


# The Distribution of Voting Rights to Shareholders

Vyacheslav Fos   
*Boston College Carroll School of Management*  
fos@bc.edu (corresponding author)

Clifford G. Holderness  
*Boston College Carroll School of Management*  
clifford.holderness@bc.edu

## Abstract

This is the first comprehensive study of the distribution of voting rights to shareholders. Only individuals owning stock on a record date may vote. Firms, however, reveal record dates after the fact 91% of the time. With controversial votes, firms are more likely to do the opposite, and this tendency is associated with a lower passage rate for shareholder-initiated proposals. The New York Stock Exchange sells nonpublic record-date information to select investors. When stocks go ex vote, prices decline and trading volume surges, suggesting that activist investors are buying marginal votes. These trends are most pronounced with controversial votes.

## I. Introduction

This is the first comprehensive study of the distribution of voting rights to shareholders. We find a wide array of evidence using over 100,000 distributions of voting rights to shareholders that firms and stock exchanges change when they notify investors of a voting record date based on specific proposals and about which sophisticated investors are often notified before retail investors find out about them. Only shareholders who are holders of record on a voting record date may vote at a forthcoming meeting.<sup>1</sup> Trading volume is higher than normal both

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<sup>1</sup>As Kahan and Rock ((2008), p. 1263) put it, “Voting rights rest with the record holder on the record date.” Kahan and Rock is an excellent review of the many fine points of shareholder voting.

before and immediately after a record date. Stock prices decline significantly when they go from cum vote (when a firm's stock trades with the vote for a forthcoming shareholders' meeting) to ex vote (when the stock trades without a vote at the meeting). These changes in notification, trading volume, and stock prices are correlated with both how controversial votes are likely to be and how votes ultimately turn out.

The right to vote is one of only three distributions made to shareholders. The other two distributions, cash dividends and rights offers, have been studied for years, with well in excess of 100 papers studying ex-day changes with cash dividends alone (Elton, Gruber, and Blake (2003)).<sup>2</sup> Moreover, the most common of the three distributions for most firms is the right to vote because this distribution must occur before each shareholder meeting. Finally, voting is central to how shareholders control agency costs and influence key corporate decisions, as witnessed by the many papers on shareholder voting.<sup>3</sup> The conclusion of this article is that historical neglect on the part of both academics and regulators of a key part of any shareholder vote—the actual distribution of voting rights to shareholders—is not warranted by the evidence.

To distribute votes, a firm must first set a record date. Only shareholders of record on that date may vote at the forthcoming meeting. Investors must then be notified of this date. We find that in 91% of the cases firms file proxies to notify investors of the record dates after those dates have occurred. Such ex-post notification stands in sharp contrast to the other major distribution to shareholders, cash dividends, where record dates are inevitably announced well in advance. We also find that whether firms announce record dates in advance is associated with the types of votes that are to be brought before shareholders and the eventual outcomes of these votes. Notification of a record date seems to be one way that managers can influence how shareholders vote.

What we found to be even more unexpected is that stock exchange officials also influence the voting process by revealing record dates to select investors, often before those dates occur and before the public learns of the dates through proxy filings. The New York Stock Exchange (hereafter the "NYSE" or "Exchange") requires that firms report forthcoming voting record dates as part of its "self-regulation" initiative. The Exchange then sells this information to select investors. We study these private sales of nonpublic information, which include other potentially valuable information, for the first time. These sales seem to conflict with a core principle of federal securities laws, namely that all investors must have equal access to material information.

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<sup>2</sup>Elton and Gruber (1970) were the first to study stock-price changes with cash dividend payments. Dolley (1934), in one of the important precursors to the modern event study methodology, was the first to study what happens when stocks go ex rights.

<sup>3</sup>Yermack (2010) reviews the role shareholder voting plays in corporate governance in general. Studies of the impact of shareholder voting on specific corporate decisions include (among many other papers) Li, Liu, and Wu (2018) (mergers and acquisitions); Holderness (2018) (stock issuances); Fos, Li, and Tsoutsoura (2018) (CEO turnover); and Cai and Walkling (2011) (executive compensation). Hu and Black (2007), Kahan and Rock (2008), and Brav and Mathews (2011) all address "empty voting," which occurs when a holder of stock on a voting record date subsequently sells the stock before the shareholders' meeting but still votes at that meeting. In this article, we address none of these important issues associated with shareholder voting so that we can focus on the distribution of votes to shareholders.

Even when a proxy has not been filed and there is no exchange notification (because a firm is not NYSE-listed), we document many cases where at least some investors learn of a forthcoming voting record date and trade accordingly.

Overall, notification of voting record dates in the United States stands in sharp contrast to the practice in Europe, where by law all investors must be notified at the same time and well in advance of the dates themselves. Thus, in Europe, but not in the United States, investors know whether they are trading stock that is cum vote or ex vote. In the United States, managers and exchange officials can influence whether investors know if a stock is cum vote or ex vote, thereby potentially shifting the balance of power between buy-and-hold shareholders and activist investors at a forthcoming shareholders' meeting. Brav, Cain, and Zytznick (2022) find that retail investors are typically more supportive of management than institutional investors. Because retail investors presumably learn of voting record dates exclusively through proxies, this might help explain our finding that managers are more likely to file proxies before record dates with nonregular votes, which often are contentious and close, than with regular votes, which typically are neither.

We also document what happens to stock prices and trading volume when votes are distributed, that is, when stocks go from cum vote to ex vote. Trading volume is typically higher than normal before a stock goes ex vote. It then declines around the record date, apparently reflecting uncertainties regarding when trades clear and sellers thus lose the right to vote (an uncertainty not found with cash dividends, where stock exchanges set explicit ex days). Once stocks have clearly gone ex vote, an immediate surge in trading can occur even though the outcome of the vote has yet to be determined. Such a surge raises the possibility that some voting shareholders are motivated primarily by the desire to secure private benefits and only secondarily by opportunities to increase a firm's value, a scenario that has received little attention to date in the academic literature.

To measure what happens to stock prices when they go ex vote, we use the methodology pioneered by Dolley (1934) to study the distribution of rights to shareholders, and subsequently by Elton and Gruber (1970) and many others to study the distribution of cash dividends to shareholders. Manne (1962), in a seminal paper that was one of the first to propose that shareholder voting matters, called for a comprehensive study to quantify what happens to stock prices when they go from cum vote to ex vote. Surprisingly, ours is the first such study. We find that stock prices typically decline when votes are distributed – that is, when stocks go ex vote. The magnitude of this decline varies with how controversial a vote is expected to be and how investors are notified of the record date. For example, ex-day declines average 66 basis points when proposals submitted by dissident shareholders are involved.

We interpret these stock-price declines as reflecting activist investors' buying of marginal votes; these declines, in other words, represent the price that must be paid to acquire a marginal vote. This decline is also relevant for individuals who are selling stock. Here the situation is fundamentally different from what occurs with cash dividends. With cash dividends, leaving aside any differences in dividend and capital gains tax rates, sellers will receive the same total amount whether they sell a stock cum cash dividend or ex cash dividend. With the distribution of votes, in contrast, when someone sells a stock ex vote instead of cum vote they will lose the

amount of the ex-day decline; in other words, they lose the value of a marginal vote. This will be especially relevant for retail investors who are uninterested in voting and instead want to sell their stock for as high a price as possible.

Finally, our investigations suggest that the dynamics of shareholder votes vary from one case to another. With some votes that are controversial and close, there are few changes around the ex-vote date. It appears that these votes are decided primarily by buy-and-hold shareholders. With other votes that are controversial and close, however, there are marked changes in trading volume and stock prices around the ex-vote date. These changes are consistent with activist investors who are willing to pay a higher cum-vote stock price to gain additional influence over a forthcoming vote.

The article is organized as follows: We start by studying two recent distributions of voting rights that involved contentious issues for shareholders to decide. These two cases reveal several novel issues that can arise when voting rights are distributed to shareholders, and they motivate many of our subsequent investigations. We also summarize the limited literature that touches on the distribution of votes to shareholders. We then turn to our empirical investigations, which involve more than 100,000 distributions of voting rights for the period running from 1996 to 2018. We first investigate how and when investors are notified by firms and stock exchanges of voting record dates. We then document what happens to trading volume and stock prices when stocks go from cum vote to ex vote. Lastly, we discuss the implications of our empirical findings for better understanding the underlying dynamics of corporate voting; the influencing of shareholder votes by managers and stock-exchange officials; and the price of a marginal vote. In all of these areas, we raise policy questions and identify promising avenues for future research.

## II. Distributions of Two Contentious Votes and Literature Review

Because to date there have been no systematic studies of the distribution of votes to shareholders, we identify issues for empirical investigation at the outset by studying the distributions of two contentious votes, one involving a proxy contest at DuPont in 2015 and the other involving a going-private proposal at AmTrust in 2018. We choose these particular cases not because they are representative; clearly, they are not. We choose them because we expect them to be outliers, and outliers are helpful in identifying empirical regularities that can then be studied with larger samples. We then discuss what, if anything, the existing literature has to say about the issues identified by these two cases specifically and the distribution of votes to shareholders more generally.

### A. DuPont Proxy Contest

In 2015, Nelson Peltz and three colleagues from Trian Fund Management ran for seats on the 12-person board at the DuPont Corporation, the fourth-largest chemical company in the world at the time. DuPont's management strenuously

opposed their election. During this proxy contest, Trian spent \$8 million, with 175 people contacting shareholders, while DuPont spent \$15 million, with 200 people contacting shareholders. Even small retail shareholders were contacted personally by the opposing parties in what quickly became an intense battle for shareholder support.

On May 13, 2015, DuPont announced that all four of Trian's nominees had been defeated as had the proposal to repeal recent changes in DuPont's bylaws. Nelson Peltz himself received 46% of the votes cast. If any of DuPont's three largest shareholders had changed their vote, Peltz would have been elected (although none of his colleagues would have joined him). Large institutional shareholders voted differently ("Large Investor Vote Varied in DuPont Proxy War." *The News Journal*, Sept. 2, 2015). There was speculation in the financial press that small retail investors, who held about one-third of DuPont's stock, voted heavily for management ("DuPont's Swing Voter: The Small Investor." *Wall Street Journal*, May 7, 2015).

Key events as well as the trading volume and stock returns around the distribution of the votes for this proxy contest are reported in [Table 1](#). Our primary goal in studying DuPont (and later AmTrust) is to identify issues that might merit investigation using our full sample of over 100,000 observations. Nevertheless, we conducted investigations to ascertain whether the significant changes reported in [Table 1](#) for Mar. 6, 16, and 17 might have been influenced by factors other than the stock going ex vote. We found little evidence along these lines for Mar. 6 and 17, but some evidence for Mar. 16.<sup>4</sup>

There are several initially perplexing aspects of the timing of the events referenced in [Table 1](#). Most notably, the initial public announcement of the Mar. 17 voting record date came through a proxy filed on Mar. 23. This retroactive

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<sup>4</sup>Peltz began accumulating DuPont stock in Mar. 2013 and went public with his stake and complaints about corporate management on July 17, 2013, a year-and-a-half before the proxy contest. Over this time, there were numerous press reports of Peltz's criticism of DuPont's management and their response to those criticisms. Trian filed a preliminary proxy on Feb. 11, 2015, and DuPont filed a preliminary proxy on Feb. 27. We could find no reports of events on Mar. 6, 2015, the date when the NYSE notified subscribers of its service (but not the public) on the voting record date of Mar. 27. DuPont did file another preliminary proxy on Mar. 6, but it was after the close of trading. On Mar. 11, there were press reports that DuPont and Trian were trying to settle their dispute. On Mar. 12, Peltz appeared on the CNBC television network and revealed that he had rejected DuPont's offer of one board seat, describing it as "not enough." On Mar. 13 (after the close of trading) DuPont filed its third preliminary proxy, noting this offer and Peltz's rejection of it. None of these preliminary proxies specified a voting record date. Press reports on Mar. 13 indicated that "DuPont's shares were little changed in after-market [trading]." There were, however, big declines in stock prices and large increases in trading volume on Monday, Mar. 16 and Tuesday, Mar. 17 as DuPont's stock started to go ex vote. On Mar. 16, there was a press report in which Trian claimed "strong interest" among large DuPont shareholders in Trian board representation. Also on Mar. 16, Merrill Lynch downgraded its rating of DuPont from "Buy" to "Underperform." On Mar. 17 during trading hours, DuPont filed yet another preliminary proxy and once again did not specify a record date. Interestingly, Mar. 17 was the record date. Given that Delaware law prohibits boards from retroactively setting record dates and given that the NYSE had been informed of the Mar. 17 record date some time earlier, it is safe to conclude that when DuPont's management filed this preliminary proxy it knew the record date but chose not to disclose it. On Mar. 23, before the start of trading, DuPont filed a definitive proxy that finally identified the voting record date as Mar. 17. Neither DuPont's stock price nor its trading volume was unusual on that day. Some of this information comes from an ISS report released on Apr. 26, 2015. We also consulted Edgar filings and searched the internet for relevant news stories.

