Management (of) Proposals*

Ilona Babenko
W. P. Carey School of Business,
Arizona State University

Goeun Choi
A. B. Freeman School of Business,
Tulane University

Rik Sen
School of Banking and Finance,
University of New South Wales

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ABSTRACT

Using shareholder voting records on management proposals, we find evidence of systematic managerial influence on outcomes of close votes. This behavior is more pronounced for firms with low institutional ownership and for proposals receiving a negative ISS recommendation. Approximately 65% of management proposals headed for a narrow defeat have their outcome altered. We identify new mechanisms by which managers influence the outcome, such as meeting adjournment and selective campaigning. The market reacts positively to the failure of management proposals. Combined with our theoretical model, these results suggest that managerial influence on the voting process is value-destroying.

*Babenko is at the W. P. Carey School of Business, Arizona State University, Tempe AZ 85287, USA, Emails: ibabenko@asu.edu; Choi is at the A. B. Freeman School of Business, Tulane University, New Orleans LA 70118, USA, Emails: gchoi1@tulane.edu; Sen is at the School of Banking and Finance, University of New South Wales, Australia, Email: rik.sen@unsw.edu.au. We are grateful for comments from Tara Bhandari, Andriy Bodnaruk, Vicente Cũnat, Alexander Dyck, Vivian W. Fang, Stuart Gillan, Ogŭzhan Karakaş, Nadya Malenko, Ron Masulis, Randall Morck, Naveen Daniel, Mattias Nilsson, Beibei Shen, Yao Shen, Laura Starks, Thomas To, Timothy E. Trombley, Yupana Wiwattanakantang, David Yermack, Alminas Zaldokas, and the participants in the 2020 RAPS/RCFS Winter Conference, 2019 AFA Meeting, 2019 FIRS Conference, 2019 ABFER Conference, 2019 Adam Smith Workshop, 2018 Free Network Retreat, 2018 CICF Conference, 2018 Indian School of Business Conference, 2018 Minnesota Corporate Finance Conference, 2018 University of Alberta Finance Conference, and Arizona State University, Deakin University, University of New South Wales, U.S. Securities and Exchange Commission, and University of Alabama seminars.

1. Introduction

Corporate voting is one important way in which shareholders can voice their opinions and exert influence over the decisions of a firm's management (Edmans and Holderness (2017), McCahery, Sautner, and Starks (2016), and Appel, Gormley, and Keim (2016)). However, given shareholders' rational apathy and free-rider problems, as well as the sheer complexity of the voting system and its inability to provide clear and efficient vote verification (Kahan and Rock (2008)), academics, practitioners, and regulators have questioned whether the outcomes of shareholder meetings accurately reflect shareholder preferences. In this paper, we use shareholder voting records on 26,981 management proposals between 2003 and 2015 to analyze whether managers influence the voting outcomes in their favor and how such influence affects the interests of their shareholders.

Our focus on management proposals is motivated by two main reasons. First, most of the proposals on which shareholders vote are brought up by firm management, such as proposals to issue shares, approve mergers, liquidate assets, reorganize, adopt new compensation plans, change bylaws, or elect new directors.[1] Second, unlike shareholder proposals, which are advisory in nature and do not have to be implemented even if they pass, most of management proposals are required to be voted on by stock exchanges, corporate charter, or state law. These legal requirements may create an incentive for management to ensure that its proposals pass.

A related question is whether managers have the means to affect the vote outcomes. In the United States, management has an almost exclusive right to see real-time voting information (Kahan and Rock (2011), Gumbs, Hamblet, and Stortini (2013)),[2] which

[1] This is also true for closely contested proposals. For example, there are approximately 60% more management proposals in our sample that pass or fail by less than a 10% margin than there are similar shareholder proposals.

[2] For example, in uncontested solicitations and exempt solicitations, issuers can obtain from Broadridge voting instructions returned to date from ICS Online (see the report on October 9, 2014 from the SEC's Investor Advisory Committee on impartiality in the disclosure of preliminary voting results).

allows it to use multiple tactics to affect the vote on proposals headed for a narrow defeat. For example, management can adjourn the likely losing proposal to a later date, withdraw the proposal and bring it up later, lobby shareholders in the hope of influencing their votes (Bhandari, Iliev, and Kalodimos (2021), Ellis, Gerken, and Jame (2022)), solicit more votes from retail investors who may vote pro-management (Brav, Cain, and Zytnick (2022)), and ask institutions with business ties to the firm to vote favorably on a proposal (Cvijanovic, Dasgupta, and Zachariadis (2016), Calluzzo and Kedia (2019)). In addition, managers can decide whether to employ the services of a professional proxy solicitation firm (Young, Millar, and Glezen (1993), Bethel and Gillan (2002)), how to deliver the proxy materials to registered owners (Lee and Souther (2020)), when to close the polls, and how to reconcile discrepancies in vote counts.

To examine the extent of managerial influence on the voting process, we focus on closely contested management proposals. If management does not influence the voting process once the proposal is put on the ballot, we would expect the density of proposals to be continuous around the passage threshold. This is because the precise outcome of a vote is unknown when a proposal is initially put on the agenda, so management cannot choose to bring up only those proposals that will win by a small margin.[3] Graphical evidence in Figure 1 and formal econometric tests by McCrary (2008) and Cattaneo, Jansson, and Ma (2020) indicate, however, that there is a sharp increase in the density of proposals around the threshold for passage. Specifically, there are approximately 3.5 times as many proposals that pass by a small margin than proposals that fail by a small margin.[4] Notably, the magnitude of the discontinuity we document

[3]Even if management knows precisely how some of its shareholders are going to vote, it cannot act based on this information in a way that leads to a sharp discontinuity. Suppose, for example, management knows exactly how 90% of the shares are going to be voted. The noise in voting in the remaining 10% of shares is sufficient to make the distribution in a very narrow interval around the threshold continuous.

[4]Although the empirical strategy we use may appear similar to a regression discontinuity design (RDD), it is worthwhile to clarify that it is not the same. An RDD relies on showing a discontinuity in the central tendency of an outcome variable for the values of a running variable on the two sides of a threshold. In contrast, we

for management proposals is approximately three times larger than the one reported by Bach and Metzger (2019) for the sample of shareholder proposals.[5]

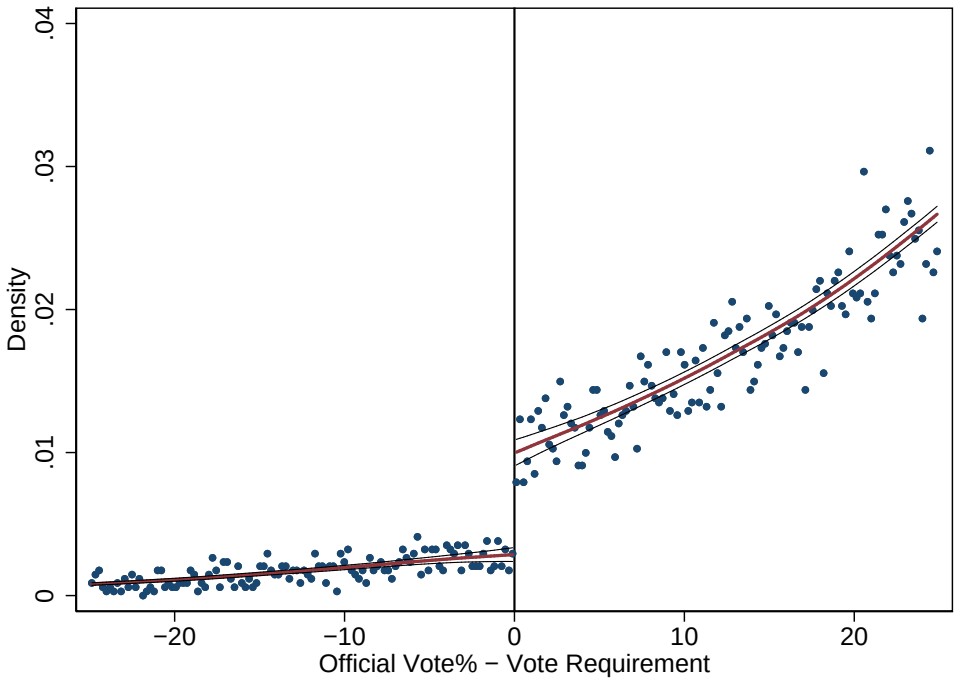

Figure 1. Density of management proposals around the passage threshold. For each proposal, we calculate the difference between the official vote and the vote requirement needed to approve the proposal. Blue dots represent the proposal density in each 0.2% bin. Solid red line displays fitted flexible polynomials to the probability density function on each side of the passage threshold. Solid black lines provide the corresponding confidence intervals.

