gap is smaller for other institutions that trade less frequently (e.g., pension funds and insurance companies) than the average mutual funds; and vice versa for more actively trading institutions such as hedge funds. Therefore, measures based on inter-quarterly position changes preserve the order among different types of investors in terms of their actual portfolio turnover rates. We classify a 13F institution to be longer-term, intermediate term, or short-term if its' imputed annualized portfolio turnover rate is below 33% (corresponding to an expected holding horizon of shorter than one year). The horizon of individual institutions, though time-varying, are highly persistent.

In the full sample of pooled institution-year panel, the mean (median) annual turnover rate is 73.5% (38.3%), with an interquartile change from 19.5% to 82.2%. Figure 1 shows the average/median turnover of all 13F institutions by year. The figures show that turnover peaked in the years before the last two recessions, and has been on a downward trend since 2008.

Figure 1. Mean and Median Investor Portfolio Turnover

This figure shows the average and median annual turnover rate of all 13F institutional investors from 1990 to 2015. Each investor's annual portfolio turnover rate is compounded from quarterly turnover rates. The latter are calculated as the lesser of "purchases" and "sales," divided by the average portfolio size of the last and the current quarters.

¹¹⁸ Andy Puckett and Sterling Yan, The Interim Trading Skills of Institutional Investors, 66 Journal of Finance 601 (2011).



In the second method, we classify an institution's investment horizon by the category of institutional investors. Based on data shared by Agarwal, Jiang, Tang, and Yang¹¹⁹ and Agarwal, Fos, and Jiang,¹²⁰ we are able to sort all 13F institutions into one of the following broad categories: banks and trusts; insurance companies; asset management companies that are primarily mutual funds; asset management companies that are primarily hedge funds; other asset management companies; investment banks and brokerage; pension funds; endowment and foundations; corporations; and other. The summary statistics of portfolio turnover of all categories are reported in Table 1.

Table 1. Portfolio Turnover by Investor Category

¹¹⁹ Vikas Agarwal, et al., *Uncovering Hedge Fund Skill from the Portfolio Holdings They Hide*, 68 J. OF FIN. 739 (2013).

¹²⁰ Vikas Agarwal, et. al., *Inferring Reporting-Related Biases, supra* note 116.

This table displays the turnover summary statistics by investor category. Based on data shares by Agarwal, Jiang, Tang, and Yang¹²¹ and Agarwal, Fos, and Jiang,¹²² we classify all 13F institutions into one of the listed broad categories.

Category	Median	Mean	SD	Min.	Max.	# Inst.
Banks and Trusts	0.22	0.28	0.24	0	3.95	553
Insurance Companies	0.31	0.43	0.49	0	6.17	166
Mutual Funds	0.43	0.64	0.69	0	9.08	223
Hedge Funds	0.87	1.33	1.34	0	11.02	1,511
Asset Management	0.36	0.60	0.76	0	8.68	2,784
IB and Brokerage	0.42	0.82	1.06	0	7.06	149
Pension Funds	0.20	0.32	0.40	0	4.22	67
Endowment and Foundation	0.29	0.27	0.53	0	8.03	54
Financial Arms of Corps	0.25	0.53	0.88	0	6.40	51
Other	0.19	0.63	1.07	0	8.62	119

Based on the mean turnover rate, we consider hedge funds to be short-term investors; banks and trusts, pension funds, and endowment and foundations to be long-term investors, and the rest to be intermediate term investors. Such a classification conforms to the common perceptions of market participants.¹²³

B. INVESTOR COMPOSITION OF COMPANIES

¹²¹ Vikas Agarwal, et al., *Uncovering Hedge Fund Skill, supra* note 119.

¹²² Vikas Agarwal, et. al., *Inferring Reporting-Related Biases, supra* note 116.

¹²³ Brian J. Bushee, The influence of institutional investors on myopic R&D investment behavior 73 Accounting Review 305 (1998).