TABLE 1  
 DuPont's Stock Returns, Trading Volume, and Key Events Around the Distribution of  
 Voting Rights to Shareholders in the 2015 Proxy Contest

Table 1 reports Dupont's excess stock returns, calculated using the Fama–French 3-factor model, which is estimated from 360 to 60 days before the record date. Trading volume is the number of DuPont shares traded. Data are obtained from CRSP and the NYSE. The record date of Mar. 17 determined which shareholders could vote in the 2015 proxy contest involving Trian's proposed directors and bylaw changes.

	Excess Returns (%)	Trading Volume	
Feb. 27	0.04	3,596,192	
Mar. 2	0.37	3,263,524	
Mar. 3	-0.23	4,021,870	
Mar. 4	0.54	3,120,391	
Mar. 5	0.25	3,661,119	
Mar. 6	0.96	7,559,485	NYSE reports record date of Mar. 17 to its subscribers
Mar. 9	0.24	9,007,420	
Mar. 10	1.94	7,770,743	
Mar. 11	0.73	7,544,163	
Mar. 12	0.21	7,837,543	"Academic" Cum Date
Mar. 13	0.71	8,904,227	"Academic" Ex Date
Mar. 16	-5.46	15,913,916	
Mar. 17	-2.80	16,473,563	Record Date
Mar. 18	0.70	8,498,122	
Mar. 19	-1.28	5,979,517	
Mar. 20	-1.08	8,482,657	
Mar. 23	0.30	4,295,930	Proxy publicly identifies Mar. 17 record date for first time
Mar. 24	-0.46	3,992,941	
Mar. 25	-1.03	5,073,101	
Mar. 26	-0.13	4,605,833	
Mar. 27	-0.23	4,149,506	
Mar. 30	0.17	4,074,233	

announcement would seem to have prevented investors from purchasing additional shares to influence the outcome of the vote, so there should have been no change in trading volume or stock prices around the already-passed voting record date. To the contrary, there were significant changes in both. Moreover, many of these changes occurred not on the day academic research generally identifies as the effective ex-vote date (Mar. 13), which is two trading days before the record date to give stock trades time to clear (more on this timing below), but over the following two trading days.

The NYSE, where DuPont was listed, requires that firms notify the Exchange at least 10 days before any distribution to shareholders. DuPont so notified the Exchange but because this is a self-regulatory requirement the Exchange is not obligated to release such information. The Exchange does, however, sell such information through its Corporate Actions Reports (the NYSE Group Proxy Meeting File), a subscription-based service that has been criticized for its high prices ("Is NYSE's Corporate Actions Monopoly Broken by 'Disruptive Data Vendor'?" *Forbes*, Sept. 18, 2017).<sup>5</sup> On Mar. 6, the Exchange notified its subscribers of the Mar. 17 record for DuPont, but it did not notify the public at large. Table 1 shows that daily trading volume in DuPont stock doubled on this day and remained

<sup>5</sup> Exchange Data International, a London-based vendor, has launched a service that will cost less than half of what the NYSE charges. It is not immediately clear how such competitors to the NYSE will obtain voting record date information, at least before it is announced in a proxy. Firms release this information to the NYSE, and we presume that the information is then proprietary to the NYSE. Resale of this information by third parties could raise legal concerns.

abnormally high through the record date. DuPont's stock returns were also abnormally high for several days, beginning on Mar. 6.

DuPont established Mar. 17 as the record date for determining who could vote. That is, only individuals who held title to DuPont stock at the close of exchange trading on Mar. 17 would be eligible to vote on Trian's proposals. Stock trades, however, do not clear instantaneously. At the time, the SEC enforced a  $T + 3$  rule (it has since moved to a  $T + 2$  rule), which requires that all stock trades clear within three trading days. Thus, an individual buying DuPont stock on Mar. 12 (three trading days before the record date because of a weekend) and holding the stock until after the record date would have effectively been guaranteed the right to vote in the proxy contest. This is why academic research typically designates the day a stock goes effectively to ex vote as two trading days before the record date, or in this case Mar. 13. But could someone who sold DuPont stock on Mar. 13 still have voted on Trian's proposals? Practitioners tell us and academic research confirms that the speed at which trades clear, that is, how quickly title passes, varies with a number of factors involving the seller, the buyer, the firm, and market conditions at the time (Hasbrouck, Sofianos, and Sosebee (1993), Angel (1998)). Accordingly, it is hard to predict exactly when a given trade will clear other than that it will clear within three trading days. Consequently, an individual who sold DuPont stock on Mar. 13 could have lost the right to vote if the sale happened to clear before the close of trading on the record date of Mar. 17. We believe that this uncertainty, combined with the fact that stock exchanges do not set explicit ex days for distributions of votes, explains why we observe no sharp reaction in either trading volume or stock returns on Mar. 13 (as would have been the case if cash dividends were involved because with these distributions stock exchanges set explicit ex days) but spread out over the following two trading days.

DuPont's raw stock price declined by \$5.82 (untabulated) or approximately 8% (adjusted for market changes) over the day before the record day and the record day. (For most empirical analyses, we use a 3-day window starting at Day  $-2$ . DuPont's abnormal return within this window was  $-7.46\%$ .) Because cash flows would have been the same whether someone bought DuPont stock cum vote or ex vote, the ex-day stock price decline represents the price investors were willing to pay for an additional or marginal vote for the shareholders' meeting, which would determine the fate of Trian's proposals. These figures also represent the amount someone would have lost if they had sold DuPont stock after the ex day instead of before it.

Trading volume around the ex day is also notable. The increase in trading volume before DuPont's stock went ex vote seems to reflect an accumulation of stock by activist investors seeking to influence the outcome of the proxy contest. We have a greater challenge in understanding the increase in trading volume immediately after DuPont's stock went ex vote. If both sides believed that their approach would maximize firm value, it is unclear why trading volume would increase before the outcome of the vote was determined, which in this case would be weeks later at the annual meeting.

In contrast to the pronounced changes around the ex-vote date, there were few changes in either the stock returns or trading volume when DuPont filed a (definitive) proxy statement on Mar. 23, which was the first announcement of the record

date to the public at large.<sup>6</sup> The announcement of the outcome of the vote on May 13 was associated with an abnormal return of almost  $-7\%$  and a significant increase in trading volume (untabulated).<sup>7</sup>

## B. AmTrust Going Private Vote

In 2018, the chief executive officer and majority shareholder of AmTrust Financial Services (“AmTrust”), a provider of insurance services in the specialty property and casualty markets, proposed taking his company private. This proposal needed the approval of a majority of the minority shareholders, many of whom complained that the going-private offer was too low.

On Apr. 9, AmTrust’s management filed a preliminary proxy detailing its going-private proposal with an offer price of \$13.50 per share (Table 2). As is the case with preliminary proxies, the record date for determining which shareholders could vote on the going-private proposal was left blank.

On Apr. 26, the activist investor Carl Icahn secretly began accumulating AmTrust stock. By May 7 he had accumulated 5% of the stock. On May 17 Icahn revealed his activity by filing an initial 13D, at which time he owned 9.4% of AmTrust’s stock (or 17% of the stock needed to approve the going-private proposal).

AmTrust’s board, however, had established Apr. 5 as the voting record date but did not publicly announce that date until it filed a definitive proxy on May 4. When the company filed its preliminary proxy on Apr. 9, it left the record date blank even though the company had already set the record date as Apr. 5 because Delaware law (in the state where it was incorporated) prohibits boards from setting record dates retroactively (8 Del. C. 1953, §213). Consequently, all of Icahn’s stock purchases occurred after the record date, and thus Icahn could not vote on the going-private proposal. Icahn filed a lawsuit against AmTrust’s management, alleging that he and the other “plaintiffs bought many of its shares after Apr. 6 but before May 4, 2018, thus purchasing shares that they could not have known lacked voting rights” (“Icahn et al. v. Barry D. Zyskind et al., “Verified Complaint Filed on May 21, 2018 in the Court of Chancery of the State of Delaware,” ¶128”). In other words, Icahn is alleging that he (and his co-plaintiffs) did not know of the record date before the definitive proxy was filed. AmTrust’s management responded that it had “complied with all applicable rules in setting and disclosing the record date” (“AmTrust Delays Going-Private Vote – Firm to Meet with Icahn as Count Shows Backing from Minority Holders Falls Short.” *Wall Street Journal*, June 5, 2018).

The shareholders’ meeting at AmTrust was postponed, but the voting record date remained Apr. 5.<sup>8</sup> Management increased the offer price to \$14.75 per share.

<sup>6</sup>There was no mention of a voting record date in a DuPont press release of Jan. 8, a DuPont letter to shareholders on Feb. 17, a Trian press release on Feb. 5, or in a Trian letter to shareholders on Feb. 11.

<sup>7</sup>After his defeat, Peltz predicted that DuPont would continue to miss its own performance targets. This turned out to be the case. Ellen Kullman resigned as CEO in Nov. 2015. In the following month, DuPont agreed to merge with Dow. The merger resulted in the separation of the major businesses, something that Peltz had originally sought.

<sup>8</sup>The latter decision suggests that AmTrust’s management either liked the shareholder base from the original record date (compared with what the base might have been with a new record date) or that management wanted some shareholders to lose interest as they sold stock over time, thus diminishing their incentive to vote on the going-private proposal.



TABLE 2

**AmTrust's Stock Returns, Trading Volume, and Key Events Around the Distribution of Voting Rights to Shareholders in the 2018 Going-Private Proposal**

Table 2 reports AmTrust's excess stock returns, are calculated using the Fama–French 3-factor model, which is estimated from 360 to 60 days before the record date. Trading volume is the number of AmTrust shares traded. Data are obtained from CRSP and the 13D filed by Carl Icahn on May 17. The record date of Apr. 5 determined which shareholders could vote on the 2018 proposal to take AmTrust private. The proposal was made by the CEO, who owned the majority of the stock. Passage of the proposal was conditional on the approval of a majority of the minority shareholders.

	<u>Excess Returns (%)</u>	<u>Trading Volume</u>	
Mar. 29	−0.10	496,540	
Mar. 30	−0.76	752,733	
Apr. 2	0.06	904,207	"Academic Cum Date"
Apr. 3	0.15	469,293	"Academic Ex Date"
Apr. 4	0.65	412,337	
Apr. 5	−1.72	344,492	Record Date
Apr. 6	0.87	714,543	
Apr. 9	0.87	381,383	Preliminary proxy does not identify already-set record date
Apr. 10	−0.61	667,277	
Apr. 11	2.54	709,840	
Apr. 12	−2.05	1,358,872	
Apr. 13	−0.12	826,464	
Apr. 16	−0.09	487,997	
Apr. 17	−0.31	1,067,576	
Apr. 18	0.37	525,512	
Apr. 19	−0.43	692,475	
Apr. 20	0.20	392,657	
Apr. 23	−0.22	1,037,815	
Apr. 24	−1.46	1,222,508	
Apr. 25	1.34	526,019	
Apr. 26	1.61	858,757	Icahn starts buying AmTrust stock
Apr. 27	0.48	1,015,306	
Apr. 30	0.90	462,026	
May 1	1.53	2,885,946	
May 2	−0.12	5,174,797	
May 3	0.70	2,408,089	
May 4	−0.72	2,431,234	Proxy publicly identifies Apr. 5 record date for first time
May 7	1.06	4,036,827	Icahn crosses 5% ownership threshold
May 8	−0.29	3,167,099	
May 9	−0.74	997,451	
May 10	0.14	1,193,960	
May 11	0.36	1,037,224	
May 14	−0.46	972,061	
May 15	−0.26	1,145,978	
May 16	−0.09	866,131	
May 17	−0.31	3,010,582	Icahn files initial 13D revealing 9.4% stake
May 18	2.88	8,241,798	
May 19	−0.27	4,001,529	

Eventually, the going-private proposal received the support of 67.4% of the minority shareholders plus Icahn, who had no votes to cast in the matter because his stock was purchased ex vote. The going-private transaction closed in Nov. 2018.