By studying the cross-section of firms and different categories of proposals, we find stronger evidence of strategic behavior by management in firms with less independent boards and lower institutional ownership. Given that institutional investors tend to be better informed in proxy voting (see, e.g., Iliev and Lowry (2015)), Gantchev and Giannetti (2021), and McCahery, Sautner, and Starks (2016)), this evidence suggests that lack of monitoring may increase the ability of management to influence the outcomes

are examining the discontinuity in the probability density function of this variable. Such an empirical strategy has been used in the economics literature (see, e.g., Bertrand, Kamenica, and Pan (2015)). We do employ the standard RDD methodology later to test for covariate balance in certain outcomes around the threshold.

[5]We discuss in detail the differences between our paper and Bach and Metzger (2019) in the literature review section.

of close votes. The discontinuity in proposal density is also more pronounced in smaller firms, consistent with investors in such firms paying less attention to shareholder meetings (Iliev, Kalodimos, and Lowry (2021)). Finally, we observe that the discontinuity is greater for proposals opposed by Institutional Shareholder Services (ISS).

In general, the discontinuity in proposal density could arise from managers being able to pass a larger share of close proposals or from withdrawing narrowly failing proposals. Indeed, in our sample 7.8% of all management proposals are withdrawn. Nevertheless, withdrawals cannot explain a large part of the discontinuity. First, almost half of the withdrawn proposals are listed on the agenda as "Other Business" and are withdrawn simply because there is no other business to vote on. Second, the higher frequency of withdrawals for particular agendas does not coincide with greater density discontinuities in the data. Finally, the discontinuity in proposal density around the passage threshold is also present for shareholder proposals that cannot be withdrawn by management.

To determine how many proposals are affected by management actions, we follow the public economics literature on bunching developed by Kleven and Waseem (2013) and Kleven (2016) and calculate the bunching and missing mass of proposals around the passage threshold relative to the smooth counterfactual distribution. We find that in the -5% to +5% range around the passage threshold, approximately 13.8% of proposals are bunching above the threshold and 20.7% of proposals are missing below the threshold, with the difference between the two estimates likely attributed to proposal withdrawals.[6] Further, if we focus on a very narrow range around the passage threshold, we estimate that approximately 65% of management proposals headed for a narrow defeat have their outcome altered.

We next examine the mechanisms by which management achieves its desired vote outcomes. Our focus is on managerial strategies that affect the potential narrow loss

[6]Note that if unsuccessful proposals are withdrawn and management does not influence the voting outcome in any other way, we would see only the missing mass, but no bunching. To the extent that we observe both, proposal withdrawals cannot explain the discontinuity.

proposals, which require managers to have identified the proposals headed for a narrow defeat.[7] For example, management can influence the voting on a particular proposal by adjourning the meeting to a later date. This procedure is legal if shareholders approve a proposal that gives management the choice to adjourn the meeting. For example, when Jarden Corporation held its annual meeting on May 28, 2009, shareholders were asked to vote on director elections, ratification of auditors, approval of a new stock compensation plan, and meeting adjournment or postponement. While the first two proposals and meeting adjournment were passed on that date, voting on the new compensation plan was adjourned until June 4 (presumably because it was not getting enough support to pass), which gave management more time to lobby shareholders. Notably, the compensation plan eventually passed on June 4 by a less than 0.3% margin. We find that this case is not isolated, with 8.8% of all shareholder meetings having a meeting adjournment on the ballot. Further, the discontinuity in proposal density is approximately two times larger in such cases, suggesting that meeting adjournments represent one of the mechanisms by which management influences vote outcomes.

Another way in which executives can gain an edge in corporate voting is through selective campaigning and sending the additional solicitation material to shareholders shortly before the vote. Indeed, firms often hold investor presentations and send the solicitation materials to shareholders after reviewing the preliminary voting information, and they disclose it in DEFA14A forms. We find that such solicitation is effective. Specifically, the discontinuity in proposal density is significantly sharper for firms that file an additional definite proxy document DEFA14A after the initial proxy filing date.

Given the high passage rate of management proposals and the ability of manage-

[7] Some managerial strategies can lead to a general (unconditional) increase in voting support, such as buying more shares on a personal account ahead of record date for a vote, exercising stock options (Fos and Jiang (2015)), or deciding when and to whom to disclose the record dates (Fos and Holderness (2021)). While these strategies can increase the proposal passage rate by shifting the entire distribution, they cannot explain a sharp discontinuity in proposal density around the passage threshold. Further, because such strategies typically change a firm's shareholder base and therefore change the aggregate shareholder preferences, they may be more benign than the managerial influence on the voting process ex post.

ment to influence the vote outcomes, an important question is whether closely won management proposals benefit the shareholders. For example, it could be that because management is better informed about the costs and benefits of a proposal,[8] it influences the voting outcome to advance shareholder interests. An alternative view, however, is that management pushes through initiatives that involve self-dealing, expropriate certain groups of shareholders, or increase board entrenchment.

To understand these tradeoffs, we build a simple theoretical framework that allows for both value-creating and value-destroying managerial influence on vote outcomes and links it to the market reaction to vote outcomes. The model shows that if managerial influence on vote outcomes is value-destroying, we should expect to see, on average, a positive market reaction to proposal failure and a negative market reaction to proposal passage. The opposite market reactions should be observed if managerial influence is value-creating. Further, the model shows that when managerial influence on vote outcomes is value-destroying, shareholders strategically change their voting behavior and vote in favor of proposals too often, sometimes even despite having a relatively unfavorable information about proposal value. Therefore, a high passage rate of management proposals does not necessarily imply a high quality of the average proposal.

Turning to the data, we find that the news that a management proposal lost narrowly is associated with a positive abnormal return of 5.3%, while passage is associated with a small negative return. Given evidence of significant manipulation of the running variable in our sample (voting support percentage), we cannot interpret narrow wins and losses as random. Nevertheless, when a proposal passes narrowly, this event can only lead to the market's estimated probability of passage being updated upwards (and not downwards). Therefore, the direction of the price reaction to narrow wins and losses is informative about the value of a proposal (see, e.g., Gerard, Rokkanen, and Rothe

[8] For example, Gantchev and Giannetti (2021) find that proposals submitted by active individual sponsors are often ill-conceived, while Bhandari, Iliev, and Kalodimos (2021) show that shareholders do not launch and support more proposals at firms that are expected to benefit the most.

(2015) and Lee and Lemieux (2010) for identification with RDD with a manipulated running variable). Our empirical results suggest that closely contested management proposals do not create value for shareholders. Viewed through the prism of the model, these results imply that managerial influence on the voting process is value-destroying.

The remainder of this paper is organized as follows. Section 2 offers a brief literature overview. Section 3 describes the sample construction and presents summary statistics. Section 4 presents evidence on the managerial influence on vote outcomes, and Section 5 discusses firm value implications. The theoretical model is provided in the Appendix.

2. Related literature

Our paper contributes to the literature on corporate governance. Many papers in this area focus on advisory shareholder proposals. By measuring the market reaction to votes on governance proposals that pass or fail by a small margin, Cũnat, Gíne, and Guadalupe (2012, 2016) show that shareholder proposals tend to create firm value and improve long-term profitability. However, there is significant heterogeneity in the quality of shareholder proposals. For example, Matsusaka, Ozbas, and Yi (2021) find that the market reacts positively when the SEC permits a challenged proposal to be omitted from the proxy, suggesting that the challenged proposals are value-destroying. Relatedly, Gillan and Starks (2000) show that the stock market reaction to shareholder proposals varies systematically across sponsor identity, and Gantchev and Giannetti (2021) find that proposals submitted by active individual investors are value-destroying.

Shareholder voting can also have a significant effect on firm policies (see Yermack (2010) for a review). For example, Iliev, Lins, Miller, and Roth (2015) and Aggarwal, Dahiya, and Prabhala (2019) find that greater dissent voting is associated with greater director turnover and M&A withdrawals. Similarly, Ferri and Sandino (2009) and Ertimur, Ferri, and Oesch (2013) find that firms that were a target of shareholder

proposals were more likely to adopt option expensing and to decrease CEO pay. In contrast, Armstrong, Gow, and Larcker (2013) argue that shareholder voting has little effect on firms' compensation policies.

Our paper is also related to the literature on the value of corporate vote (see Adams and Ferreira (2008) for a review). Christoffersen, Geczy, Musto, and Reed (2007) were among the first to document an active market for corporate votes around a record date, but did not find significant changes in stock specialness. Fos and Holderness (2021) show that firms often notify investors of the record date after that date has passed, and they find that prices decline when stocks go ex vote. Aggarwal, Saffi, and Sturgess (2015) find that institutional investors frequently recall their shares before a record date to vote against management. In contrast, Cvijanovic, Dasgupta, and Zachariadis (2016) show that managers may use their firm's business ties with mutual funds to gain additional support on contested proposals. Using option prices, Kalay, Karakaş, and Pant (2014) estimate the market value of shareholders' voting rights and show that it is higher for special meetings and for proposals with higher-ranked agendas.