Next, we focus on investor composition at the issuer (company) level with regard to investment horizon. This will be important in our weighted voting model. For each companyyear, we compute the average shareholder turnover by calculating the equal- or value-weight average of portfolio turnover rates of all equity investors in a given company-year. The value weights are proportional to each investor's equity holdings in the company at the year-end. Figure 2 plots the time trend. It shows that the average shareholder turnover in a given company has been on the rise up to 2007, followed by a steady decline. The patterns are similar whether we equal- or value-weight investors in the companies. The fact that the value-weight graph stays significantly below the equal-weight graph post financial crisis indicates that large shareholders in public companies are turning over their shares more slowly compared to before.

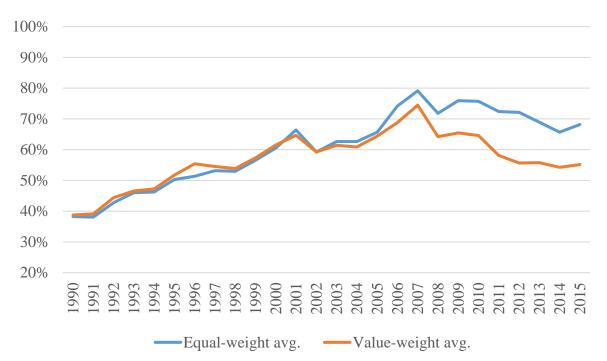
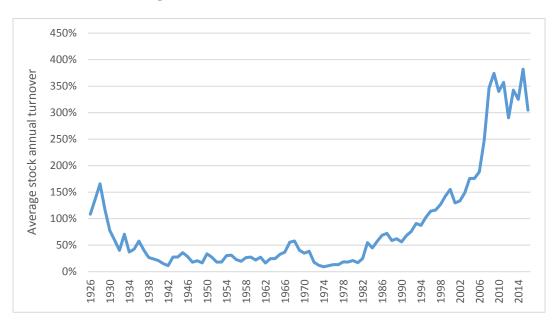


Figure 2. Investor Turnover in an Average Company

This figure shows the average of the shareholder turnover in publicly listed companies. We compute the shareholder turnover of each company by calculating the equal- or valueweighted average of shareholder turnover rates. The value weights are proportional to each investor's equity holdings in the company at the year-end. The blue series indicates the equalweighted average shareholder turnover and the orange line indicates the value-weighted average.

The pattern poses a curious contrast to the common perception that shares are changing hands faster and faster over time. Indeed, we find that at the issuer (share) level, annual turnover has been on the rise all the time since the early 1980s, from an average of 50% annual turnover rate to 300% in the most recent years. That is, during the past three and half decades, the average share of stock changes hands from every two years to every four months. Thus it is tempting to deduce that companies are held by increasingly transient shareholders. This is not the case as shown in Figure 2. The seeming discrepancy is due to the fact that large shareholders in most companies have slowed down their portfolio turnover rates over the last decade, while a small set of investors (e.g., high frequency traders) are driving up the trading volume.



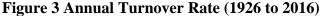


Figure 3 plots the annual turnover rate, averaged over all stock with equal weights, in each year from 1926 to 2016. The annual turnover rate is defined as the ratio of annual trading

volume during the year to the average of the number of share outstanding at the year beginning and year end. The data are taken from the CRSP. The annual turnover rates at the stock level started to trend up in the 1980s and then increased dramatically around mid-2000s, coincided with rise of algorithmic trading. However, it is important to note, as illustrated by Figures 1 and 2, that increasing turnover rates at the stock level do not imply that the typical or most institutional investors are churning their portfolio faster, nor does it suggest that companies are increasingly held by short-term investors.

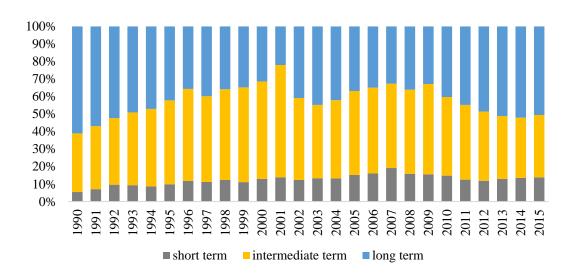
In addition to the summary statistics such as average investor horizon in given companies, it is also important for our purposes to explore the relative composition of shareholders with different horizons, e.g., what percentage of ownership stakes are held by investors with short- or long-term investment horizon. Figure 3 demonstrates the pattern from different angles.