### C. Literature Review

There are no existing papers that focus on the distribution of votes to shareholders and only a handful of papers that touch in passing on some of the issues raised by the two preceding cases. Consider what is perhaps the most obvious question: What happens to stock prices when they go from cum vote to ex vote? Elton et al. (2003) report that over 100 papers study what happens to stock prices when they go ex with cash dividends. But there are no papers focusing on what happens to stock prices with the other major distribution to shareholders, the right to vote. We are aware of only three studies that purport to report findings regarding

what happens to stock prices when they go ex vote, albeit all three papers focus on proxy contests and not on the distribution of votes per se: Dodd and Warner (1983), Ghosh, Owers, and Rogers (1992), and Huang (2005). Unfortunately, all three papers measure stock-price changes immediately after the voting record day. By this time, however, the stocks had already been ex vote for several days, so the papers fail to measure the price change as a stock goes from cum vote to ex vote.<sup>9</sup>

In contrast, the literature that studies stock prices when they go ex cash dividend understands that the relevant date is not the record date but the ex-dividend date. The two are never the same because of the time needed for stock trades to clear (with the difference varying with the settlement rules at the time). To cite one example, during the proxy contest DuPont announced a cash dividend with a record date of May 15 and an effective ex date of May 13. Thus, to measure what happens when DuPont's stock went ex dividend, that is, to measure the after-tax value of DuPont's dividend, one would measure the stock-price change from May 12 (when it was cum dividend) to May 13 (when it started to trade ex dividend). The change in the stock's price from the record date of May 15 to the next trading day of May 18 does not in any way reflect the value of the dividend. Research on cash dividends has been facilitated by the fact that stock exchanges set effective ex days with cash dividends.<sup>10</sup> Exchanges do not do this with voting rights. As Table 1 shows regarding DuPont, this can create uncertainty regarding when stocks go ex vote. We find such uncertainty with other stocks going ex vote as well. Therefore, because there is no explicit ex-vote date, an event window of more than one day is needed to capture the full value of a marginal vote. In our analyses, we use a 3-day window beginning two days before the record day (although we report daily returns within a larger window).

Even though voting is central in shaping how shareholders influence corporate policy and control agency costs, the literature to date has also paid little attention to understanding how investors learn of record dates and thus know whether any stock they purchase will have voting rights for the next shareholders' meeting. No study, to the best of our knowledge, has acknowledged that the NYSE sells nonpublic information, including voting record dates, to select investors—typically (as we

<sup>9</sup>Although Dodd and Warner (1983) focus their interpretation on the stock-price change following the voting record day, among the three papers they are the only one to report returns for the period before the record day when stocks are actually going ex vote. They report the cumulative returns for Days  $-4$  to  $0$  (where Day  $0$  is the voting record day), although not the returns for the individual days within that window. Their sampling period was July 1, 1962 to Jan. 31, 1978. From 1952 until 1968, financial markets in the United States operated under a  $T + 4$  rule. In 1968, markets switched to a  $T + 5$  rule. Approximately half of Dodd and Warner's 89 observations occurred under the first settlement regime and approximately half under the second regime. Thus, the stocks they were studying effectively went ex vote (or started going ex vote) not on Day  $+1$ , as they assume, but on either Day  $-4$  or Day  $-3$ , depending on the year. Moreover, they divide their sample by whether the record date precedes or follows the announcement of the proxy contest. They do not consider whether the record date precedes or follows the announcement of the record date itself, be it through the filing of a proxy or a stock exchange data subscription service (if such a service existed at the time).

<sup>10</sup>NYSE Rule 204. Further indication of the problems that can arise with uncertainty over when trades clear can be seen in the NYSE's special listing rules governing cash dividends that account for more than 25% of a firm's stock price. Nasdaq also establishes an explicit ex-dividend date soon after it is notified by a firm of the dividend record date. Such a notification must be given no later than ten calendar days prior to the record date. Nasdaq Listing Rule 5250(e)(6).

shall see) before the date occurs and before the public at large learns of the date through the filing of a proxy.

Only two papers, Young, Millar, and Glezen (1993) and Bethel, Hu, and Wang (2009), address the relationship between the proxy filing date, which is how the public at large learns of a voting record date, and the record date itself.<sup>11</sup> Both papers assert without empirical support that proxies are always filed after record dates. Our evidence shows that this is not the case. We analyze whether the timing of proxy filings is associated with changes in stock prices, trading volume, and voting outcomes.

Some commentators, also without offering any evidence, claim that events such as those that occurred at DuPont and at AmTrust, where management failed to report voting record dates in preliminary proxies even though the boards by this time had set the already-passed record dates, “happens all the time—record date playing” (“Carl Icahn Didn’t Buy Some Shares on Time” (quoting Steven Davidoff Solomon, a University of California, Berkeley law professor and former securities attorney), Bloomberg News Service, May 22, 2018).<sup>12</sup> We investigate whether this, in fact, is the case.

The only paper to document what happens to trading volume when stocks go ex vote is Christoffersen, Geczy, Musto, and Reed’s (2007) study of the use of borrowed stock to influence shareholder votes. They fail, however, to disaggregate votes and as a consequence find no change in aggregate stock trading when stocks go ex vote. This leads them to conclude that there is no market for votes in what they call the spot market. When we disaggregate votes, we find that with some types of votes there is an active market for those votes before the corresponding stocks go ex vote.

The working assumption in the literature is that trading volume increases only when the outcome of a controversial vote is revealed, which will in most cases occur at an annual meeting (Li, Maug, and Schwartz-Ziv (2022)). While this did happen with DuPont (untabulated), the data reported in Table 1 suggests that a surge in trading immediately after a stock has gone ex vote can also occur. This raises the interesting question why some shareholders sell as soon as they have voted but before the outcome of the vote has been determined.

In general, we have been struck by the widespread attention in the literature paid to one distribution to shareholders, namely cash dividends, compared with the near-total lack of attention paid to the other major distribution to shareholders, namely voting rights. Both can be important. For example, during 2015, DuPont paid cash dividends totaling \$1.72 per share, while the ex-vote date decline in the stock price (the price of a marginal vote for the shareholder’s meeting to decide on Trian’s proposals) was \$5.82.

Table 3 (which incorporates some of our findings) highlight similarities and differences between the distribution of cash dividends and the distribution of votes.

<sup>11</sup>An issue related to the timing of the filing of a proxy is the agenda for the meeting that is revealed in the proxy. Hirst and Robertson (2022), in a contemporaneous paper, address the agenda issue in the context of decisions by institutional investors regarding whether to recall stock that has been lent out to be able to vote that stock at a shareholders’ meeting. As part of this study, they confirm the relationship between the proxy filing date and the voting record date that we report in Panel A of Table 4.

<sup>12</sup>Bloomberg News Service, May 22, 2018, “Carl Icahn Didn’t Buy Some Shares on Time,” (quoting Steven Davidoff Solomon, a University of California, Berkeley law professor and former securities attorney).

TABLE 3  
Distribution of Cash Dividends Versus Distribution of Votes

Table 3 highlights key differences and similarities between the two distributions and notes the difference in academic attention. Cash dividends and voting rights are the two major distributions corporations make to their shareholders.

Distribution of Cash Dividends	Distribution of Votes
Over 100 papers focus on what happens when stocks go ex dividend	This is the first paper to focus on what happens when stocks go ex vote
All record dates are publicly available in advance	91% of record dates are publicly available only after the fact; timing varies with the type of proposal
All investors learn of a record date at same time	Some investors purchase record date information from the NYSE, usually before the date itself and before the public learns of the date
Stock exchanges set explicit ex dates	Stock exchanges do not set explicit record dates, which leads to uncertainty over when stocks go ex vote
Investors who sell without knowing record dates are price-protected; investors receive the same total proceeds whether they sell ex dividend or cum dividend	Investors who sell without knowing record dates are not price-protected; investors can lose money if they sell ex vote instead of cum vote
Many papers quantify ex-day stock price changes with dividends	This is the first paper to quantify ex-day stock price changes with votes
Many papers quantify what happens to trading volume when stocks go ex dividend	This is the first paper to quantify what happens to trading volume when stocks go ex vote
Cash dividends are integral to corporate valuation	Votes are integral to how shareholders control managers and limit agency costs
Covered largely by state law	Falls between federal and state law
Only 1/3 of firms distribute (pay) cash dividends	All firms distribute votes at least once a year

A partial explanation of the neglect in the literature of the distribution of votes might be that, although most firms do not pay cash dividends, any cash dividend is by definition a significant event. In contrast, while all firms distribute votes at least once a year, many of these distributions are nonsignificant in impact. This would be the case when proposals on which shareholders are able to vote will not impact corporate value; or, if they will impact corporate value, they will not be close votes; or, if they will both impact corporate value and be close, they will be decided solely by the votes of buy-and-hold shareholders with little or no influence exerted by activist investors. There will be times, however, as with DuPont and possibly AmTrust, when activist shareholders accumulate additional or marginal votes while a stock is still cum vote to garner additional influence over an important forthcoming vote. Our goal in this article is to determine how often this happens and what the effects are.

### III. Data

Public corporations must file public proxy statements with the Securities and Exchange Commission before holding shareholder votes. The final or definitive version of a proxy statement must identify the record date for determining who may vote on the proposals contained in the statement. Only those individuals who hold title to the stock at the close of trading on the record date may vote on the proposals in the proxy statement.

To investigate what happens when voting rights are distributed to shareholders, we began by collecting all proxy statements (preliminary and definitive) filed on the SEC's EDGAR electronic portal from 1996 to 2018. We then used a script search to identify proxy filings that contain all of the filing, record, and shareholder meeting

dates. Using this approach, we were able to identify 114,368 proxy record dates. In about 7% of the firm-years, a firm held more than one shareholder meeting; we include proxies from these special meetings in our database.

We merged this sample with the Center for Research in Security Prices (CRSP) database to obtain trading volume and stock prices for 101,141 proxy voting record dates involving 12,549 corporations. Some of our analyses focus on trading activity and stock prices as stocks go from cum vote to ex vote. We measure trading activity as the daily trading volume in a company's stock divided by the number of shares outstanding. We measure excess stock returns using the Fama–French 3-factor model, which is estimated from 360 to 60 days before a record date.

Finally, the NYSE, but not Nasdaq, requires that firms notify the Exchange at least 10 days before a voting record date. The Exchange then sells this information to subscribers (as part of its Corporate Actions Reports) but does not release the information to the public at large. We should note that Regulation FD, which prohibits the disclosure of material information to select individuals, applies only to public corporations and not to stock exchanges. We obtained from the NYSE the dates on which it informed its subscribers of the record dates for 11,576 of our shareholder meetings from 2010 to 2018.

## IV. Empirical Findings

In this section, we present the empirical findings using our full sample. We first investigate how and when investors are notified of voting record dates. We then examine what happens to trading volume and stock prices when stocks go from cum vote to ex vote.