The two papers that are closest to ours are Listokin (2008) and Bach and Metzger (2019). In particular Listokin (2008), using data on management proposals between 1997 and 2004, documents that more proposals receive support just above the 50% threshold than just below. He concludes that the mechanism by which management influences voters is unclear and does not analyze heterogeneity in incentives and ability of management to affect the voting outcome. Further, as Listokin (2008) admits, the patterns he documents may be driven by the fact that registered brokers, who are easy targets for lobbying by managers, had the authority to vote uninstructed shares held in a "street name" on behalf of their clients. Before 2003, but not after, the broker voting authority applied to issuances of new equity up to a limit of 5% of outstanding shares, which frequently included the funding for equity-based compensation plans (Maug and

Rydqvist (2009)). Our study is not affected by this issue since our sample is post-2003. Finally, unlike us, Listokin (2008) does not examine value implications.

In a related paper, Bach and Metzger (2019) focus on shareholder proposals and document significant "vote rigging" by management. In contrast, we focus on management proposals, which differ on several dimensions. First, unlike shareholder proposals, which do not have to be implemented after passing, most of management proposals that pass are binding.[9] For example, Ertimur, Ferri, and Stubben (2010) estimate that only 31% of passed shareholder proposals are implemented. From a theory perspective, shareholder votes may be less informative to management because proposals are non-binding (Levit and Malenko (2011)). Second, to the extent that management proposals pursue different agendas (with much less focus on governance issues),[10] management may have a different incentive to influence the outcome. Third, management has discretion over when to put a proposal up for a vote and how to present it, and can withdraw the proposal if preliminary results indicate that shareholder support is insufficient. In fact, we show using theory that because management can choose which proposals to bring up for a vote, the pool of management proposals on the ballot is significantly different from the pool of potential proposals.[11] The magnitude of density discontinuity we document for management proposals is approximately three times greater than that for shareholder proposals, suggesting that management cares more about passing its own proposals than about rejecting shareholder proposals. Finally, we identify new mechanisms management uses to pass their proposals, such as meeting adjournment and selective campaigning, and analyze firm value implications of managerial influence

[9] Although there may be costs to the management of not implementing a majority-approved shareholder proposal (e.g., a higher likelihood of proxy fights, vote "no" campaigns, and other forms of shareholder activism), at least the management has the choice not to implement it.

[10] For example, Buchanan, Netter, and Yang (2015) find that 46% of shareholder proposals are related to firms' corporate governance practices, while we find that less than 12% of management proposals target similar agendas.

[11] For example, the value of a project to shareholders and the private benefits it generates to the firm manager are negatively correlated among proposed proposals, even if no such correlation is observed among all potential projects.

on the voting process both theoretically and empirically.

Overall, our evidence suggests that the outcomes of shareholder meetings may not always be viewed as reliable expressions of the general will by the shareholders. In fact, the theoretical model shows that when managerial influence on vote outcomes is value-destroying, shareholders are more likely to vote in favor of management proposals that entail more manipulation by the management. Thus our results suggest that "voice" may not always be an efficient way to implement changes in corporate governance and give more prominence to other mechanisms, such as the threat of "exit" (see, e.g., theoretical work by Admati and Pfleiderer (2009), Edmans (2009), Edmans and Manso (2011), and Dasgupta and Piacentino (2015)). Further, given research in political science that finds that voters' perceptions of electoral fairness have significant effects on their voting behavior and attitude toward elections (Blais (2000), Norris (2014), and Birch (2010)), our results speak to the debate on the quality of corporate voting more generally.

3. Sample and summary statistics

3.1. Sample

We start with all management-sponsored proposals in the ISS Voting Analytics database that were initiated by U.S. firms during the period 2003 to 2015.[12] Because we are interested in contested management proposals, we remove proposals with 0% and 1% vote requirements, as well as proposals with the following agenda items: elections of directors and committee members, appointments and ratification of auditors, acceptance of financial statements and statutory reports, and all proposals to adjourn meeting.[13] Because holding a vote on Say-on-Pay proposals was required by the Dodd-Frank Act

[12] From 2003 onward, ISS Voting Analytics collected data on Russell 3,000 firms; the data post-2013 also includes other companies.

[13] Not all proposals in these categories are uncontested, but we remove the whole category to keep our analysis consistent.

of 2010 and therefore these proposals became non-discretionary, we further remove proposals related to advisory votes on Say-on-Pay policies starting from 2010 (i.e., agendas with "an advisory vote to ratify named executive officers' compensation", "an advisory vote on Say-on-Pay frequency", and "an advisory vote on golden parachutes"). We also exclude meetings classified as "Proxy Contests" (approximately 0.6% of the sample).

We focus on firms with a single class of shares because control-related issues may dominate voting dynamics for dual-class firms and also because in such cases it is difficult to obtain an accurate vote count.[14] Specifically, for firms covered by the ISS Governance database, we remove all firm-years that are identified in the database as dual-class, and for firms not covered by ISS Governance we remove those firm-years that have a non-blank share class field (SHRCLS) in the Center for Research in Securities Prices (CRSP) monthly files (e.g., "A"). To make sure that we have not missed any dual-class firms, we also remove any firm-years where for any shareholder meeting we observe multiple entries for a vote on the same ballot item number. We merge the baseline sample with accounting variables from COMPUSTAT, stock returns from the CRSP, the information on the number of analysts following the stock from I/B/E/S, the institutional ownership data from the Thomson Reuters Institutional Holdings (13F), and board characteristics from the ISS Directors database.

For each proposal with an outcome of "Pass" or "Fail" and information on the number of votes, we calculate the official fraction of votes in support of the proposal ($Vote$). The voting base determines the denominator of this variable, with the distinction being made between shares that vote for (F), vote against (A), abstain from voting (AB), are recorded as broker non-votes ($Nonvotes$), and are not present at the meeting ($Absentees$). The total number of shares outstanding, N, can be written

[14] Although Voting Analytics typically records votes by different classes of stock as separate data entries, it does not specify how many votes each share in a class is entitled to, and vote numbers are often missing for at least one share class.

as $F + A + AB + Nonvotes + Absentees$.[15] If the voting base is shares outstanding, i.e., "Outstanding" or "Capital Represented," then $Vote = \frac{F}{N}$. If the base is "F+A" or "Votes Represented," then $Vote = \frac{F}{F+A}$, and if the base is "F+A+AB", then $Vote = \frac{F}{F+A+AB}$.

For each shareholder meeting, a quorum requirement has to be met before any business takes place. For purposes of a quorum, broker non-votes and abstentions are typically counted as shares present, so that voter turnout is $Turnout = \frac{F+A+AB+Nonvotes}{N}$. In most states, a quorum constitutes the presence of a majority of the shares entitled to vote in person or by proxy ($Turnout > 50\%$), but some companies modify the default requirement in their charter documents.[16] Because Voting Analytics does not record the quorum requirement, we set it to 50% for all shareholder meetings.[17]

To determine whether a given proposal passes, we first check whether a quorum is met, then compare the official vote with the vote requirement and assign "Pass" to those proposals with an official vote above the vote requirement, and "Fail" otherwise. There are 50 cases in which the recorded outcome in Voting Analytics is "Fail" but our calculation yields "Pass" or in which the recorded outcome in Voting Analytics is "Pass" but our calculation yields "Fail." Because we want to minimize data errors, we hand collect information for these cases on the number of votes and voting base from 8-K filings following the shareholder vote. We are able to obtain reliable information for 30 cases, and the remaining 20 cases we treat as missing. Finally, there are 14 cases in which management recommends voting against its own proposal.[18] To ease the interpretation of results, we remove these cases from the analysis. Our final sample

[15] In director elections, which we do not consider here, there is also another category "votes withheld."

[16] Stock exchanges and state laws may also impose restrictions on the minimum quorum (e.g., 33.33% of the shares entitled to vote in Delaware).

[17] We also manually check that in a sample of proposals with close votes, less than 5% of proposals have a quorum requirement different from 50%.

[18] For example, management of Alaska Air Group brought up a proposal at the 2011 annual meeting to allow stockholders to act by written consent and recommended voting against the proposal. In 2010, a similar proposal brought up by shareholders was approved, and it appears that the board hoped that the revote would reduce the support for the proposal.

contains 26,981 unique proposals initiated by the management of 5,316 unique firms.

Because we are interested in the various techniques management can use to influence the outcome of a vote, including selective proposal withdrawals, we also separately study a sample of withdrawn management proposals. We define withdrawn proposals as those that have a recorded vote outcome in Voting Analytics of "Withdraw" or "Not Disclosed." For these proposals, it is not possible to calculate the official vote. We have 2,281 such proposals launched by 1,258 firms.

3.2. Summary statistics

Figure 2 shows that the number of management proposals increased substantially over the sample period (solid blue line). For example, in 2003 there were only 1,661 management proposals, as compared with 2,770 in 2015.[19] In contrast, the number of shareholder proposals submitted each year (dashed red line) remained relatively constant during the sample period.[20] The upward trend in the number of management proposals is also present for closely contested proposals (Figure 3). Further, it is evident from the figure that management wins the majority of closely contested proposals.