Figure 4. Investor Composition in Publicly Listed companies

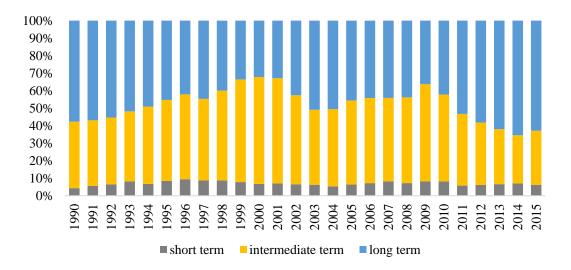
The following panels show the composition of shareholder horizons in publicly listed companies over time. Investor composition is calculated as the percentage stake of each type of investors, and is then averaged (using equal or market-cap weights) over all companies. We use the following classification for investor horizon: short-term (less than one year), intermediate-term (one to three years), or long-term (three or more years). Panels A and B classify each investor by their turnover rate, while Panels C and D classify them by their investor category horizon using Table 1 (e.g. hedge funds have a mean turnover rate of 1.33 so are classified as short-term). Panels A and C use equal-weights to average of companies, while Panels B and D use market-cap weights.

Panel A: By individual investor classification; equal-weights for companies

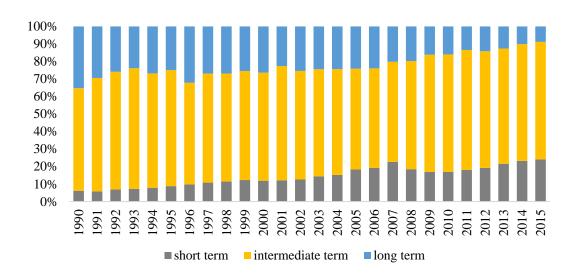
34



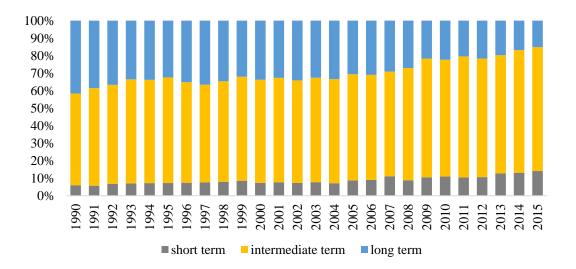
Panel B: By individual investor classification; market-cap weights for companies



Panel C: By investor category classification; equal-weights for companies



Panel D: By investor category classification; market-cap weights for companies



Panels A and B of Figure 4 show investor composition over time. First, we compute the percentage stakes by each type of investors, and then average (using equal or market-cap weights) over all companies in a given year. There has been an increasing number of short-term shareholders in an average company over time; however, the trend is absent if we weigh companies by their market caps. Such a combination suggests that short-term investors have taken increasing stakes in relatively small companies. Long-term shareholders experienced a clear "U"-shaped trend whether equal- or value-weighted: They were shrinking till about early

2000s, and then has been on a steady rise since. By 2015, long-term investors hold 50% to 60% of the shares in companies by equal- and value-weighted averages.

Panels C and D show plots analogous to those in Panels A and B except classifying the time horizon by investor categories. For example, all insurance companies are treated as long-term investors regardless of their individual portfolio turnover rates; and all hedge funds are treated as short-term investors regardless of their individual trading strategies. They show that the only category of short-term investors, hedge funds, have seen their ownership on the rise; while stakes by long-term investors (banks, trusts, pension funds) have been retreating at a comparable pace, leaving the intermediate category mostly stable over time.