### A. Notification of Voting Record Dates to Investors

One might think that all investors learn a voting record date at the same time and before that date occurs. Cash dividends, the other major distribution to shareholders, are announced to the public at large well before record dates. This gives investors the opportunity to trade to either secure or avoid cash dividends (perhaps for tax reasons). Similarly, preannouncement of the record date for a distribution of votes would give investors the opportunity to buy more shares if they want to gain additional influence over a forthcoming vote or the opportunity to sell shares because they lack the expertise needed to make informed decisions or simply because they have no interest in voting. Of course, shareholders always have the option of simply not voting, but evidence we present shortly suggests that they will often receive more money if they sell their stock cum vote as opposed to ex vote. Moreover, ensuring that all investors enjoy equal access to material information is a cornerstone of federal securities laws. Regulation Fair Disclosure (Reg FD), for example, prevents corporations from selectively disclosing material information to security analysts and large shareholders. Similarly, long-standing prohibitions on insider trading can be viewed broadly as efforts to prevent individuals from trading on information that others lack. In fact, neither the prerelease of a record date nor the release of that record date to all investors at the same time is typical with shareholder voting.

TABLE 4  
Relationship Between the Proxy, Record, and Exchange Notification Dates

Panel A of Table 4 reports whether the first proxy announcing a record date for determining which shareholders may vote in a forthcoming meeting was filed before or after the actual record date. "Proxy filed before record date" means that the proxy initially announcing a voting record date was filed at least four trading days before the record date. In these cases, investors who wanted to purchase stock and vote at the forthcoming meeting were able to do so knowingly. These proxies are the first public announcements of record dates. In Panel B, we break these data down by type of shareholder meeting. There are 114,368 observations for Panels A and B for a period running from 1996 to 2018. The findings reported in Panel C are restricted to firms listed on the NYSE and indicate the order of the proxy, record, and stock exchange notification dates. A stock exchange notification date is when the NYSE notifies subscribers to its data services of a record date. The six groups contain all possible permutations with the three dates. We have 11,576 observations for Panel C for a period running from 2010 to 2018.

*Panel A. All Observations*

Proxy filed before record date	9%
Proxy filed after record date	91%

*Panel B. Proxies Filed After Record Date*

Regular meeting	92%
Merger	92%
Special meeting	71%
Shareholder-initiated proposal	60%
Contested	55%

*Panel C. Order of Proxy, Record, and Exchange Notification Dates*

	Group 1 Exchange Record Proxy	Group 2 Exchange Proxy Record	Group 3 Record Proxy Exchange	Group 4 Record Exchange Proxy	Group 5 Proxy Record Exchange	Group 6 Proxy Exchange Record
Full sample	81.4%	5.0%	10.5%	1.3%	1.1%	<1%
Regular	82.6%	4.8%	10.1%	1.1%	<1%	<1%
Nonregular	48.8%	11.5%	21.9%	7.3%	5.7%	4.7%

## 1. Proxy Dates

Under federal securities law, a firm must file a definitive proxy before each shareholder vote and that proxy must identify the record date for determining which shareholders may vote on the proposals contained in the proxy. This is the first identification of the voting record date to a firm's shareholders and the public at large. To be sure, firms sometimes file preliminary proxy statements, but, as with DuPont and AmTrust, these typically do not identify the voting record date.

In Panel A of Table 4, we report that 91% of all proxies that initially identify a voting record date are filed after that date.<sup>13</sup> Thus, claims that definitive proxies are

<sup>13</sup>We use the filing date of the first proxy to report a given voting record date. In the vast majority of cases, this will occur in a definitive proxy, not a preliminary proxy. In those few cases, where a preliminary proxy reports a voting record date, we use that date in our analyses. For most of our sampling period, investors needed more than two days' notice before a record date to be assured that any stock they purchased would clear and could thus be voted in the forthcoming meeting. Notification 3 trading days before the record date would have been sufficient to achieve this if the notification came sufficiently early in the day. Throughout this article, we classify proxies filed at least 4 trading days before their record dates as having been filed before the record dates with all other proxies classified as having been filed after the record dates. We also adjust for the movement to a  $T + 2$  clearance for stock trades that began on Sept. 5, 2017. With these observations, we classify proxy statements made at least 3 trading days before their record dates as being filed before their record dates, with all other proxies being classified as having been filed after their record dates. We apply similar rules when classifying NYSE notifications of record dates to subscribers to its data services.

always filed after record dates are incorrect (Young et al. 1993, Bethel et al. 2009). The question becomes whether the timing of proxy filings is random or strategic and whether that timing is correlated with outcomes of interest, such as stock-price changes when stocks go ex vote or whether proposals ultimately pass.

Firms might simply randomly decide whether to file (definitive) proxy statements before or after record dates. If this were the case, approximately half of all proxies would be filed before their record dates and half would be filed after their record dates. Given the lopsided data reported in Panel A of Table 4, we can easily reject this randomness hypothesis.

Firms might also put little thought into the initial choice between filing a proxy before or after a record date, perhaps reflecting the decision of a low-level employee, but once that choice is made a firm stays with it over time. To address this path-dependency argument, we divide our firms that issue at least two proxy statements into three categories: firms that always file before record dates; firms that always file after record dates; and firms that have done both. We find that 42% of these firms make both early and late filings. Less than 1% of the firms always notify shareholders of record dates before they occur (untabulated results).

To obtain the results reported in Panel B and Panel C of Table 4, we divide our sample into regular filings and nonregular filings. Nonregular filings include shareholder votes on mergers, special meetings, proxy contests, and shareholder-initiated (as opposed to management-initiated) proposals. Both the DuPont and AmTrust filings discussed earlier were nonregular filings. Almost 6% of all proxy filings involve nonregular votes; 35% of our firms made at least one nonregular filing. Because nonregular votes can offer valuable insights, we use this division throughout the remainder of the article.

Some readers have suggested that notification of a voting record date through the filing of a proxy might be superfluous if investors can accurately predict future record dates from past record dates. For almost 20% of our firm-year observations, there is more than one shareholder vote in a given year. In these cases, which tend to address important issues at special shareholder meetings, there effectively are no past record dates available on the basis of which to predict a future record date. For the remainder of our observations, which are annual meetings, seldom does a record date occur exactly 1 year after the previous record date. When we consider annual meetings with only regular votes, the average (median) number of days between the voting record date from one year to the next is 23 (3). When we consider annual meetings with nonregular votes, the average (median) statistic is 89 (57) days. Thus, it does not appear that investors can accurately predict future record dates from past record dates, particularly when this information is most valuable, that is, when it concerns nonregular votes.

Given that nonregular votes are typically more contentious than regular votes, if managers are acting strategically when revealing the voting record dates they have set, we would expect to observe greater variation in the timing of the filings of nonregular proxies than with the timing of regular filings. The evidence supports this line of reasoning. Management is significantly more likely to file a nonregular proxy before a record date than similarly to file a regular proxy. This can be seen in the summary statistics (Panel B of Table 4); a simple linear probability model (column 1 in Table 5); when we control for industry and year fixed effects (column 2

TABLE 5  
Are Proxies Filed After Record Dates?

Table 5 shows the results of linear probability regressions of the timing of notifications of voting record dates through filings of definitive proxies. A proxy filed after a record date takes the value of 1, if the initial proxy identifying the voting record date was not filed at least four trading days before that date, which would enable investors to knowingly purchase stock that could vote at the forthcoming shareholders' meeting. Nonregular filings are proxy contests, special meetings, mergers, and shareholder-initiated proposals. All other filings are Regular Filings. Sales is the natural logarithm of annual sales. Amihud Illiquidity is the Amihud (2002) illiquidity measure. NYSE, AMEX, and NASDAQ indicate the exchange on which a stock is listed. TOBINS\_Q is the ratio of the market value to the book value of assets. Data are for 1996–2018. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are clustered at the firm level and are reported in parentheses.

	Proxy Filed After Record Date		
	1	2	3
NONREGULAR_FILING	-0.1793*** (0.0069)	-0.1741*** (0.0069)	-0.1709*** (0.0070)
SALES (log)			0.0077*** (0.0010)
AMIHUDD_ILLIQUIDITY			-0.0156*** (0.0026)
NYSE			-0.0019 (0.0421)
AMEX			-0.0109 (0.0424)
NASDAQ			-0.0025 (0.0419)
TOBINS_Q			-0.0026*** (0.0005)
Constant	0.9244*** (0.0014)	0.8705*** (0.0284)	0.8485*** (0.0524)
Year FE	No	Yes	Yes
Industry FE (3-digit SIC)	No	Yes	Yes
<i>N</i>	86,127	85,704	81,862
<i>R</i> <sup>2</sup>	0.020	0.035	0.042

in Table 5); and when we control for a variety of other factors (column 3 in Table 5). Across all three regressions reported in Table 5, the likelihood that a proxy is filed late (that is, after its record date) falls by approximately 17 percentage points when the issue to be voted on is nonregular.

We next explore whether the timing of a filing is correlated with how a vote eventually turns out. Here we use the ISS Voting Analytics database, which covers the outcomes of shareholder voting for Russell 3000 firms from 2003 to 2016. ISS reports the sponsor of each ballot proposal; whether shareholders approved or rejected the proposal; and the percentage for, against, and abstaining votes. We have this information for 258,585 individual votes in our sample involving 5,582 firms. (Most proxies involve multiple items; hence the large number of individual votes.)

We define a proposal as having a close outcome if the difference between votes in favor and the passing threshold is within 10% of shares outstanding (a “close vote”). Panel A of Table 6 presents summary statistics for these close votes. We can see that 2.3% of all votes are close, with the incidence being higher for nonregular votes. For example, 11.5% of all proxy contest votes turn out to be close. We also see that proxies filed early are twice as likely to be associated with close votes than are those filed late (5.7% vs. 2.1%).

The relationship between the timing of a filing and whether a proposal fails or passes depends on who sponsors the proposal. As can be seen at the bottom of



TABLE 6  
Relationship Between Proxy Dates, Record Dates, and Voting Outcomes

Panel A of Table 6 shows the summary statistics for voting outcomes and the filing of proxies announcing record dates for votes. A vote is a "close vote" when the difference between votes cast in favor of a proposal and the passing threshold is within 10% of total shares outstanding. Data on voting outcomes are obtained from the ISS Voting Analytics database. In Panel B, we report the results of linear probability regressions where the dependent variable takes the value of 1 if the shareholder vote turns out to be close and 0 otherwise. In Panel C, we report the results of linear probability regressions where the dependent variable takes the value of 1 if a shareholder-initiated proposal is defeated and 0 otherwise. The independent variables in the regressions are indicators of nonregular filings and proxies filed before record dates. Nonregular filings are proxy contests, special meetings, mergers, and shareholder-initiated proposals. Proxies filed before record dates were filed at least four trading days before those dates, thereby enabling investors who wanted to purchase additional stock and also vote at the forthcoming shareholders' meeting are able to do so knowingly. Data are for 2003–2016. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are clustered at the firm level and are reported in parentheses. <sup>a</sup>Nonregular meetings only.

*Panel A. Summary Statistics*

Meeting Type	Close Vote (%)	
Full sample	2.3	
Annual	2.2	
Annual/Special	4.5	
Special	9.6	
Proxy contest	11.5	
Filing Status	Close Vote (%)	
Proxy filed before record date	5.7	
Proxy filed after record date	2.1	
Proposal Fails to Pass <sup>a</sup>		
Sponsor of Proposal		
	Management (%)	Shareholder (%)
Proxy filed before record date	3.3	45.5
Proxy filed after record date	2.8	27.4

*Panel B. Close Votes: Regression Results*

	Dependent Variable: Close Vote			
	1	2	3	4
Nonregular meetings	0.0583*** (0.0066)		0.0468*** (0.0064)	
Filed before record date		0.0387*** (0.0038)	0.0339*** (0.0037)	0.0327*** (0.0007)
Constant	0.0223*** (0.0007)	0.0211*** (0.0007)	0.0206*** (0.0007)	0.0203*** (0.0007)
Meeting fixed effects	No	No	No	Yes
R <sup>2</sup>	0.002	0.004	0.005	0.007
N	258,345	258,345	258,345	258,345

*Panel C. Voting Outcomes: Regression Results*

	Dependent Variable: Shareholder-Initiated Proposal Defeated		
	1	2	3
Nonregular meetings	-0.4022*** (0.0450)	-0.4453*** (0.0453)	
Filed before record date		0.0663** (0.0289)	0.0556** (0.0259)
Constant	0.8037*** (0.0109)	0.8002*** (0.0113)	0.8005*** (0.0113)
Meeting fixed effects	No	No	Yes
R <sup>2</sup>	0.071	0.073	0.081
N	6,482	6,482	6,482

Panel A of Table 6, there is only a modest relationship with management proposals. With proposals made by shareholders (presumably by shareholders opposed to management), the difference is pronounced. When a proxy is filed after its record

date, 27.4% of dissidents' proposals fail. But when the proxy is filed before the record date, fully 45.5% of the dissidents' proposals fail.