In Panel A of Table 1 we present the key summary statistics on management proposals. Out of 26,981 proposals in our sample, 6,573 proposals or 24.4% have the voting base defined by the shares outstanding, and these proposals have a lower average vote percentage in favor of the proposal of 74.4%. In contrast, the proposals with the voting base "F+A" or "F+A+AB" are supported, on average, by 86.8% of shareholders. Most proposals in our sample (93.8%) are decided using majority rule; i.e., they must receive more than 50% of the vote in order to pass. The remaining 6.2% must receive a supermajority vote (66.7% of the vote or higher).

[19] Since Voting Analytics covers Russell 3,000 firms for the period 2003–2013, the trend cannot be attributed solely to different sample composition over time.

[20] The number of shareholder proposals may decrease in the future because the recent amendments of Rule 14a-8 by the Securities Exchange Commission (SEC) make the submission and resubmission of shareholder proposals subject to more stringent requirements (Release No. 34-89964).

We also classify management proposals by agenda into five broad categories: compensation, governance, share issuance, strategic decisions, and other. Compensation proposals are mostly for the approval and modification of executive, employee, and director compensation plans, as well as for ratifying the executive compensation as part of the voluntary Say-on-Pay policies. Governance proposals relate to changes in firm governance, such as removal, addition, or modification of anti-takeover provisions, changes in the size of the board, or proxy access. Share issuance proposals cover the approval of issuance of common or preferred stock, equity-linked securities, conversion of shares, increases in authorized common stock, authorization of new classes of shares, and other related items. Finally, the strategic decisions category captures proposals that relate to mergers and acquisitions, reorganizations, liquidation, restructuring, spin-offs, and purchases or sales of assets. The three most common agenda items are voting on the firm's compensation plans, share issuance, and governance provisions. Notably, governance-related agenda items constitute only 11.7% of all agendas of management proposals, as compared with approximately half of shareholder proposals with similar agendas (Buchanan, Netter, and Yang (2015)).

We find that ISS issues a negative recommendation for 18.5% of all management proposals, indicating that it does not consider many management proposals to be beneficial. The average voter turnout is 87.6% of outstanding shares in our sample, which is similar to that documented by Bethel and Gillan (2002). We find that voter turnout exceeds 50% for 99.6% of all management proposals. In 8.8% of cases, there is a corresponding proposal to adjourn the meeting, which is useful should postponing a vote be necessary. The proposals to "Adjourn Meeting" are almost universally opposed by ISS because they may give the management an opportunity to game the system. We find that such proposals nevertheless pass in approximately half of the cases, so that for 3.8% of management proposals in our sample the management has an option to adjourn

the meeting to a later date. We also find that firms file the additional proxy documentation through DEFA14A forms for approximately 15.9% of annual shareholder meetings. Such filings often contain solicitation materials and additional information presented by the management about the merit of its proposals.

The average passage rate of management-sponsored proposals is high, at 97.0%. However, this number is substantially lower than the previously reported 98.5% by Maug and Rydqvist (2009) for the earlier period of 1994 to 2003, which may indicate that voting on management proposals became more contested. The average passage rate is also considerably lower for management proposals in which the voting base is all shares outstanding (91.7%), for proposals that require a supermajority (82.2%), and for proposals with governance-related agendas (89.3%).

In Appendix B, we also perform an analysis of the determinants of management proposals (see Table B.2). These results show that more proposals are launched when the stock return volatility is high and institutional ownership is low. Also, managers choose to bring up more proposals following good firm performance, perhaps because high realized returns help to shift the voting outcome in management's favor. For example, investors pay less attention to voting issues in firms that perform well (Iliev, Kalodimos, and Lowry (2021)), retail shareholders tend vote pro-management (Brav, Cain, and Zytnick (2022)), and ISS is more likely to issue a positive recommendation, which affects shareholder support (Iliev and Lowry (2015), Malenko and Shen (2016)).

In Panel B of Table 1 we present the statistics for 2,281 withdrawn management proposals, including their breakdown by agenda, voting base, and vote requirements. Approximately 9.3% of withdrawn proposals have a voting base of all shares outstanding, which is significantly lower than the fraction of these types of proposals in the overall sample. Notably, 45.9% of withdrawn proposals have agendas classified as "Other" (most of them classified as "Other Business"), which is more than ten times higher

than the incidence of these types of proposals in the general sample. Proposals with the agenda "Other Business"are frequently withdrawn simply because there is no other business to vote on at the meeting. Overall, from the summary statistics it appears that proposal withdrawals are non-random and that management is strategic with respect to which kind of proposals to withdraw before shareholder voting takes place.

4. Managerial influence on voting outcomes

In this section, we analyze whether firm management is able to influence the outcome of the vote on its proposals. Kahan and Rock (2008) provide a detailed overview of the complex shareholder voting process in the United States and discuss pathologies in the system that can create distortions in the reported vote outcomes. Importantly, a firm's management in the United States typically holds an advantage over other shareholders in its ability to affect the vote outcomes because it has access to the preliminary voting results (Kahan and Rock (2011), Gumbs, Hamblet, and Stortini (2013)).[21] This allows it to deploy targeted tactics after putting the proposal on the ballot. Consistent with prior economics literature, we define any strategic attempt to influence the outcome of a close vote as 'manipulation'.

There are several tools available to management to affect the outcome of the vote, such as changing the record date, selectively withdrawing proposals that receive low shareholder support and bringing them up later (perhaps in more favorable conditions or slightly modified), hiring proxy solicitation firms and extensively campaigning with the hope of swaying some shareholders,[22] soliciting additional votes from retail investors who tend to vote pro-management, postponing a vote on proposals that do not have sufficient support, and asking institutional investors with business ties to the firm to vote

[21] For example, Broadridge will customarily send out a daily vote report to the firm starting 15 days prior to the annual meeting and may provide information about which large investors have not yet voted (https://www.broadridge.com/resource/annual-meeting-handbook#story8).

[22] Commonly used proxy solicitation firms, such as Morrow & Co. LLC and Georgeson, Inc., charge a fee of $4.50 to $6.50 for each additional phone call made to a stockholder.

favorably on a proposal. There are also other decisions that can affect the vote outcome, such as how and when to deliver the proxy materials to registered owners, when to close the polls, and how to reconcile discrepancies in vote counts (e.g., overvoting).

4.1. Density of proposals around the threshold for passage

Before examining the specific mechanisms that management can use to influence voting outcomes, we turn to an analysis of the density of management proposals around the threshold for passage. If management launches its proposals in more favorable market conditions (which appears to be the case based on evidence in Table B.2), we should expect management proposals, on average, to be more likely to pass than not (e.g., as compared with shareholder proposals for which management cannot choose the timing or agenda). However, given that the meeting agenda is typically set weeks in advance of a vote (e.g., the average time between the record date and the shareholder meeting date is 53 days), it is unlikely that management has *precise* information on shareholder support for a proposal when it initially decides whether to bring it up.[23] Thus, if management does not influence the voting process once the proposal is on the ballot, we should expect to see a continuous density of proposals around the passage threshold.[24]

Figure 1 in the introduction shows that there is a sharp discontinuity in the density of management proposals around the passage threshold, with significantly more proposals just passing than just failing. It is also notable that the density of proposals is smooth at all other points of the distribution. Coupled with the fact that management recommends voting "For" on all proposals in our sample and thus has a clear incentive

[23]The fact that management sometimes withdraws its own proposals and even creates an option to adjourn a meeting also suggests that there is significant uncertainty about how shareholders will vote. Further, anecdotal evidence that hired proxy solicitation firms go to great lengths to determine how shareholders will vote by analyzing how they voted on similar issues in the past is also suggestive that precise information is difficult to come by at the time a proposal is initiated (see, "Computershare's Georgeson unit resolves U.S. fraud probe for $4.5 million," *Reuters*, November 30, 2017).

[24]Note that although discontinuity implies some influence, the reverse statement is not true. There are many ways of influencing voting that would not generate a discontinuity, such as, for example, buying additional shares by the manager for his or her personal portfolio ahead of record dates.

to manipulate only in one direction, this evidence indicates that management is able to influence the vote outcome around the passage threshold.

In Table 2, we report the size of the discontinuity for the full sample and for proposals with different agendas and provide the related statistics for tests based on McCrary (2008).[25] Table B.3 in the Appendix reports similar statistics based on a nonparametric density estimator by Cattaneo, Jansson, and Ma (2020), which provides an automatic correction for the boundary bias and does not require any data pre-binning or tuning parameters (other than bandwidth) to estimate the local densities.

In all samples, there is systematic sorting of proposals around the cutoff point, with units non-randomly selecting into the group of proposals that pass by a small margin. The size of the discontinuity based on the test statistic by McCrary (2008), which is calculated as the logarithm of the ratio of the fitted densities on the right and the left of the passage threshold, implies that there are approximately $3.5(= e^{1.245})$ times as many proposals that pass by a small margin than proposals that fail by a small margin. The magnitude of the discontinuity is significantly larger for special meetings than for annual meetings. The result that managers tend to influence the outcome of proposals that are brought at special meetings is consistent with the empirical results in Kalay, Karakaş, and Pant (2014), who estimate that the value of a vote is higher in special meetings than in annual meetings.