IV. MODELING TENURE VOTING

To gain some appreciation for the effect that tenure voting may have on the outcome of corporate contests we will employ a weighted voting model. We have used this model earlier to investigate takeover contests¹²⁴ and to analyze the effect of lowering the size of poison pill triggers on takeovers.¹²⁵ It is a simulation model that estimates the probability of votes favoring management given the distribution of shares among various constituencies with different investment horizons, and assumptions of the influence of third party proxy services on those constituencies.

A. BACKGROUND TO THE MODEL

¹²⁴ Paul H. Edelman & Randall S. Thomas, *Corporate Voting and the Takeover Debate*, 58 VAND. L REV. 453 (2005) [hereinafter "*Corporate Voting*"].

¹²⁵ Paul H. Edelman & Randall S. Thomas, Selectica *Resets the Trigger on the Poison Pill: Where Should the Delaware Courts Go Next?*, 87 IND. L. J. 1087 (2012) [hereinafter "Selectica"].

Following the methodology of an earlier paper by two authors¹²⁶ we partition the corporation's shareholders into seven different constituencies: Management, Dissident, four different institutional groups (Institutions I –IV) and the Public. For each of these groups we make some baseline assumptions about their bias toward management as well as how closely they follow a signal from a third-party proxy advisor (who, for convenience, we identify as ISS.) For this paper we further subdivide the institutions into those who are long-term shareholders and those who are short-term holders of stock. The long-term holders of stock will hold the high-vote shares from tenure voting, while the short-term shareholders will only be able to vote the shares that they own.

To keep things manageable, we will only consider the situation in which a dissident has acquired a substantial stake in the corporation and is pursuing proxy contest. For this application, we construct four institutional blocks in the following way:

- 1. Institutions I and II are the long-term institutional investors. Institution I, including most passive long-term investors, largely follow the advice of ISS. Institution II is the long-term investors who act independently. Most of our results assume that neither of these groups has a pre-existing bias toward or against management's position. Given our interest in the possibility of management entrenchment, we feel that this is the most conservative position to take and for the most part there is little difference in the results if we assume a promanagement bias. We will comment separately on those situations where it matters.
- 2. Institutions III and IV are the short-term institutional investors. We assume that the former follow the advice of ISS and the latter act independently. In either case we will assume that they exhibit a bias against management's position. We think that this assumption is

¹²⁶ Edelman & Thomas, *Corporate Voting, supra* note 124.

consistent with the observed behavior of hedge funds and arbitrageurs taking positions in companies around the time of a corporate event often with the intention to facilitate the change. While this assumption affects the overall size of the probabilities we report, it does not affect the relative sizes and hence does not qualitatively change any of our conclusions. Table 3 gives a qualitative explanation of our assumptions about the behavior of the constituencies and the nature of their holdings. Details of how these assumptions are implemented in our model can be found in the Appendix.

Constituency	Bias toward	Influence of Proxy	Length of Holding	
	Management	Advisor		
Management	Pro	None	Long	
Dissident	Anti	None	Short	
Institution I	Neutral	Strong	Long	
Institution II	Neutral	Weak	Long	
Institution III	Anti	Strong	Short	
Institution IV	Anti	Weak	Short	
Public	Pro	None	Short	

Table 3: Behavioral Assumptions for Major Shareholder Groups

After we specify the distribution of shares among the constituencies we can begin our simulation. We consider two cases: first, when there is a substantial block held by management, and the second, when there is a significant dispersal of shares. The former case is particularly important because it is the most common situation in which tenure voting has actually been

employed.¹²⁷ The latter situation is more speculative as to the potential significance of allowing tenure voting in a dispersed ownership firm. We will investigate how the use of a tenure voting regime changes the likelihood of a management victory. As we will see, the role of the proxy advisor is significant in this analysis.