These summary statistics are confirmed by regression analyses. Column 1 in Panel B of Table 6, we report that the probability that a close vote occurs is 5.83 percentage points higher with a nonregular meeting than with a regular meeting. The results reported in columns 2–4 confirm that managers are significantly more likely to file proxies before record dates with votes that turn out to be close. Panel C results are limited to shareholder proposals (dissident proposals) as opposed to proposals made by management. In columns 2 and 3, we show that these proposals are more likely to fail when a proxy statement announcing a voting record date is filed before that date actually occurs. A plausible explanation is that management might hope to garner greater retail participation in close votes by sending out proxies early as part of a “get out the vote” campaign.

## 2. Exchange Subscription Services

Recall that the NYSE, but not Nasdaq, requires that listed firms notify the Exchange at least 10 days before a voting record date. Three dates are therefore relevant for notification purposes: a voting record date itself, the associated proxy filing date (which is the first announcement of the record day to the public at large), and the date the NYSE informs subscribers of the record date.<sup>14</sup> The six possible permutations of these three dates are reported in Panel C of Table 4. It can be seen that all possible permutations are represented. This suggests that firms have the legal freedom (the right) to announce record dates either before or after they occur, and stock exchanges have the right to sell this information to subscribers even when the record dates are not yet known by the public at large. We note as well that the modal observation is Group 1: The NYSE notifies its subscribers before record dates, and then after record dates firms notify the public by filing proxies. This is what happened at DuPont, and it happens 81.4% of the time.

To obtain the results reported in Table 7, we conduct two investigations into the NYSE's notification of the record dates to its subscribers. The results pertaining to Groups 3, 4, and 5 reported in Panel C of Table 4 are noteworthy in that the NYSE informs subscribers of record dates after they have occurred. The NYSE is clear that

<sup>14</sup>For all firms, no matter where listed, a fourth notification date is potentially relevant. SEC Proxy Rule 14a-13 requires that all public firms notify brokers at least 20 business days prior to any record date including for shareholder voting. For special meetings (but not for annual meetings), if 20 days' notice is not practical, notice may be given on a shorter basis (no time is specified in the regulations), but it still must be given before record dates. The SEC makes this request to enable firms to obtain rough estimates of the number of paper proxy statements they must print for forthcoming meetings. Firms make second requests several days after record dates to obtain exact counts. These requests go to the back offices of broker-dealers, which receive over 5,000 such requests annually. Many firms use Broadridge for this service. We approached Broadridge to obtain this information and were informed that they do not retain records, so we are unable to investigate whether broker-dealer notifications are associated with either stock prices or volume changes. We did, however, investigate what happened 20 business days before the record dates for both DuPont and AmTrust and found no abnormal activity. In both cases, the 2-day abnormal stock returns were nonsignificant and below 0.20%. Finally, we have no indication that broker-dealers release this information. If they do release this information, they would have to ensure that they are not violating prohibitions on insider trading. Broker-dealers are covered by all of the antifraud provisions of federal securities laws.

TABLE 7  
NYSE Notification of Voting Record Dates

Table 7 shows the results of linear probability regressions of NYSE notifications of voting record dates to subscribers to its data services. For columns 1–3, the dependent variable takes the value of 1 if a NYSE notification comes too late for subscribers to knowingly purchase stock cum vote. This enables us to investigate whether the NYSE notification of the voting record date is random or strategic. For columns 4–6, the dependent variable takes the value of 1 if the NYSE notification to subscribers to its data services occurs before the proxy filing date, which is how the public at large learns of the record date. This enables us to investigate whether the NYSE's notification creates an "unlevel playing field." Nonregular filings are proxy contests, special meetings, mergers, and shareholder-initiated proposals. All other filings are Regular Filings. Sales is the natural logarithm of annual sales. Amihud Illiquidity is the Amihud (2002) illiquidity measure. TOBINS\_Q is the ratio of the market value to the book value of assets. Data are for 1996–2018. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are clustered at the firm level and are reported in parentheses.

	NYSE Notification After Record Date			NYSE Notification Before Proxy Date		
	1	2	3	4	5	6
NONREGULAR_FILING	0.1083*** (0.0242)	0.1489*** (0.0238)	0.1450*** (0.0236)	-0.4037*** (0.0298)	-0.4469*** (0.0300)	-0.4438*** (0.0299)
SALES (log)			-0.0054** (0.0023)			-0.0011 (0.0021)
AMIHUDD_ILLIQUIDITY			0.0321** (0.0142)			0.0093*** (0.0027)
TOBINS_Q			0.0013 (0.0019)			-0.0700*** (0.0182)
Constant	0.1131*** (0.0034)	0.4460*** (0.0290)	0.4789*** (0.0345)	0.8608*** (0.0039)	0.4935*** (0.0326)	0.4339*** (0.0443)
Year FE	No	Yes	Yes	No	Yes	Yes
Industry FE (3-digit SIC)	No	Yes	Yes	No	Yes	Yes
N	8,989	8,989	8,945	8,989	8,989	8,945
R <sup>2</sup>	0.003	0.126	0.129	0.038	0.146	0.154

it will not waive the 10-day notification requirement for any reason.<sup>15</sup> It would thus appear that in these cases, which represent 13% of all observations, Exchange officials knew of the record dates in advance but for some reason delayed releasing the information until after those dates had passed. Such delays could be either intentional or merely clerical errors. If late notifications by the NYSE are clerical errors, they should be uncorrelated with filing types. The regression results reported in columns 1–3 of Table 7 indicate that the likelihood that Exchange officials delay notification to their subscribers until after record dates pass increases by approximately 10–14 percentage points when the issue to be voted on is nonregular. This evidence is inconsistent with random delays of reporting by Exchange officials.

Notification by the NYSE of record dates could also create an "unlevel playing field" in that some investors, namely those who subscribe to the Exchange's service, have access to potentially valuable information, namely forthcoming voting record

<sup>15</sup>"Because the Exchange has no authority to waive its record date notification requirement . . . strict compliance is essential to avoid the need to reset record dates or dates for shareholder meetings. . . ." [https://www.nyse.com/publicdocs/nyse/regulation/nyse/NYSE\\_2021\\_Annual\\_Guidance\\_Letter.pdf](https://www.nyse.com/publicdocs/nyse/regulation/nyse/NYSE_2021_Annual_Guidance_Letter.pdf). One example of how seriously the Exchange takes this notification requirement is that the Cato Corporation informed the Exchange on Feb. 22, 2013 that the voting record date for its annual meeting would be Mar. 25 when it meant to report Mar. 26 as the record date. The Exchange called Cato on this discrepancy. Cato had to file a 8-K, which it did on May 13, explaining that it was a clerical error, that this was its first filing with an error, and that the company was in compliance with all other exchange listing rules. Cato did not file a preliminary proxy, and its definitive proxy, which included the (correct) record date of Mar. 26, was filed on Apr. 11.

dates, that the investing public does not have because proxies have not yet been filed. This would be the case with Groups 1 and 2 from Panel C of Table 4, or about 86% of all observations. DuPont is an example. In contrast to the results obtained with regressions 1–3 of Table 7, regressions 4–6 also reflect dates when management files proxy statements and thus notifies the public of voting record dates. These regressions suggest that the informational advantage from subscribing to the NYSE service might be significantly reduced with nonregular filings.

## B. Trading Volume Changes

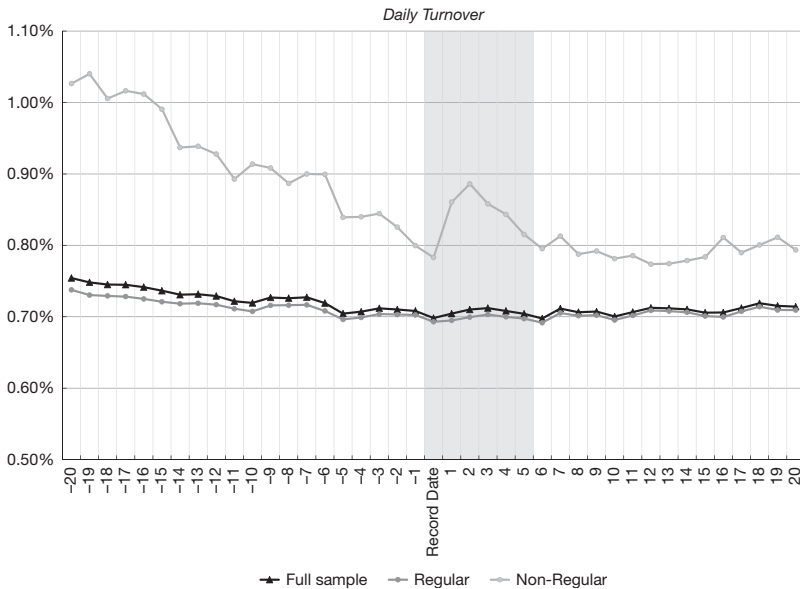
We now examine stock trading volume as an element in our investigations of how investors react to the distribution of voting rights. Figure 1 plots the daily trading volume in the 40 days surrounding voting record dates. Three broad empirical regularities emerge, all of which are confirmed by untabulated regressions. First, Figure 1 again illustrates the importance of disaggregating shareholder votes. For regular filings, there is little change in stock turnover in the 40 days surrounding a record date. For nonregular filings, the situation differs in several respects. Christoffersen et al. (2007), which to the best of our knowledge is the only published paper that documents what happens to stock trading volume when stocks go ex vote, stands as an example illustrating why it is important to disaggregate the distribution of shareholder votes. In their study of investors who borrow stock to influence shareholder votes, the authors investigate whether there is an active market for votes in the spot market. They report only the equivalent of the middle line of Figure 1 (also Figure 1 in their paper), which is the trading volume for the full sample of observations around voting record dates. As a result of this focus, they conclude that there is no market for votes in the spot market. Yet disaggregation clearly shows an active market for certain types of votes.

The second empirical regularity indicated in Figure 1 is that with nonregular votes trading volume is generally higher when a stock is cum vote than when it is ex vote. The daily turnover rate is 0.94% from  $T - 20$  to  $T - 5$  compared with 0.79% from  $T + 6$  to  $T + 20$  (where  $T = 0$  is the record day). This difference is significant at the 1% level and likely reflects investors' accumulation of stock to gain additional votes for forthcoming meetings. We expect investors to be more active with nonregular votes, which can be contentious and close, than with regular votes, which often are neither contentious nor close. Figure 1 is consistent with this reasoning.

The third empirical regularity indicated in Figure 1 is that with nonregular votes once a stock has gone ex vote trading volume surges. Daily turnover increases from 0.80% one day prior to a record date to almost 0.90% one day after that record date (the increase is highly significant). To investigate whether this surge is driven by nonrecord-date information reported in proxies, as opposed to the passing of record dates themselves, in untabulated tests we examine only those observations where the first nonregular proxy filing occurs at least 6 days after its record date. We observe no significant changes in Figure 1, suggesting that nonrecord-date information in proxies does not drive surges in trading once stocks go ex vote. In contrast

FIGURE 1  
Stock Trading Volume Around Voting Record Dates

Stock trading volume is the daily volume divided by the number of shares outstanding (in percentage terms). Nonregular filings are proxy contests, special meetings, mergers, and shareholder-initiated proposals. All other filings are Regular Filings. The shaded area in Figure 1 denotes a possible postrecord-date surge in trading volume. The sample covers 101,141 record dates from 1996 to 2018. Data are obtained from CRSP.