In terms of different proposal agendas, the size of the discontinuity is largest for proposals related to share issuance, followed by proposals with executive and director compensation agendas, and those related to strategic firm decisions, including M&As. In contrast, we observe the lowest magnitude of discontinuity for proposals that target removal of anti-takeover provisions, such as declassifying the corporate board or reducing the supermajority voting requirement. This may be attributed to a lower incentive

[25] Note that because the discontinuity estimate is measured as log difference (i.e., the ratio of densities), it does not always coincide with a greater absolute difference in the probability density function in the figures.

of managers to pass such proposals, as at least some of them are launched because of pressure from shareholders.

4.2. Covariate balance tests

To further assess the likelihood of managerial influence on vote outcomes, we examine whether the baseline covariates are balanced. If units are randomized around the proposal passage threshold, then we should not expect proposals with certain characteristics to appear more or less frequently on either side of the passage threshold (other than by mere chance). Further, the covariate balance tests help us uncover whether greater managerial influence on voting outcomes is associated with variables related to lower monitoring and lack of investor attention, lower external pressure, and low-quality proposals.

The results of the covariate balance tests are reported in Table 3. For convenience, we also present a series of corresponding figures for proposal density around the passage threshold, in which we sort proposals by voting recommendation by ISS, institutional ownership, analyst coverage, board independence, firm size, and shareholder activism (Figures 4–9). The data reject the assumption of randomization of proposals at the boundary. For example, we find that just above the passage threshold there are relatively more proposals made by smaller firms, as well as proposals that receive a negative ISS recommendation. In contrast, there are relatively fewer proposals just above the passage threshold that are made by firms with larger analyst coverage, more independent boards, and higher institutional ownership, and by firms that were a target of a shareholder proposal in the previous year. Overall, this evidence indicates that the distribution of proposals around the passage threshold is non-random, which suggests that management behaves strategically in trying to pass certain types of proposals.

Our finding that proposals that receive a negative recommendation by the proxy advisor are more likely to get pushed above the passage threshold by the firm's man-

agement suggests that managerial influence on the voting process may be not completely benign and may not always be in the best interest of shareholders. This finding is reinforced by the fact that strategic behavior by management is less pronounced when external pressure or monitoring is high.

4.3. Mechanisms

An important question is how management is able to affect the voting outcomes so precisely. While there are many potential mechanisms, here we analyze two: adjourning a meeting and providing additional solicitation material to shareholders.[26]

4.3.1. Meeting adjournment

An interesting feature of shareholder voting is that in some circumstances the firm's management can choose to adjourn a meeting to a later date. There are sometimes perfectly good reasons for adjourning the meeting, such as not meeting the quorum requirement or giving more time to shareholders to gather information about the prospective merger. What is perhaps peculiar is that a meeting can be adjourned with respect to some proposals and not others. For example, management can immediately pass the proposals that receive shareholder approval on the meeting date, and adjourn the meeting with respect to other proposals that do not have enough shareholder support.[27]

In order for meeting adjournment to be legal, the firm's management has to put up a separate proposal for adjournment, and this proposal must be approved by a majority of shareholders. Since our data allow us to observe the presence of "Adjourn Meeting" proposals on the shareholder meeting agenda, we investigate whether firms with such

[26] We consider legal mechanisms, because they are more readily observable to researchers. If there were any illegal manipulation taking place, it is unlikely that the involved parties would want to leave any incriminating evidence.

[27] For example, the filing by CEL-SCI Corp. says "The adoption of CEL-SCI's 2013 Non-Qualified Stock Option Plan, which provides that up to 20,000,000 shares of common stock may be issued upon the exercise of options granted pursuant to the plan, did not receive the required number of votes. As a result, the annual shareholders' meeting was adjourned to July 25, 2013, allowing stockholders additional time to vote on the adoption of the 2013 Non-Qualified Plan."

proposals show a greater discontinuity in the approval of other management proposals. More specifically, for all management proposals that are being voted on at a particular shareholder meeting, we create a dummy variable equal to one if there is an "Adjourn Meeting" proposal on the agenda, and set it to zero otherwise. We then create a similar dummy that turns on only if there is an "Adjourn Meeting" proposal on the agenda that is approved by shareholders. Finally, because there may be good reasons to put an "Adjourn Meeting" proposal in place when shareholders are to vote on a merger (as such proposals typically have a base of all shares outstanding and often require a larger threshold for passage), we separately examine meeting adjournment only for annual shareholder meetings.

The results are reported in Table 4. Notably, the discontinuity in the density of management proposals around the passage threshold is almost twice as large when there is an accompanying proposal to "Adjourn Meeting" than in the sample of meetings that cannot be adjourned to a later date. The difference in proposal density in the two samples is also significantly different from zero at the 5% level. Further, this difference becomes even more pronounced if we consider only meetings in which an "Adjourn Meeting" proposal was passed or only annual meetings. Specifically, the discontinuity of 3.477 implies that there are approximately 32 ($= e^{3.477}$) times as many management proposals that pass by a small margin than proposals that fail by a small margin when there is a passed proposal to adjourn the meeting. Figure 10 also shows this last set of results graphically. Overall, it appears that meeting adjournment and postponement of a vote can explain some density discontinuity around the passage threshold.

4.3.2. Solicitation material

Another way in which management can affect the voting outcome in its favor is selective campaigning for proposals that are closely contested. For example, management can employ the services of a professional proxy solicitation firm, and such firm may then

contact the voting shareholders. The expected costs of such solicitation are sometimes voluntarily disclosed in the firm's proxy statements and are paid out of a corporate budget. In many cases, the firms explicitly mention in their filings that they are going to spend more on solicitation if the vote on a proposal becomes closely contested. Alternatively, management can send the additional correspondence about its proposals directly to the shareholders, in which case an additional definitive document DEFA14A has to be filed with the SEC. We leverage this regulatory requirement and gather information on all DEFA14A forms filed by firms in our sample after the proxy filing date and not more than 60 days before the shareholder meeting.[28] Figure 11 presents the graphical evidence on the density of proposals around the passage threshold for firms that file DEFA14A forms before the shareholder meeting and for those that do not. The results of a McCrary (2008) manipulation test in Table 4 also reveal that there is indeed a significantly larger discontinuity in proposal density when management reaches out to its shareholders with additional information.[29] Nevertheless, we observe that the discontinuity does not disappear when DEFA14A filing is not used and there is no meeting adjournment. Thus our results imply that management has a potentially larger arsenal of tools to manage the meeting outcome.

4.4. Counterfactual density function estimation

We next evaluate the magnitude of managerial influence on the voting process in the full sample by estimating how many proposals actually pass relative to a counterfactual

[28] Our results are similar if we use 30 days instead of 60 days before the meeting as a cutoff. We exclude forms that are filed on the same day as the original proxy statement because these forms are often used to correct an error in the original proxy statement or to inform the shareholders about the proxy dissemination method.

[29] For proposals falling within a 1% margin of the passage threshold, we have read the related DEFA forms and classified reasons for their filing (multiple reasons can be associated with one form). We find that 29% of DEFA forms reiterate the arguments in favor of a contested proposal, 35% clarify proposal details or furnish new information about proposal merits, and 40% urge investors to vote, often specifically targeting shareholders who have not yet voted or employees with vested stock. Interestingly, we find that in 10% of DEFA forms management actually agrees to small proposal modifications to make it more attractive to shareholders (e.g., reducing the number of issued shares, placing additional restrictions on vesting of stock-based grants, or committing to repurchase shares to minimize dilution from stock-based compensation plans).

smooth distribution. Specifically, we follow the bunching method developed by Kleven and Waseem (2013) and summarized in Kleven (2016). In general, bunching design applies when the assignment variable is a direct choice of agents who face a jump in incentives at the specific threshold. As applied to our setting, the underlying assumption is the smoothness of the counterfactual distribution of the vote tally around the passing vote requirement (i.e., the distribution has to be smooth in the absence of any selective campaigning, manipulation, or other actions taken by management to affect the vote outcome).[30]

We fit a flexible polynomial to the observed distribution outside the area around the threshold. In particular, we first group proposals by the official vote tally in 1% bins indexed by i (e.g., bin 1 refers to proposals with the vote percentage from 0% to 0.99%, bin 2 to those from 1% to 1.99%, etc.). Using the whole sample, we then estimate the following regressions model

$$n_i = \sum_{j=0}^{p} \beta_j z_i^j + \sum_{j=z_-}^{z_+} \gamma_j 1_{z_i=j} + \varepsilon_i, \tag{1}$$

where z_i are bin values, n_i is the number of proposals in bin i, p is the order of the polynomial (we use $p = 5$ and check the sensitivity of our estimates for other values of p from 3 to 7), and $[z_-, z_+]$ refers to the excluded area around the vote requirement. In the base estimation, we exclude area in the range -10% to +10% of the vote requirement (e.g., 40% to 60% if vote requirement is 50%).[31] To generate the counterfactual distribution, we then calculate the fitted values from equation (1), but omit the second term with indicator variables (i.e., $\widehat{n}_i = \sum_{j=0}^{p} \widehat{\beta}_j z_i^j$). Finally, we obtain the standard errors for

[30] As discussed in Kleven (2016), the two common threats to applying the bunching designs are: (1) the use of reference points by agents; and (2) the possibility that other policies change at the same threshold. Both of these situations seem unlikely in our setting. For example, the use of reference points by shareholders would imply that whenever shareholders see a closely contested vote, they for behavioral or other reasons prefer to vote with management. This seems unlikely, given that many investors recall their shares around record dates with the goal to vote against management (Aggarwal, Saffi, and Sturgess (2015)). Further, shareholders cannot always vote with management around the 50% threshold simply because they lack information on which proposals are very close to 50% support.