We are also able to examine how different ways of allocating extra votes in tenure voting might alter the outcome. We consider both 3-1 and 10-1 tenure voting schemes. The former is at the low-end of one reform proposal.¹²⁸ The latter is the most common scheme currently in use.¹²⁹

B. RESULTS OF THE MODEL

1. Concentrated ownership

As discussed earlier, tenure voting is currently limited to firms with large management holdings, usually arising from family-owned firms. Our baseline case consists of Management holding 30% of the stock, Dissident holding 10%. The latter assumption is consistent with the work of Fos and Jiang¹³⁰ who show that in proxy contests, the average dissident stake is close to 9.6%. We also assume that Public retail investors holding is 10% and their vote is biased towards Management. These assumptions are consistent with the estimates given by Broadridge.¹³¹ We will vary the holdings of the institutional investors. Based on our simulations our conclusions are:

¹²⁷ Dallas & Barry, supra note 8, at 593.

¹²⁸ Berger, et. al, *supra* note 5.

¹²⁹ Dallas & Barry, *supra* note 8.

¹³⁰ Vyacheslav Fos & Wei Jiang, *Out-of-the-Money CEO's: Private Control Premium and Option Exercises*, 29 REV. FIN. STUD. 1549, 1560 (2016).

¹³¹ 2017 Proxy Season Review, ProxyPulse, a Broadridge +PwC Initiative, *available at*: https://www.broadridge.com/_assets/pdf/broadridge-2017-proxy-season-review.pdf

Tenure voting is a very effective way for concentrated ownership to entrench itself against aggressive dissidents. However, this benefit decreases as the size of the long-term institutional stake increases. In addition, as the percentage of longterm shares increases there is little added benefit to having tenure voting at a 10-1 ratio over a 3-1 ratio.

 Table 4: Average likelihood of a pro-management vote given an ISS anti-management

 recommendation

	No Tenure Voting	3-1 Tenure Voting	10-1 Tenure Voting
Long term 20%	0.42 (0.11)	0.62 (0.06)	1.00 (0.0)
Long Term 30%	0.36 (0.11)	0.47 (0.02)	0.48 (0.0)
Long Term 40%	0.42 (0.07)	0.47 (0.01)	0.48 (0.0)

In Table 4, we show the effect of tenure voting on the average likelihood of a promanagement vote in the face of an anti-management recommendation from ISS.¹³² The rows show the total amount of stock held by the long-term institutions. The number is the average of the probability of a pro-management outcome given an anti-management recommendation by ISS, where the average is taken over all the ways to share that amount of stock between the two

¹³² Some further explanation of this table is necessary. The first row is obtained by holding the sum of the long-term institutional holdings (Institution I and Institution II) at 21%. This is done for technical reasons to avoid ties in the model. The results are qualitatively the same for all holding in and around 20, however. The remaining shares are allocated evenly between the two short-term institutions (Institution III and Institution IV) with Public getting 10. Numbers reported are obtained by taking the average of the probabilities gotten from the model while ranging over all integral distributions of the 21% between Institution I and Institution II, i.e., we computed the likelihood of a pro-management vote when I1=0 and I2=21, then I1=1 and I2=20, I1=2 and I2=19 etc. then averaged the result. The other rows are computed similarly only with the long-term holdings at 31% and 41% respectively. The number in parentheses is the standard deviation.

types of long-term investors. The number in parentheses is the standard deviation of those probabilities.

At a typical external long-term holding amount of 20%, we see that management can vastly improve its likelihood of a friendly vote by instituting tenure voting, and the more generous the tenure supplement the better. Interestingly, as the size of the long-term holding increases, this benefit decreases. There is still an advantage to management, but it drops by as much as a half while the difference between a 10-1 supplement and a 3-1 supplement disappears. The intuition for this outcome is that as long-term holding increase the number of institutions that take proxy advice increase and so a negative recommendation from the advisor has a larger impact on the outcome. We can see in Table 5 the opposite side of this effect by considering the likelihood of a pro-management outcome given a pro-management recommendation by ISS.

 Table 5: Average likelihood of a pro-management vote given a pro-management

recommendation

	Baseline	3-1 Tenure Voting	10-1 Tenure Voting
Long Term 20%	0.91 (0.05)	0.98 (0.02)	1.00 (0.0)
Long Term 30%	0.92 (0.05)	0.97 (0.01)	0.97 (0.0)
Long Term 40%	0.94 (0.05)	0.97 (0.0)	0.97 (0.0)

Of course this pro-management effect is much more limited because management was already likely to win a contest.