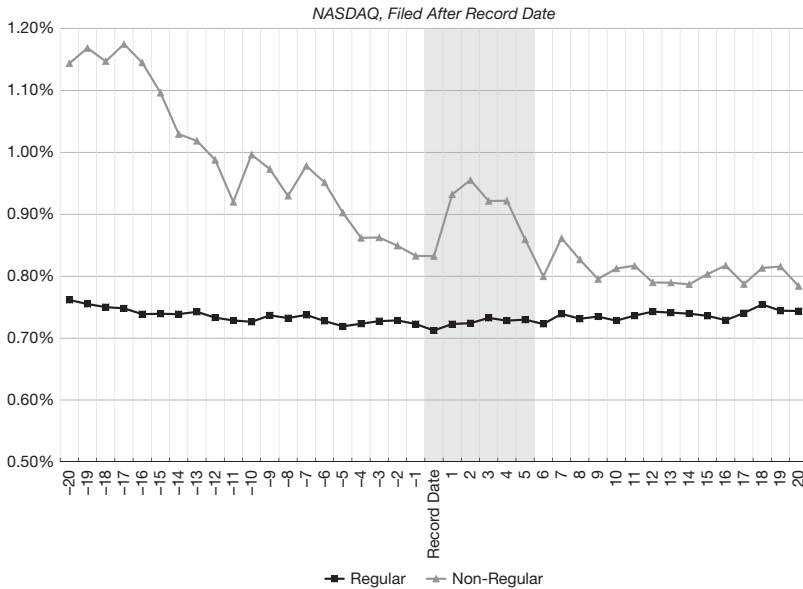
to what occurs with voting record dates, this information has usually been revealed weeks earlier, often in preliminary proxies.

The post-ex-day day-trading surge we observe suggests that some investors are unwilling to hold their shares until the shareholders' meeting when the voting outcome will be determined and any impact of the vote will be fully impounded into the stock price. It should be noted, however, that only a minority of those who purchase a stock cum vote sell it as soon as it goes ex vote. If most people who purchased stock cum vote sold it as soon as it went ex vote, then the ex-vote trading volume would be as high as the cum-vote volume. This the data do not show. In untabulated regressions, we find that the ex-record-date volume surge (days  $T + 1$  to  $T + 5$ ) is positively related to the probability that a close vote occurs and negatively related to whether a dissident's proposal passes (both findings are significant at the 1% level).

Figure 2 is limited to Nasdaq firms in cases where a proxy is filed after the corresponding record date. As explained earlier, with these observations there are no formal prenotifications of the record dates either to the public, via proxies, or to select investors, via subscription services. Nevertheless, with non-regular votes, there is a higher level of trading activity before record dates as well as a surge thereafter. These regularities suggest that some investors learn of voting record dates for some votes through as-yet-unidentified means and trade accordingly.

FIGURE 2  
Stock Trading Volume Around Voting Record Dates for Nasdaq Firms When  
Proxies Were Filed After Record Dates

In Figure 2, the phrase “Filed after record date” means that a proxy initially announcing a record date was filed fewer than 4 trading days before the record date, thereby preventing investors who wanted to purchase stock and vote at the forthcoming shareholders’ meeting from being able to do so knowingly. Stock trading volume is the daily volume divided by the number of shares outstanding (in percentage terms). Nonregular filings are proxy contests, special meetings, mergers, and shareholder-initiated proposals. Nasdaq does not require firms to notify it in advance of voting record dates, so with these observations there are no formal announcements of record dates before they occur. The shaded area denotes a possible postrecord-date surge in trading volume. The sample covers 54,682 record dates from 1996 to 2018. Data are obtained from CRSP.



### C. Stock Price Changes

We now investigate how stock prices react when voting rights are distributed to shareholders. When this occurs, that is, when stocks go from cum vote to ex vote, the only thing that changes is that a stock purchaser no longer receives the right to vote that stock at the forthcoming shareholders’ meeting. Cash flows remain unchanged. Consequently, the difference between a stock’s price cum vote and its price ex vote is the value of an additional or marginal vote at the next shareholders’ meeting. This ex-day approach was used by Dolley (1934) to value rights offerings and by Elton and Gruber (1970) (and many others) to calculate the after-tax value of cash dividends.

In Table 8, we report the ex-day stock-price change for our full sample of over 100,000 observations. The results reported in column 1 in Panel B indicate that, over the 3-day window from Day  $-2$  to Day 0, where Day 0 is the record day (“ex-vote window”), the average (median) change for the entire sample is a decline of nine (twelve) basis points, both of which are significant at the 1% level. We use a 3-day window to capture the full effect of what happens to prices when stocks go ex vote because of uncertainties over when stock trades clear in the absence of an explicit ex day. A multiday approach is suggested both by what happened at DuPont (Table 1) and by the daily data reported in Table 8.

TABLE 8  
Returns as Stocks Go Ex Vote

Panel A of Table 8 shows the abnormal stock returns from Days -5 to +2 where Day 0 is the record date for a distribution to shareholders of the right to vote in a forthcoming meeting. Returns are calculated using a Fama-French 3-factor model, which is estimated from 360 to 60 days before the record dates. In Panel B, we report the cumulative returns for the ex-vote window of Days -2 to 0. The difference in calculations for Panel B reflects the difference between regular and nonregular filings. Nonregular filings are proxy contests, special meetings, mergers, and shareholder-initiated proposals. All other filings are Regular Filings. Data are for 1996-2018. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are reported in parentheses.

	All Filings 1	Regular Filings 2	Nonregular Filings 3
<i>Panel A. Daily Stock Returns</i>			
Day = -5	-0.0002 (0.0001)	-0.0002 (0.0001)	-0.0004 (0.0006)
Day = -4	-0.0003*** (0.0001)	-0.0003*** (0.0001)	-0.0011* (0.0006)
Day = -3	-0.0001 (0.0001)	-0.0001 (0.0001)	-0.0005 (0.0006)
Day = -2	-0.0002 (0.0001)	-0.0001 (0.0001)	-0.0010** (0.0006)
Day = -1	-0.0003*** (0.0001)	-0.0003*** (0.0001)	-0.0014** (0.0006)
Day = 0 (Record Date)	-0.0002 (0.0001)	-0.0001 (0.0001)	-0.0010* (0.0006)
Day = +1	0.0002 (0.0001)	0.0001 (0.0001)	0.0014** (0.0007)
Day = +2	-0.0003** (0.0001)	-0.0004*** (0.0001)	0.0006 (0.0006)
<i>Panel B. Cumulative Stock Returns from Days -2 to 0 (Ex-Vote Window)</i>			
Mean	-0.0009*** (0.0002)	-0.0008*** (0.0002)	-0.0036*** (0.0010)
Difference		-0.0028*** (0.0011)	
Median	-0.0012*** (0.0001)	-0.0010*** (0.0001)	-0.0035*** (0.0003)
Difference		-0.0025*** (0.0004)	
Percent negative	51%	50%	57%
Number of record dates	101,141	95,460	5,681 (5.6% of filings)
Number of firms	12,549	12,211	4,341 (34.6% of firms)

## 1. Nonregular Votes

There are pronounced differences in the stock-price reaction between the distribution of regular votes and the distribution of nonregular votes (just as with trading volume). For nonregular votes, the stock-price decline, or the price of a marginal vote, is roughly four times greater than is the case with regular filings, on average 36 (median 35) basis points versus 8 (median 10) basis points (Panel B of Table 8). All of these differences are statistically significant. In Table 9, we break out the nonregular proxy filings into their four (exhaustive but not mutually exclusive) categories of mergers, proxy contests, special meetings, and shareholder-initiated proposals. All four categories are associated with significant stock-price declines that are substantially greater than the changes that occur involving either ex days in general or regular filings. The stock-price decline is the largest for shareholder-initiated proposals, with a drop of 66 basis points. Recall that it is in connection with these votes that the early filing of a proxy is

TABLE 9  
Returns as Stocks Go Ex Vote With Nonregular Filings

Nonregular filings are proxy contests, special meetings, mergers, and shareholder-initiated proposals. Some nonregular filings shown in Table 9 involve more than one of these categories, so the reported categories are not mutually exclusive. Stock returns are average cumulative abnormal stock returns in basis points from Days  $-2$  to  $0$  where Day 0 is the record day for determining which shareholders may vote (the ex-vote window). The returns are calculated using the Fama–French 3-factor model, which is estimated from 360 to 60 days before the record dates. All stock returns in this table are significant at the 1% level. Data are for 1996–2018.

	Stock Returns	% Negative	Observations
Mergers	–29	59	3,142
Proxy contests	–30	55	962
Special meetings	–56	54	1,325
Shareholder-initiated proposals	–66	56	425

TABLE 10  
Closeness of Vote

Table 10 shows the results of linear probability regressions where the dependent variable takes the value of 1 if a shareholder vote turns out to be close and 0 otherwise. We classify votes as “close votes” when the difference between votes cast in favor of a proposition and the passing threshold is within 10% of total shares outstanding. The independent variable Ex-Vote Stock-Price Change is cumulative abnormal stock returns from Days  $-2$  to  $0$ , where Day 0 is the record day for determining which shareholders may vote (the ex-vote window). The returns are calculated using the Fama–French 3-factor model, which is estimated from 360 to 60 days before the record dates. Data indicating the closeness of a vote are obtained from the ISS Voting Analytics database. Most proxy statements involve multiple items for shareholder voting. Data are for 2003–2016. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are clustered at the firm level and are reported in parentheses.

	Dependent Variable: Close Vote	
	1	2
Ex vote stock price change	–0.0288** (0.0115)	–0.0277** (0.0112)
Constant	0.0234*** (0.0007)	0.0221*** (0.0007)
Meeting type fixed effects	No	Yes
$R^2$	0.00%	0.50%
$N$	258,585	258,585

associated with a marked decline in the probability that a proposal passes. In contrast, votes on merger proposals are often noncontentious. Consistent with this reasoning, the stock-price decline is the smallest for this category.

## 2. Close Votes

In Table 10, we report results pertaining to the relationship between a close vote (defined as one that comes within 10% of shares outstanding) and the price of the marginal vote (the abnormal stock-price change over the 3-day ex-vote window). A larger drop in the stock price, which means a higher price for a marginal vote, is associated with a greater likelihood that the vote turns out to be close.

## 3. Notification

In Table 11, we report results that indicate whether an ex-day stock-price change varies with whether the proxy announcing the voting record date is filed before or after the record date. We can see that the average stock-price reaction is more pronounced when the proxy announcing the record date was filed sufficiently ahead of that date to enable investors to knowingly buy a stock that is cum vote,



TABLE 11  
Stock Returns and Notification of Voting Record Dates Through Proxy Filings

Table 11 reports average abnormal stock returns from Days  $-2$  to  $0$  where Day  $0$  is the record date for a distribution to shareholders of the right to vote in a forthcoming meeting (the ex-vote window). The designation "Proxy Filed Before Record Date" means that the proxy initially announcing the record date was filed at least four trading days before the record date, thereby enabling investors who wanted to purchase additional stock and vote at the forthcoming shareholders' meeting could do so knowingly. All other filings are considered to have occurred after the record date. Stock returns are calculated using the Fama-French 3-factor model, which is estimated from 360 to 60 days before the record dates. Nonregular filings are proxy contests, special meetings, mergers, and shareholder-initiated proposals. All other filings are Regular Filings. Date are for 1996–2018. \*, \*\*, and \*\*\* indicate statistical significance at the 10%, 5%, and 1% levels, respectively. Standard errors are reported in parentheses. Numbers of observations are reported directly below standard errors. In column 3, we report the differences between the first two columns as well as the standard errors of a one-sided  $t$ -test, which shows whether the values reported in column 1 are smaller than the values reported in column 2.