[31] We check the robustness of our results to -5% to +5% across polynomials from 3 to 7.

estimates using a bootstrap procedure, in which we generate 500 distributions of the vote percentage by random resampling of the residuals from equation (1).

Figure 12 shows the counterfactual proposal distribution, and Table 5 reports the results of the estimation along with the degree of polynomials used and the excluded range. In the figure, there is clearly visible excess bunching and a missing mass (hole) around the passage threshold. The excess bunching is estimated as the difference between the observed and counterfactual bin counts in the excluded range above the passage threshold, $\Sigma_0^{z+} (n_i - \widehat{n}_i)$. Likewise, missing mass is the difference between the observed and counterfactual bin counts in the excluded range below the passage threshold, $-\Sigma_{z-}^0 (n_i - \widehat{n}_i)$.

It is notable that, outside of the excluded range, the counterfactual density function fits the actual distribution quite well, indicating that the estimation of the counterfactual density is reasonable. In the excluded range, there are approximately 266 bunching proposals (10.6%) and 379 missing proposals (15.2%) when we use the 5th degree polynomial to fit the data and the excluded range of (-10%, +10%) around the passage threshold. The percentage of affected proposals becomes higher (13.8% bunching and 20.7% missing mass) if we focus on the narrower excluded range of (-5%,+5%).

Overall, our evidence indicates that management is able to influence the vote outcome on a significant fraction of proposals around the threshold. Without management interference in the voting process, many passed proposals in the closely contested range would have failed. The observed difference between missing mass and excess bunching can be attributed to proposal withdrawals by management (note, however, that this difference is not statistically significant as can be seen from the last two columns of the table). Also, the presence of significant bunching mass suggests that withdrawals alone cannot fully explain the density discontinuity of management proposals.

Of course, it is probably more difficult for management to pass those proposals

that are further away from the passage threshold. We therefore also estimate the fraction of proposals with altered outcome among those proposals that were going to fail marginally. To do so, we calculate the ratio of the number of proposals that marginally lost to the number of proposals that should have lost if there were no managerial influence on the voting process. Specifically, we calculate the ratio $(C - L)/C$, where C is the value of the counterfactual distribution at the passage threshold, and L is the value of the actual density just to the left of the threshold. We find that among marginally failing proposals approximately 64.5% have their outcome altered with the 95% confidence interval of (52.1%, 75.9%). In Table B.4 of the appendix, we also report an alternative estimate, where instead of the actual density on the left, we take the fitted value (the point where the green line intersects the passage threshold in Figure 12). This gives us an estimate of 62.0% of proposals with altered outcome among marginal fails. Table B.4 also shows how these estimates vary in different subsamples. For example, we observe that the fraction of proposals with altered outcome is significantly higher for firms with low institutional ownership than for firms with high institutional ownership (76.1% vs. 32.8%), potentially suggesting that lack of monitoring from institutions makes it easier for management to change the voting outcomes in its favor.

4.5. Shareholder proposals

One clear way in which management can affect the outcome of the vote is to selectively withdraw proposals that are headed for a defeat, which gives management an opportunity to bring them up for a vote at a later date. To understand whether withdrawals can fully explain the discontinuity around the passage threshold, we compare management and shareholder proposals. Since management cannot withdraw shareholder proposals, but may still affect the voting outcome by other means such as selective campaigning, a discontinuity in the density of shareholder proposals would indicate that withdrawals cannot be the sole mechanism through which management affects the vote outcome.

We therefore use information in ISS Voting Analytics on all shareholder-sponsored proposals with non-missing vote information and the passage threshold requirements over the period 2003 to 2015. We find 8,048 such shareholder proposals and estimate the manipulation test statistics of McCrary (2008) around the passage threshold. The results are reported in Table 6. Consistent with evidence in Bach and Metzger (2019) for a sample of 3,822 governance-related shareholder proposals, we find that there is a significant discontinuity in the density of shareholder proposals, with substantially fewer shareholder proposals passing by a small margin, than failing. One implication of these results is that withdrawing a proposal is not the only way management can affect the vote outcome.

At the same time, we observe that the discontinuity in density is more than three times larger for management proposals. In part, this may be attributed to an additional lever management can use to affect the outcome of its proposals—i.e., withdrawals. But it may also stem from other differences between the two types of proposals. Since shareholder proposals are advisory, management may have a weaker incentive to affect the outcome of such proposals. The incentive to influence voting outcomes may also differ because management and shareholder proposals target different issues. Our results for management proposals in Table 2 show that the type of issue matters significantly for the degree of strategic behavior by management. To see whether this is also the case for shareholder proposals, we split them into three broad categories: (i) governance/proxy access; (ii) compensation; and (iii) social, environmental, political, and other similar types of proposals. We single out governance-related shareholder proposals because they are typically viewed as more important by the existing literature. Indeed, we find that the density discontinuity is only present for shareholder proposals that target governance issues, but not for other types of shareholder proposals.

The fact that there is no discontinuity in the density of social and environmental

types of proposals is interesting in light of theoretical results by Broccardo, Hart, and Zingales (2022), who find that, in absence of vote manipulation, shareholder voice can achieve socially desirable outcomes if the majority of shareholders are even slightly socially responsible. Thus, our results suggest that while "voice" may be an efficient mechanism to implement social and environmental changes in firms, the tradeoffs between "voice" and "exit" in implementing corporate governance changes need to be reconsidered in the model that allows for managerial influence on the voting process.

5. Firm value implications

From a policy perspective, an important question is whether the ability of management to influence the voting outcome creates or destroys shareholder value. For example, if management is better informed about the costs and benefits of a proposal, or if shareholders are passive and their approval of a proposal is a mere formality needed to satisfy a regulatory requirement, managerial influence on vote outcomes can be value-creating. However, it is also possible that management proposals involve self-dealing, are structured to expropriate certain groups of shareholders, or increase board entrenchment, in which case managerial influence on vote outcomes can be value-destroying.

To understand costs and benefits of managerial influence on vote outcomes, we build a simple theoretical model that captures these tradeoffs. The model setup and theoretical results are provided in Appendix A; here we briefly outline the key elements of the model. We start with the premise that the firm manager is better informed about the value of the potential project than are her shareholders, but the manager's interests are only partly aligned with those of her shareholders. The manager can first decide which projects to propose for a shareholder vote (i.e., she sees a bigger pool of projects than are eventually presented for a shareholder vote). After putting a particular proposal on the ballot and observing the shareholders' inclination to vote

in favor of this proposal, the manager can privately decide whether to influence the vote outcome. We consider two alternative settings, one in which managerial influence on vote outcomes is value-creating for shareholders and another one in which it is value-destroying, and derive the market reactions to proposal passage and failure in each of these cases. Importantly, the model shows that when managerial influence on vote outcomes is value-destroying we should expect to see a positive market reaction to proposal failure and a negative market reaction to proposal passage. The opposite market reactions should be observed when managerial influence is value-creating (see Propositions 2 and 4 in Appendix A).

To analyze the firm value implications of management proposals, we then turn to the data and focus on the returns to narrow passage or failure of these proposals. We keep only meeting dates with one close proposal since the interpretation of return reactions with multiple close proposals is ambiguous. Passage or failure of a proposal by a wide margin should have been anticipated, and those outcomes are excluded from the analysis. Targeted managerial influence on vote outcomes also affects the anticipated probability of a proposal's passage. Nevertheless, when a proposal actually passes, this leads to the updating of the probability of passing in only one direction–upward. Similarly, when a proposal fails, it represents an update of the probability of passing in a downward direction. Therefore, if the voting outcome is not perfectly anticipated by the market, we expect prices to react. While the extent of the price reaction may be muted owing to partial anticipation, the direction of the price reaction is informative.

In Table 7 we present our results for the cumulative abnormal stock returns (CARs) around a seven-day event window (-1, +5) centered on the shareholder meeting date. We use a seven-day window because trading volume tends to remain elevated for several days following shareholder meetings (Li, Maug, and Schwartz-Ziv (2021)). The CARs are calculated from both the Fama-French three-factor model and the Carhart four-

factor model. We obtain similar qualitative results for the 1% and 2% bands around the threshold. A narrow failure of a management proposal is associated with a significant positive abnormal return (ranging from 2.8% to 5.3%, depending on specification), whereas a narrow passage is associated with a small negative return (ranging from -0.8% to -1.3%). The small market reaction to proposal passage is likely to be attributed to market expectations. Unconditionally, a close proposal has a high probability of passing and therefore actual passage is not a big surprise.[32] The difference in average market reactions to narrow passage and narrow failure is both economically and statistically significant.