As management's share drops, one still observes a benefit of tenure voting and, on a relative basis, the advantage of tenure voting actually increases. As an example, Table 6 shows the results if management holds only 20% of the stock. As one would expect, the likelihood of

management success is less when its holding is smaller. But when the external long-term holdings are large, the advantage of tenure voting over the baseline stays significant. For example when long-term holdings are 40%, while our baseline no-tenure voting estimate gives management a 27% chance of winning, with tenure voting that increases to between 40% and 44% depending on the bonus. Indeed, the likelihood of success in this instance is nearly identical to that shown in Table 4 when management holds 30% of the stock.

 Table 6: Likelihood of a pro-management vote given an ISS anti-management

 recommendation with small management holding

	Baseline	3-1 Tenure Voting	10-1 Tenure Voting
Long Term 20%	0.18 (0.05)	0.36 (0.13)	0.43 (0.11)
Long Term 30%	0.23 (0.1)	0.38 (0.14)	0.44 (0.11)
Long Term 40%	0.27 (0.12)	0.40 (0.13)	0.44 (0.11)

Hidden in these tables is the importance of how the long-term shares are allocated between those institutions that follow ISS and those that do not. How the distribution of longterm shares, between those that follow ISS and those that do not, affects the likelihood of management success is captured by the standard deviation, the number in parentheses in each cell of Tables 4-6. Each cell represents an average over the way the long-term shares are divided between Institution I and Institution II and so the standard deviation measures how much variation in the probability of management success there is among those different allocations. As an example, in Table 4 we see that under our baseline method of voting the larger the long-term holding, the smaller the standard deviation (from 0.11 to 0.11, to 0.07, reading down the column) and so we conclude that the actual distribution of the long-term shares matters less as the size of that holding increases.

Note that in Tables 4 and 5 the implementation of tenure voting decreases the standard deviation of the probability. That is, the importance of the distribution of the shares between long-term shareholders is less important under tenure voting than regular voting.

This effect reverses in Table 6. The distribution of long-term shares between the two types of institutions becomes more significant with tenure voting than with regular voting. For example, under the baseline method with long-term shares at 20% there is a standard deviation of 0.05, whereas with a 3-1 tenure vote the standard deviation is 0.13, more than double.

Thus, if management instituted tenure voting while holding 30% of the shares with the expectation that they will divest themselves of some of those shares in the future, the result will be to significantly increase their risk in two ways. First, just shrinking their stake lowers the likelihood of winning a proxy contest. We see this clearly by comparing the values in Table 4, where management holds 30% and Table 5 where management holds only 20%, although the effect is moderated in the case of a 10-1 bonus.

The second source of risk is in the distribution of the long-term shares. We see that the standard deviation of the outcomes varies more with tenure voting than in regular voting. Since we do not know, *a priori*, what that distribution might look like in a counter-factual world of tenure voting and small management holding, management will take on all of that risk. As we will see now, this is even more important in the case of dispersed shareholding.¹³³

2. Dispersed Ownership

¹³³ We did similar runs under the assumption that the long-term institutions had a more pro-management bias. While the likelihood of a management win increases, the overall pattern we describe remains.

For analyzing the use of tenure voting in dispersed ownership, we will assume that Management holds 3% of the shares and the hostile Dissident still holds 10%. We will consider two cases, one in which the long-term institutions hold a total of 21% and a second case in which they hold 31%.¹³⁴ We assume the remaining shares are divided equally between the short-term institutions with the Public holding 10%. Based on our simulations our conclusions are:

In the dispersed shareholder setting there is little advantage to management to implement tenure voting in light of a negative ISS recommendation. There is some benefit to management in light of a positive ISS recommendation. What benefit there is depends more on the distribution of the shares between the longterm shareholders than on the amount that the long-term shareholders own. Often there is little or no benefit at all.

Table 7: Likelihood of pro-management vote with long-term holding 21% given theamount held by Institution I shareholders.