	Proxy Filed Before Record Date	Proxy Filed After Record Date	One-Sided Test on Difference in Means
	1	2	3
<i>Full sample</i>			
Regular	–0.0013 (0.0009) 6,999	–0.0007*** (0.0002) 88,461	–0.0006 (0.0009)
Nonregular	–0.0066*** (0.0023) 1,005	–0.0029*** (0.0009) 4,676	–0.0037* (0.0025)
<i>Nasdaq</i>			
Regular	–0.0019* (0.0012) 4,423	–0.0010*** (0.0003) 51,751	–0.0009 (0.0012)
Nonregular	–0.0090*** (0.0033) 606	–0.0033** (0.0013)	–0.0057* (0.0036)

especially with nonregular votes. The difference, however, is at best only marginally significant.

The observations of stock prices of Nasdaq firms reported at the bottom of Table 11, where proxies are filed after record dates are interesting because (as explained earlier) in this case there is no formal notification to any investor. Nevertheless, as is the case with trading volume, we still observe a statistically significant stock-price decline after a stock goes ex vote, with respect to both regular votes (10 basis points) and nonregular votes (33 basis points).

## V. Implications of Empirical Findings

Although the existing literature has paid considerable attention to shareholder voting, it has largely ignored an integral part of this process, the distribution of votes to shareholders. Our empirical findings show that, far from being perfunctory mechanical events, distributions of votes to shareholders carry considerable significance. In this section, we discuss some of the implications of our empirical findings and identify several promising topics for future investigation.

### A. The Dynamics of Corporate Voting

Our findings offer new insights into the underlying dynamics of corporate voting. One view of corporate voting is that buy-and-hold shareholders decide outcomes (Jensen and Ruback (1983)). Given insiders' stock ownership plus the increasing volumes of stock being voted by the largest institutional investors,

in particular BlackRock, Vanguard, and State Street, this hypothesis is reasonable. If corporate votes were decided solely by buy-and-hold shareholders, then a distribution of votes would be a mechanical event with little significance (other than that it has occurred and shareholders can vote as a consequence). The timing of notifications of voting record dates would not matter because the pivotal shareholders would own the same amount of stock both before and after a stock goes ex vote. There would be no changes in prices or volume when a stock goes ex vote.<sup>16</sup>

Although some votes may be decided solely by buy-and-hold shareholders, our evidence shows that many important votes are not decided in this manner. The timing of notifications of the record dates for many votes is correlated with differences in outcomes (Tables 6 and 11). Moreover, both trading volume and stock prices often change as stocks go ex vote (Tables 8 and 9 and Figures 1 and 2). All of this suggests the efforts of activist investors seeking to influence a forthcoming vote.

Several studies, indeed, model activist shareholders who disagree over corporate policies and accumulate stock before it goes ex vote to gain additional influence over a forthcoming vote; that is, they buy additional votes (e.g., Kandel and Pearson (1995), Hong and Stein (2007), Levit, Malenko, and Maug (2021), (2022)). Our findings generally support these studies. We find that some investors are willing to pay more for stocks that are cum vote, presumably so they can exercise additional influence over an upcoming vote (Table 8). Stock prices decline when a stock goes ex vote because demand is lower as it lacks a vote for the forthcoming meeting where the policy will be decided. If there were no disagreements among shareholders or if buy-and-hold shareholders alone decided votes, there would be no decline in stock prices when stocks go ex vote. An additional vote would sell for nothing because it would have no impact. Our findings reject this proposition.

There are other aspects of existing studies, however, that are not supported by our findings. Levit et al. (2021), (2022) model activist shareholders who disagree over corporate policies and buy stock while it is still cum vote to influence a forthcoming vote. The authors assume that all investors know that stock they are buying or selling is cum vote, but this is true in only 9% of the cases (Table 4). Our evidence therefore suggests that people often buy and sell stock without realizing that it has gone ex vote. The impact of the asymmetric knowledge in these trades warrants future study.<sup>17</sup>

Li et al. (2022) present evidence that, with close votes, stock trading volume often surges when the outcome of a vote is announced at a shareholders' meeting.

<sup>16</sup>To illustrate this point, assume that a firm has three buy-and-hold shareholders each of whom owns 25.1% of the stock; the remainder of the stock is held diffusely. Two of these three large shareholders will decide the outcome of the vote. Under this scenario, there would be no change in price or trading volume as a stock goes ex vote.

<sup>17</sup>Many papers extend Kyle (1985) by modeling trading between sophisticated and unsophisticated or retail investors. It has been challenging to identify situations where this occurs on a systematic basis. Stock trading that occurs when some investors, presumably sophisticated investors who subscribe to the NYSE's service, know of a voting record date while other investors, presumably retail investors, do not know the date seems a fruitful avenue for further analysis.

They interpret this finding to mean that institutional shareholders on the losing side sell only after the outcome of the vote is known. We find that with some controversial votes there is also a surge in selling immediately after a stock goes ex vote (Table 1 and Figures 1 and 2). Such a surge, however, cannot be explained by losing shareholders' reducing their holdings simply because the outcome of a vote has yet to be determined.<sup>18</sup> Furthermore, if selling shareholders knew they would lose a vote and that corporate value would decline as a result, they should have sold their stock before it went ex vote to take advantage of the higher cum-vote price (i.e., they should have sold before the typical decline in price that occurs when a stock goes ex vote). It seems more plausible that these shareholders voted for an outcome that they believed would reduce the firm's stock price and then sold as soon as the stock went ex vote to avoid a possible decline in the price when the outcome is announced at the annual meeting. This suggestion could describe managers who are voting to preserve their jobs or institutional investors who are voting to curry favor with management. More broadly, the ex-day surge in trading raises the possibility that some shareholders are voting for private gains as opposed to increasing corporate value. This warrants future study.

Lastly, our findings identify heterogeneity in the dynamics of corporate voting, which highlights the importance of disaggregating shareholder votes. Some votes are potentially both important and likely to be close; other votes will be neither. With some votes that are important and close, we find significant changes as stocks go ex vote. With other votes that are likewise important and close, we do not observe these changes. This heterogeneity suggests that shareholder votes reflect a range of underlying dynamics. It is possible, for example, that some important votes are decided solely by buy-and-hold shareholders, while other votes are decided solely by activist investors and still other votes are decided by informal coalitions of buy-and-hold shareholders and activist investors. It appears that DuPont and perhaps AmTrust fall into the last category. We believe that ex-day changes, or the lack thereof, can be used by researchers to separate votes into categories with distinct underlying dynamics.

## B. Notification of the Voting Record Date

Some commentators speculate that notification of voting record dates to investors is unimportant either because shareholder voting is unimportant or because all important votes are decided by buy-and-hold shareholders. A large body of literature since Manne (1962) rejects the former view; our empirical findings, as just discussed, reject the latter view.

A related view is that notification is important but that all investors somehow find out about a record date before it occurs. Hence, the changes in notification we document are deemed nonconsequential. A variation on this theory is that the precise day on which stocks go ex vote is unimportant because investors simply buy any stock they want a few weeks before what they think will be the record day. Our findings cast doubt on these explanations as well. Knowledge of a voting record

<sup>18</sup>Shareholders may vote any time after a record date, and they may change their vote at any time before a meeting date.

date before it occurs appears to be important to three groups of market participants: managers who file the proxies announcing the voting record dates; activist investors who accumulate stock while it is cum vote; and retail investors who are selling stock around the time of a record date. We now consider each group in turn.

Corporate managers act as if notification of a record date matters because whether they file the proxy initially announcing the record date before or after that date depends on the nature of the proposals involved (Tables 3–6). If all investors somehow learn of a record date before a proxy is filed or if investors simply purchase stock sufficiently in advance of what they expect to be the record date, we should not observe such strategic behavior because it would be futile. Moreover, both activist investors and legal scholars allege that managers manipulate voting record dates (as with AmTrust). The timing of notifications of voting record dates thus appears to be another avenue enabling managers to influence their shareholders' votes.<sup>19</sup>

Although we can say with confidence that whether a proxy is filed before or after a record date matters to managers, we do not yet have a full understanding of their timing decisions. This is challenging in part because managers have broad discretion regarding when they file definitive proxies and thus announce voting record dates. The timing of such an endogenous decision could, for instance, be influenced in some instances by activist investors. Perhaps during negotiations with management, they push for a certain timing of the release of a record date. The timing of this decision could also be impacted by the composition of the shareholder base, in particular the division between institutional investors (who are more likely to confront management) and retail investors (who are more likely to support management). Some readers have suggested that managers will always want to delay revealing record dates, but this is not necessarily so. For some votes and with some shareholder bases, managers may find it advantageous to release voting record dates before the fact, while with other votes and other shareholder bases they may make the opposite decision. Sorting out these endogenous decisions is worthy of future study.

Knowledge of voting record dates also appears to matter to activist investors. If this were not the case, it is unclear why they would purchase record-date information from the NYSE (at prices some characterize as excessive). Higher trading volume before a stock goes ex vote and the decline in the price thereafter are also both consistent with activist shareholders' accumulating votes for the next shareholders' meeting.

Notification of voting record dates or the lack thereof also impacts retail investors. Here a comparison with record dates for the other significant distribution to shareholders, cash dividends, is illuminating. Assume that a retail investor wants to sell stock. If she does not know the record date for a cash dividend, she is

<sup>19</sup>For example, Li and Yermack (2016) document that managers move annual shareholder meetings farther from corporate headquarters to discourage scrutiny by shareholders when the managers hold private, adverse information about a firm's future performance. Bebchuk and Kamar (2010) document that management often bundles proposals for staggered boards, which shareholders are likely to oppose, with proposals for mergers, which shareholders are likely to support. Dimitrov and Jain (2011) as well as Baginski, Clinton, and McGuire (2014) report that firms are more likely to release positive news as opposed to negative news when shareholders are voting.

nevertheless price-protected. If she sells her stock cum dividend, she will receive a higher price that is approximately equal to the dollar amount of the forthcoming dividend. If she instead sells ex dividend, she will receive less per share, but she will, of course, also receive the cash dividend. To be sure, there will be a difference if capital gains are taxed at a different rate than dividends, but because record dates for cash dividends are publicly announced well in advance she can adjust the timing of her sale. In contrast, in 91% of the cases, a retail investor will not know a voting record date before it occurs (assuming she learns of voting record dates from proxy statements, as would seem to be the case with retail investors). If she unwittingly delays selling until after the voting record date, she is left with a lower stock price and a vote that now is essentially worthless to her.<sup>20</sup> With DuPont, she would have received \$5.82 more per share if she had sold her stock cum vote instead of ex vote (Table 1). Of course, with DuPont she would not have learned that her stock went ex vote until well after the fact.

Our findings also quantify for the first time how much activist investors must pay for marginal votes to influence forthcoming votes (Tables 7 and 8). This is also how much investors lose by selling a stock ex vote as opposed to cum vote. This amount varies in predictable ways with proposals before shareholders and the manner in which management and stock exchange officials notify investors of record dates (see Tables 8, 9, and 11).

Two lines of research are related to our study in that they also measure changes around voting record dates. Kind and Poltera (2013) and Kalay, Karakas, and Pant (2014) use option pricing to create a synthetic security that has the same cash flows as the underlying stock but lacks the right to vote.<sup>21</sup> They compare the price of that security with the price of the underlying stock around the record day. Christoffersen et al. (2007) and Aggarwal, Saffi, and Sturgess (2015) examine stock lending around voting record dates. Investors who borrow stock and hold it on the record date are entitled to vote the stock. In follow-on research, we are comparing what one learns both theoretically and empirically from our approach with what one learns from these other two approaches.

### C. Policy Issues

Lastly, our empirical findings raise a number of policy issues. We discuss a few of these below.

*Should managers have the discretion to determine when a voting record date is announced, including announcing it after it has occurred?* Currently, managers have broad discretion regarding when they reveal a voting record date to the public by filing a definitive proxy (Table 4). Under current law, for example, managers may help investors allied with them accumulate shares and thus exert additional influence by revealing the voting record date before it occurs, certainly publicly by

<sup>20</sup>Outright sales of corporate votes are typically illegal. Moreover, even if they are legal, the transactions costs involved in arranging such a sale, particularly identifying small retail shareholders who want to sell their votes, would seem to be a barrier to all but the most unusual of sales.