Our results have the following interpretation. When a proposal fails narrowly and the market reacts positively to such an event, it indicates that the manipulation techniques of the managers were not perfect, and the market reacts to the failure to manipulate. When managerial influence on vote outcomes is value-destroying, failure to manipulate a bad proposal represents good news.

One potential concern for the interpretation of the average positive market reaction to a narrow failure of management proposals is that management may not attempt to influence votes on some of its proposals. When the pool of narrowly lost proposals contains both proposals affected by managerial influence and those that are not, it is possible that the positive reaction is coming from the failure of unaffected proposals, whereas the managerial influence on the voting process still creates value and allows management to pass good proposals. To address this specific concern, we conduct an additional empirical test. Specifically, in Table 8 we regress the stock market reaction to a narrow passage or failure of a management proposal during the seven-day period around the shareholder meeting date, *CAR(-1,+5)*, on the indicator variable of proposal failure, the indicator variable of likely manipulation by management, and

[32] Moreover, rational expectations dictate that the average reaction across all management proposals should be zero. This is indeed the case in our data.

the interaction between the two variables. The idea is that for a sample of closely contested unmanipulated proposals the passage or failure should be close to a random draw, whereas for manipulated proposals it may be partly predictable. Specifically, we use all explanatory variables from Table 3 to predict proposal passage for close proposals and set the indicator variable of likely manipulation equal to one if the fitted probability of proposal passage is greater than the sample median and zero otherwise.

The results reported in Table 8 show that the positive reaction to a narrow proposal failure is driven by those proposals that have a high likelihood of being influenced by management. Specifically, a loss of a close proposal that was likely affected by managerial influence is associated with a positive seven-day abnormal return of $6.2\% - 6.9\%$, whereas the loss of a proposal that was likely not affected by managerial influence is associated with an insignificant positive return of $0.2\% - 0.7\%$. Of course, it is reasonable to expect these results given that the surprise of a proposal failure is greater for a proposal that was influenced and had a high likelihood of passage prior to the meeting. Nevertheless, these results demonstrate that the positive reaction to a proposal failure cannot be coming from close proposals unaffected by managerial influence that pass or fail randomly.

6. Conclusion

In this paper, we analyze whether the voting process on management proposals is biased against shareholders. We find evidence of targeted managerial influence on vote outcomes, particularly for firms with low institutional ownership and less independent boards and for proposals opposed by ISS. Based on bunching methods and an examination of proposal agendas, we conclude that the gap in proposal density around the threshold for passage cannot be explained by the withdrawal of unsuccessful proposals. Instead, our analysis uncovers new mechanisms that executives use to get their propos-

als passed, such as adjourning a meeting to a later date and selective campaigning.

The evidence on market reactions to narrow proposal passage and failure, combined with the results of a theoretical model, imply that managerial influence on the voting process is value-destroying. Overall, our results suggest that the outcomes of shareholder meetings may not always be viewed as reliable expressions of the general will by the shareholders and potentially give more prominence to other corporate governance mechanisms.

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Figure 2. Number of non-routine management proposals launched over time. The figure shows the number of non-routine management proposals (solid blue line) and the number of shareholder proposals (dashed red line) launched between 2003 and 2015.

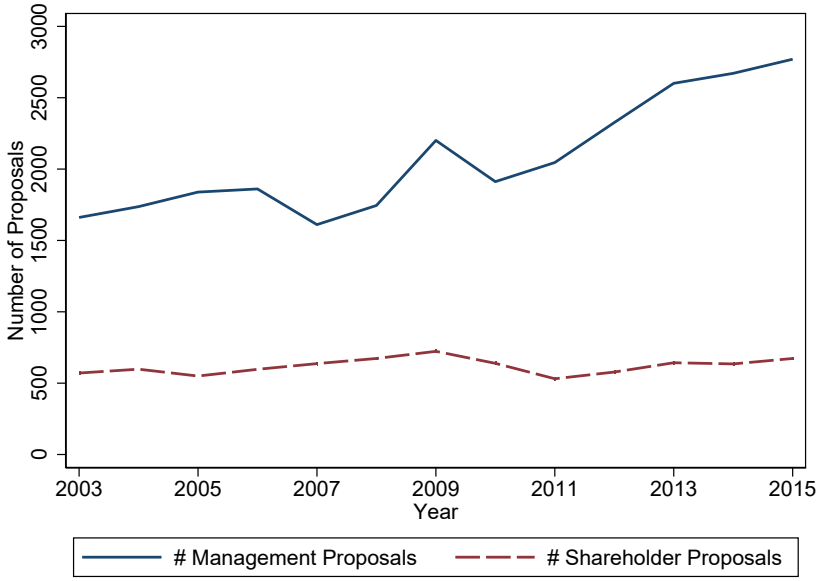


Figure 3. Number of closely contested management proposals launched and won over time. The figure shows the number of closely contested management proposals, i.e., passing or failing by less than a 10% margin, that are launched by management (solid blue line) and won by management (dashed blue line) between 2003 and 2015.

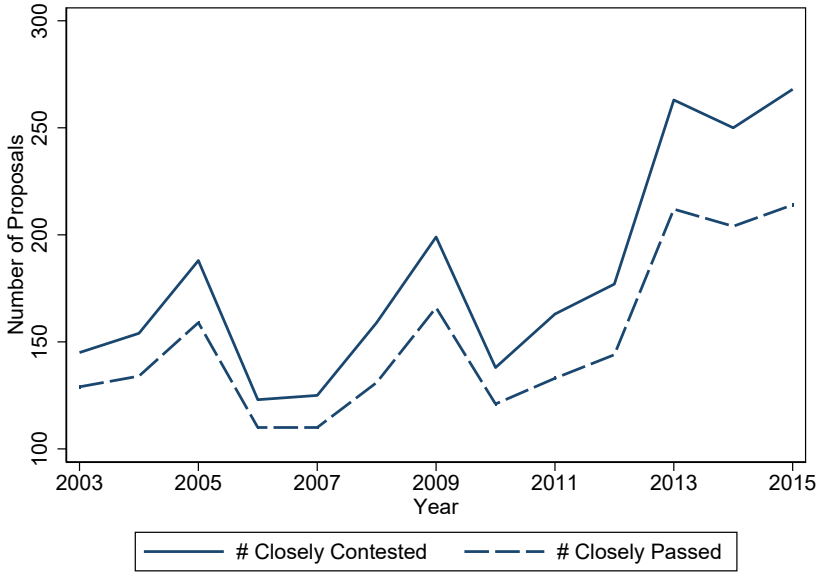
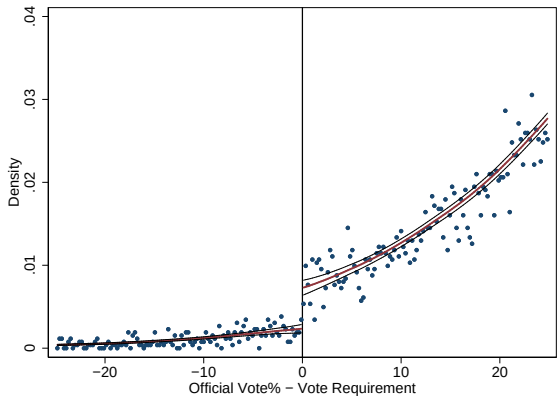
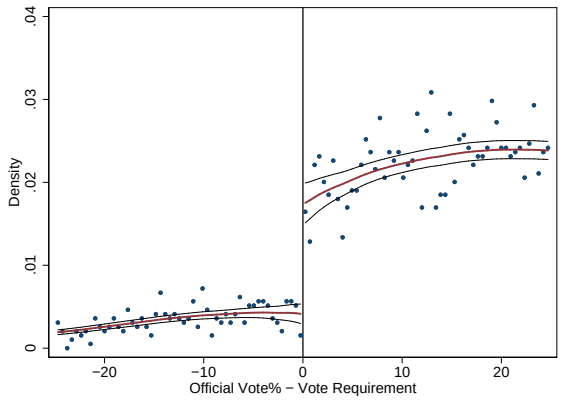


Figure 4. ISS recommendation. This figure plots the density of management proposals around the passage threshold, where proposals are sorted by ISS recommendation. Blue dots represent the proposal density. Solid red line displays fitted flexible polynomials on each side of the passage threshold. Solid black lines provide the corresponding confidence intervals.