Institution I Shares	Baseline Vote		3-1 Tenure Voting		10-1 Tenure Voting	
	+	-	+	-	+	-
5	0.54	0.13	0.63	0.18	0.56	0.44
10	0.71	0.14	0.79	0.16	0.81	0.19
15	0.70	0.04	0.83	0.05	0.93	0.07
20	0.75	0.04	0.90	0.07	0.93	0.07

¹³⁴ The first case is motivated by our analysis that on average 20% of a dispersed firm's shares are longterm. The second case is to consider the effect if there is an increase of long-term shareholding in response to the introduction of tenure voting. The non-round values of 21 and 31 are to avoid certain possible rounding pathologies in the model. Numbers in and around these values give similar answers.

In Table 7 we show the likelihood of a pro-management vote when the long-term shareholders have a total of 21% of the shares. The rows are indexed by what share of that 21% is held by Institution I investors-those who follow the advice of the proxy-advisor. We have only listed 5 of those cases, but the amounts not listed are consistent with the pattern shown. For each situation we show the probability of a pro-management vote given a pro-management recommendation from ISS (the + column) or an anti-management recommendation (the – column).

What do we observe in this table? When the number of shares held by Institution I, those that follow ISS, is small, there is little difference between the results of a regular vote and one with a tenure voting rule of 3-1, in the face of a negative ISS recommendation. As the number of shares held by Institution I increases, there is some, though limited, benefit to management of a 3-1 bonus if the ISS recommendation is positive.¹³⁵

A similar pattern emerges when the tenure voting is 10-1. The difference is that when Institution I holds little stock then a 10-1 tenure voting scheme can be quite helpful to management in the face of an anti-management recommendation, e.g., if Institution I has 5% of the stock then we get an improvement from 0.13 to 0.44 in the probability of winning. But as Institution I's holdings increase (from 5 % to 10%, etc.) this advantage all but disappears: the 10-1 voting bonus probabilities decrease from 0.44 when Institution I has 5% to 0.19 when it holds 10% and then down to 0.07 when Institution I holds 20 % of the shares. The 0.07 probability of management success under 10-1 tenure voting is little better than the 0.04 probability under standard voting.¹³⁶

¹³⁵ This same pattern appears even if we assume a more pro-management bias of the long-term investors. Because of the similarities we are not displaying those figures.

¹³⁶ In the case of 10-1 tenure voting a more pro-management bias for the long term shareholders has an effect if the ISS recommendation is negative. In that circumstance the advantage to management does not

Institution I Shares	Baseline Vote		3-1 Tenure Voting		10-1 Tenure Voting	
	+	-	+	-	+	-
5	0.55	0.17	0.56	0.44	0.56	0.44
10	0.54	0.13	0.65	0.18	0.56	0.44
15	0.71	0.14	0.81	0.16	0.81	0.19
20	0.69	0.04	0.85	0.05	0.93	0.07
25	0.75	0.04	0.91	0.06	0.93	0.07

 Table 8: Likelihood of pro-management vote with long-term holding 31% given the

 amount held by Institution I shareholders

When the long-term shareholders combine to hold 30% of the shares the advantage of tenure voting is more robust as can be seen in Table 8. The effect of tenure voting is most important when the long-term shareholders who follow the proxy advisor hold very few shares relative to the other long-term shareholders. Here the likelihood of a pro-management vote in the face of a negative recommendation is over twice the baseline in both the 3-1 and 10-1 tenure voting schemes (0.17 versus 0.44 for both when Institution I holds 5%.) This advantage persists in the 10-1 scheme even when Institution I holds 10% of the shares.

When Institution I is the dominant long-term shareholder, there is only a modicum of benefit to management of initiating tenure voting. While the likelihood of success given a promanagement recommendation increases a little (from 0.75 to between 0.90 and 0.93 for 3-1 and

wash-out as the number of shares held by Institution I increases but stabilizes at around 3 times the baseline value.

10-1 schemes, respectively) there is little improvement for management if the recommendation is negative (from 0.04 to 0.07 in the 10-1 scheme.)