<sup>21</sup>An investor simultaneously buys a call option and sells a put option with the same strike price and time to expiration. The investor then invests a dollar amount equal to the present value of the strike price in a risk-free asset.

filing a proxy and possibly privately. Brav et al. (2022) find that retail investors generally are more supportive of management than are institutional investors. Because retail investors presumably learn of voting record dates exclusively through proxies, this might help to explain why managers are more likely to file proxies before record dates with some controversial votes than they are with regular votes (Tables 4 and 5). Given that voting plays an important role in helping shareholders constrain managers, one can question whether it is appropriate for managers to enjoy such discretion to affect their shareholders' votes.

*Should all investors learn a record date at the same time?* A cornerstone of federal securities laws is that all investors should have equal access to material information. This, however, does not appear to be the case with some voting record dates. In some cases, certain investors appear to learn of the record dates before the public learns, either through the NYSE's subscription service or through another as-yet-unidentified means. Furthermore, these investors usually learn of a record date before it occurs while the public usually learns of the record date after it has passed. Thus, in many instances investors who know of a forthcoming record date are trading with individuals who lack this information.

Securities lawyers have suggested that this situation might have arisen because, traditionally, voting record dates have not been considered material, perhaps because there was no empirical evidence regarding what happens when votes are distributed to shareholders. According to an accepted definition of material information, it causes people to change their behavior. By this definition, our paper offers a wide variety of evidence that several groups of market participants change their behavior around voting record dates. Under this widely accepted definition, the distribution of votes to shareholders is a material event.

*Should stock exchanges be allowed to sell nonpublic material information?* Although several papers document efforts by management to influence the voting process, to the best of our knowledge ours is the first paper to raise the possibility that stock exchange officials also influence voting by selling nonpublic information that identifies the voting record dates to select market participants. This issue goes beyond voting because the NYSE collects a broad array of data from listed firms as part of its "self-regulation" initiative and then sells the data to subscribers. The Corporate Actions package alone, which is where we obtained our NYSE data, "comprises several reports providing over 60 different corporate actions types for all equities listed on the NYSE Group ... including but not limited to cash dividends, stock dividends, distributions, splits, new listings (IPOs), suspensions and de-listings" (<https://www.nyse.com/markets/nyse-arca/reports>). Investigating the impact of the sale of these other data items seems an important topic for future study.

*When a proxy has not been filed and there is no notification by the stock exchange, how do some investors learn of a record date before it occurs?* Some investors learn of a voting record date before it occurs even when there is no formal prenotification of the record date either through a proxy or by the stock exchange (Figure 2 and Table 11). Perhaps corporate insiders are trading or informing those who trade; it is also possible that brokers (who under SEC Proxy Rule 14a-13 must be informed of a record date at least 20 business days prior to the record date) inform select customers of record dates. Even if some investors learn of voting record dates beforehand, it appears that not all investors do (Table 4).

We might explain this unusual state of affairs in part by noting that shareholder voting falls between state and federal laws. State laws require that firms hold annual shareholder meetings and that shareholders make certain decisions, such as electing directors and changing articles of incorporation. But state law generally does not regulate how firms communicate with shareholders. Federal law does not require shareholder voting but does regulate how firms communicate with shareholders.

We see two broad ways to address these notification issues. First, by-laws and articles of incorporation could be changed to require that management publicly announce voting record dates a certain number of days before they actually occur. Second, laws could be changed.

With regard to both policy approaches, it is instructive to consider current European Union laws (Directive 2007/36/EC of the European Parliament and of the Council of 11 July 2007, “On the Exercise of Certain Rights of Shareholders in Listed Countries”). As in the United States, in Europe a proxy must specify a record date to determine who may vote in a forthcoming shareholders’ meeting (sometimes called an “announcement of convocation” although here we will refer to it as a proxy for clarity in the comparison). In contrast to the practice in the United States, in Europe voting record dates must occur at least eight days after the filing of a proxy. Consequently, in Europe everyone learns of a voting record date presumably at the same time and certainly (at least 8 days) before the record date itself. Furthermore, in Europe the record date may occur no more than 30 days before the shareholders’ meeting. In the United States, this is left to state law. In both Delaware and California, record dates may occur no more than 60 days or fewer than 10 days before shareholders’ meetings. (This is one example of how regulation of voting record dates in the United States is governed by both federal and state laws.) For our sample, the average time between record dates and meeting dates is 49.8 days (an untabulated result). European law does not further regulate the period between record and meeting dates, although the laws of some member countries do. Under Finnish law, for instance, the record date must always be the tenth day before the shareholders’ meeting.

Overall, compared with the American approach, the European approach allocates few decision rights to management regarding either setting or announcing voting record dates. In particular, the European approach seems to prevent management from influencing the outcome of a vote by announcing the record date before or after it has already occurred (perhaps depending on the nature of the shareholder base and issue at hand); the European approach also seems to establish a level playing field in that all investors, no matter how sophisticated, learn of voting record dates before they occur and at the same time.<sup>22</sup>

## VI. Conclusion

This is the first study of one of the most common control events for any firm: the distribution of voting rights to shareholders. While the many empirical

<sup>22</sup>Kahan and Rock ((2008), p. 1270) discuss the possibility of requiring firms to announce shareholder meeting dates, meeting agendas, and voting record dates at the same time and in advance of record dates themselves. They quote “one informed observer [who confidentially] commented, ‘If you did that, can you imagine the volume of trading in advance of the record date?’”

regularities we find show that historical neglect of what happens when stocks go from cum vote to ex vote is not warranted, at the same time they raise numerous questions for both policymakers and researchers. Addressing these questions will be important because the control of any corporation rests ultimately with its shareholders and their power derives primarily through voting. Many shareholder votes are perfunctory, but some are not. It is with the distribution of these votes that the ex-day changes are most informative.

## References

- Aggarwal, R.; P. A. C. Saffi; and J. Sturgess. "The Role of Institutional Investors in Voting: Evidence from the Securities Lending Market." *Journal of Finance*, 70 (2015), 2309–2346.
- Amihud, Y. "Illiquidity and Stock Returns: Cross-Section and Time-Series Effects." *Journal of Financial Markets*, 5 (2002), 31–56.
- Angel, J. A. "Nonstandard-Settlement Transactions." *Financial Management*, 27 (1998), 31–46.
- Baginski, S. P.; S. B. Clinton; and S. T. McGuire. "Forward-Looking Voluntary Disclosure in Proxy Contests." *Contemporary Accounting Research*, 31 (2014), 1008–1046.
- Bebchuk, L. A., and E. Kamar. "Bundling and Entrenchment." *Harvard Law Review*, 123 (2010), 1549–1595.
- Bethel, J.; G. Hu; and Q. Wang. "The Market for Shareholder Voting Rights Around Mergers and Acquisitions: Evidence from Institutional Daily Trading and Voting." *Journal of Corporate Finance*, 15 (2009), 129–145.
- Brav, A.; M. D. Cain; and J. Zytznick. "Retail Shareholder Participation in the Proxy Process: Monitoring, Engagement, and Voting." *Journal of Financial Economics*, 144 (2022), 492–522.
- Brav, A., and R. D. Mathews. "Empty Voting and the Efficiency of Corporate Governance." *Journal of Financial Economics*, 99 (2011), 289–307.
- Cai, J., and R. A. Walkling. "Shareholders' Say on Pay: Does it Create Value?" *Journal of Financial and Quantitative Analysis*, 46 (2011), 299–339.
- Christoffersen, S. E. K.; C. C. Geczy; D. K. Musto; and A. V. Reed. "Vote Trading and Information Aggregation." *Journal of Finance*, 62 (2007), 2897–2929.
- Dimitrov, V., and P. C. Jain. "It's Showtime: Do Managers Report Better News Before Annual Shareholder Meetings?" *Journal of Accounting Research*, 49 (2011), 1193–1221.
- Dodd, P., and J. B. Warner. "On Corporate Governance: A Study of Proxy Contests." *Journal of Financial Economics*, 11 (1983), 401–438.
- Dolley, J. C. "The Price-Effect of Stock Right Issues." *Journal of Business*, 7 (1934), 133–160.
- Elton, E. J., and M. J. Gruber. "Marginal Stockholder Tax Rates and the Clientele Effect." *Review of Economics and Statistics*, 52 (1970), 68–74.
- Elton, E. J.; M. J. Gruber; and C. R. Blake. "Marginal Stockholder Tax Effects and Ex-Dividend Day Behavior—Thirty-Two Years Later." Working Paper, available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=363620](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=363620) (2003).
- Fos, V.; K. Li; and M. Tsoutsoura. "Do Director Elections Matter?" *Review of Financial Studies*, 31 (2018), 1499–1531.
- Ghosh, C.; J. E. Owers; and R. C. Rogers. "Proxy Contests: A Re-Examination of the Value of the Vote Hypothesis." *Managerial Finance*, 18 (1992), 3–18.
- Hasbrouck, J.; G. Sofianos; and D. Sosebee. "New York Stock Exchange Systems and Trading Procedures." Working Paper, New York Stock Exchange (1993).
- Hirst, S., and A. Z. Robertson. "Hidden Agendas in Shareholder Voting." *Yale Journal on Regulation*, forthcoming (2022).
- Holderness, C. G. "Equity Issuances and Agency Costs: The Telling Story of Shareholder Approval Around the World." *Journal of Financial Economics*, 129 (2018), 415–439.
- Hong, H., and J. C. Stein. "Disagreement and the Stock Market." *Journal of Economic Perspectives*, 21 (2007), 109–128.
- Hu, H. T. C., and B. Back. "Hedge Funds, Insiders, and the Decoupling of Economic and Voting Ownership: Empty Voting and Hidden (Morphable) Ownership." *Journal of Corporate Finance*, 13 (2007), 343–367.
- Huang, I-H. "On the Estimation of the Value of Voting Rights: Evidence from Taiwan." *Corporate Ownership & Control*, 3 (2005), 15–22.



- Jensen, M. C., and R. S. Ruback. "The Market for Corporate Control: The Scientific Evidence." *Journal of Financial Economics*, 11 (1983), 5–50.
- Kahan, M., and E. Rock. "The Hanging Chads of Corporate Voting." *Georgetown Law Journal*, 96 (2008), 1227–1281.
- Kalay, A.; O. Karakas; and S. Pant. "The Market Value of Corporate Votes: Theory and Evidence from Option Prices." *Journal of Finance*, 69 (2014), 1235–1271.
- Kandel, E., and N. D. Pearson. "Differential Interpretation of Public Signals and Trade in Speculative Markets." *Journal of Political Economy*, 103 (1995), 831–872.
- Kind, A., and M. Poltera. "The Value of Corporate Voting Rights Embedded in Option Prices." *Journal of Corporate Finance*, 22 (2013), 16–34.
- Kyle, A. S. "Continuous Auctions and Insider Trading." *Econometrica*, 53 (1985), 1315–1335.
- Levit, D.; N. Malenko; and E. Maug. "The Voting Premium." Working Paper, available at [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3783944](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3783944) (2021).
- Levit, D.; N. Malenko; and E. Maug. "Trading and Shareholder Voting." Unpublished Working Paper, SSRN (2022).
- Li, K.; T. Liu; and J. Wu. "Vote Avoidance and Shareholder Voting in Mergers and Acquisitions." *Review of Financial Studies*, 31 (2018), 3175–3211.
- Li, S. Z.; E. G. Maug; and M. Schwartz-Ziv. "When Shareholders Disagree: Trading After Shareholder Meetings." *Review of Financial Studies*, 35 (2022), 1813–1867.
- Li, Y., and D. L. Yermack. "Evasive Shareholder Meetings." *Journal of Corporate Finance*, 38 (2016), 318–334.
- Manne, H. G. "The 'Higher Criticism' of the Modern Corporation." *Columbia Law Review*, 62 (1962), 399–432.
- Yermack, D. L. "Shareholder Voting and Corporate Governance." *Annual Review of Financial Economics*, 2 (2010), 103–125.
- Young, P. J.; J. A. Millar; and G. W. Glezen. "Trading Volume, Management Solicitation, and Shareholder Voting." *Journal of Financial Economics*, 33 (1993), 57–71.