V. CONCLUSIONS

Tenure voting systems have been the subject of great attention in recent years. As the flaws of dual-class recapitalizations have become more apparent to institutional investors, tenure voting has emerged as a potential alternative that could be beneficial to both corporate management and shareholders. Tenure voting, in theory, gives all investors the equal access to superior voting power as long as they are willing to hold the shares for the long-term, and hence is not considered a natural entrenchment device for the insiders.

In this paper, we use a weighted voting model to show that when corporate management holds a large block of company stock prior to the implementation of tenure voting, and retains at least 20-30% of the total number of company shares on a long term basis, then tenure voting will insure that corporate managers maintain control of the company even in the face of an attempted change of control transaction by a highly motivated dissident shareholder. The net beneficial effect is tempered if long-term ownership should increase significantly. However, if corporate management chooses to sell off its company stock over time, so that its ownership levels drop down to a low percentage level, then the use of tenure voting systems does little to protect management control in a proxy contest for corporate control.

Tenure voting has some preferable features to dual-class voting systems as those systems permanently (or until a sun-set kicks in, usually a long time down the road) insulate corporate management so long as they control the high vote stock because the other investors cannot remove them. Tenure voting, by comparison, only preserves management's power if they

48

maintain a large equity investment in the company, which also better aligns their interests with those of investors. In this regard, we perceive the tenure voting system an improvement over a dual-class in balancing managerial control and shareholder rights. However, there are many other costs and benefits of the two systems that we have not compared, such as the negative effect that tenure voting has on the liquidity of trading markets. In light of these factors we cannot definitively conclude that one system is clearly preferable to the other.

TECHNICAL APPENDIX

In this appendix, we give a few more details about the voting model used in this paper. We have employed this model in two earlier papers to investigate the effect of the distribution of shares among institutions on outcomes in corporate proxy contests.¹³⁷ The details of the model can be found in these earlier papers.

The model is designed to incorporate two important aspects of voting in corporate governance. The first is that there are blocs and not just single shares being voted, and second that there is an external signaler advising at least some of the participants on the vote. The model itself is a probabilistic version of a standard weighted voting model from the theory of cooperative games.¹³⁸ Each bloc will vote for management with a certain probability. For some of the blocs that probability is a function of a signal from a third party advisor. The advisors signal is, itself, probabilistic in nature. Based on these probabilities and share percentages we compute the likelihood of a pro-management vote.

To fully specify the model, we have to choose a distribution of shares among the voters and for each voter specify the likelihood that he will vote for management given a signal from the third party. In Section IV we specified the share distribution for each of our scenarios. What is left for us to describe is how the voters cast their votes in each of the two contests we describe.

For our investigations we will make the following assumptions: Management always votes for itself and Dissident always votes for itself. Of the two long-term holders Institution I votes according to the recommendation of ISS,¹³⁹ while Institution II is insensitive to the advisor

 ¹³⁷ Edelman & Thomas, Corporate Voting, *supra* note, Edelman & Thomas, Selectica, supra note.
 ¹³⁸ The reader might consult GUILLERMO OWEN, GAME THEORY, 212 (3d ed. 1995) (1968) for an introduction to voting games.

¹³⁹ In the notation of our earlier paper, p = r(0,0,x), where *x* is taken from the probability density *f* or *g* depending on whether ISS gives a For or an Against. This specification assumes zero bias toward management. When we assume pro-management bias we use p=r(0,3,x).

but without any management bias.¹⁴⁰ For the short-term holders, Institution III follows ISS and has an anti-management bias,¹⁴¹ while Institution IV is insensitive to ISS but also has an antimanagement bias.¹⁴² The Public votes randomly with a pro-management bias.¹⁴³ For a discussion of the sensitivity of the model to various parameters the reader should look at our earlier paper.

 $r_{140}^{140} p = r(20,0, x)$. This specification changes to p = r(20,3, x) when we assume a pro-management bias. $r_{141}^{141} p = r(0,-.3, x)$ $r_{142}^{142} p = r(20,-.3, x)$ $r_{143}^{143} p = 0.75$

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