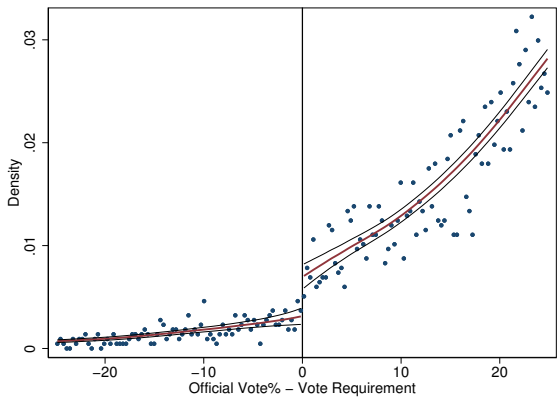


Panel A: ISS "For" recommendation

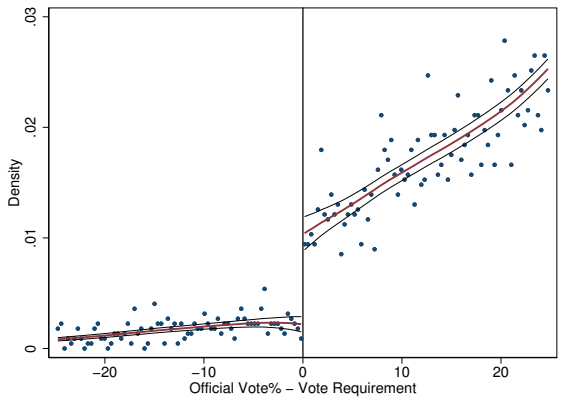


Panel B: ISS "Against" recommendation

Figure 5. Institutional ownership. This figure plots the density of management proposals around the passage threshold, where proposals are sorted by institutional ownership. Blue dots represent the proposal density. Solid red line displays fitted flexible polynomials on each side of the passage threshold. Solid black lines provide the corresponding confidence intervals.

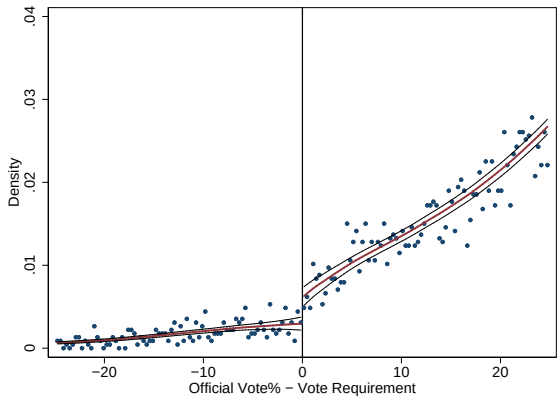


Panel A: High institutional ownership

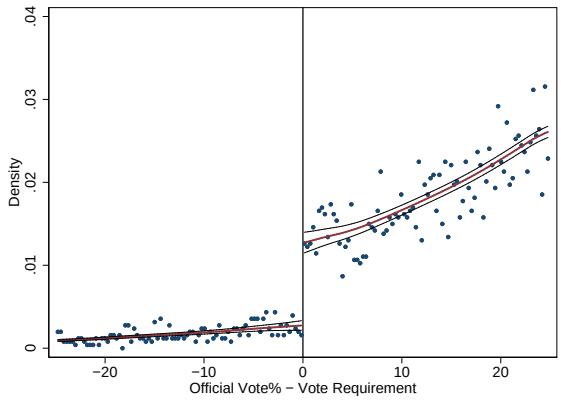


Panel B: Low institutional ownership

Figure 6. Analyst coverage. This figure plots the density of management proposals around the passage threshold, where proposals are sorted by analyst coverage. Blue dots represent the proposal density. Solid red line displays fitted flexible polynomials on each side of the passage threshold. Solid black lines provide the corresponding confidence intervals.

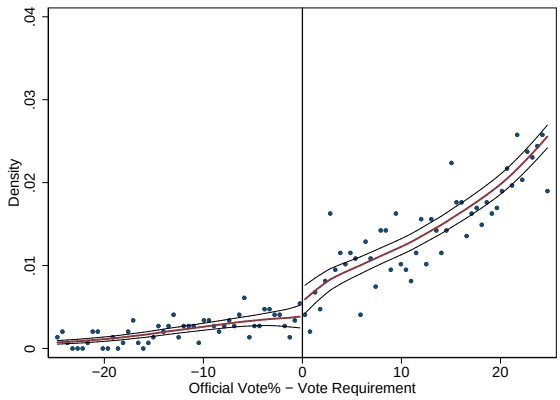


Panel A: Many analysts

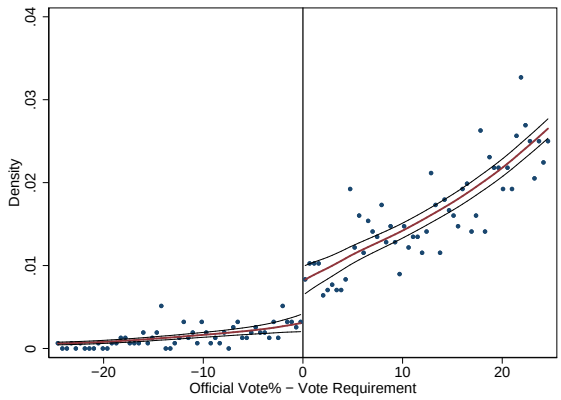


Panel B: Few analysts

Figure 7. Board independence. This figure plots the density of management proposals around the passage threshold, where proposals are sorted by board independence. Blue dots represent the proposal density. Solid red line displays fitted flexible polynomials on each side of the passage threshold. Solid black lines provide the corresponding confidence intervals.

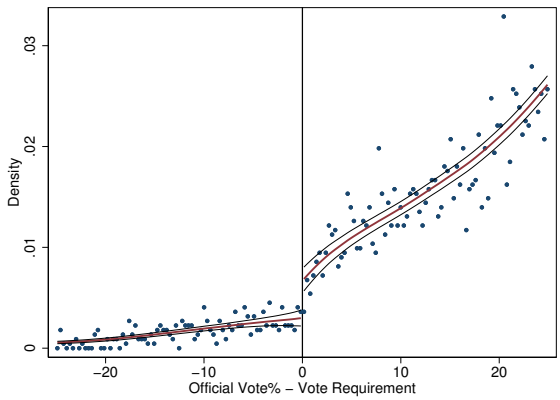


Panel A: High board independence

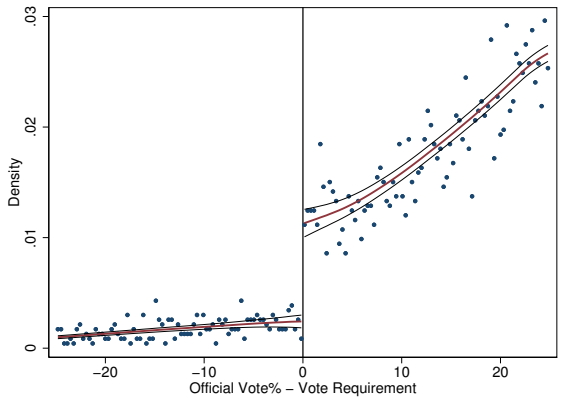


Panel B: Low board independence

Figure 8. Firm size. This figure plots the density of management proposals around the passage threshold, where proposals are sorted by firm size. Blue dots represent the proposal density. Solid red line displays fitted flexible polynomials on each side of the passage threshold. Solid black lines provide the corresponding confidence intervals.

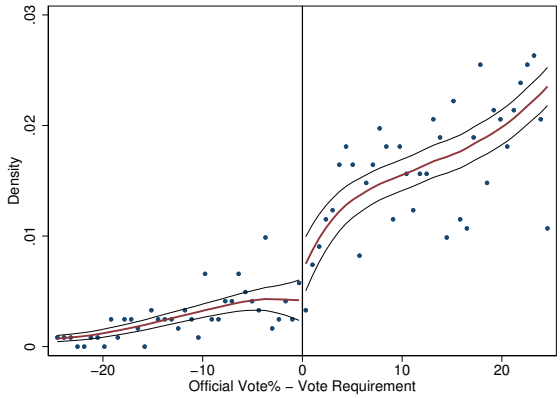


Panel A: Large firm size

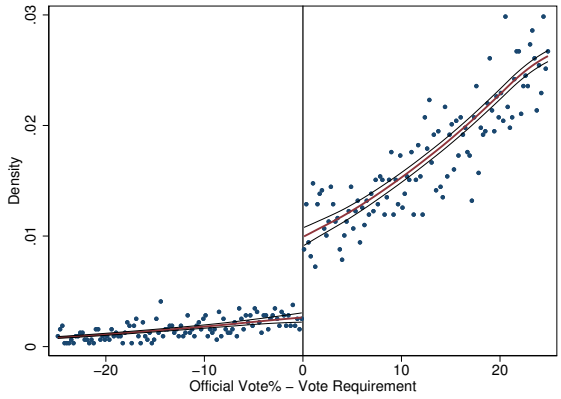


Panel B: Small firm size

Figure 9. Shareholder activism. This figure plots the density of management proposals around the passage threshold, where proposals are sorted by the presence of shareholder proposals. Blue dots represent the proposal density. Solid red line displays fitted flexible polynomials on each side of the passage threshold. Solid black lines provide the corresponding confidence intervals.

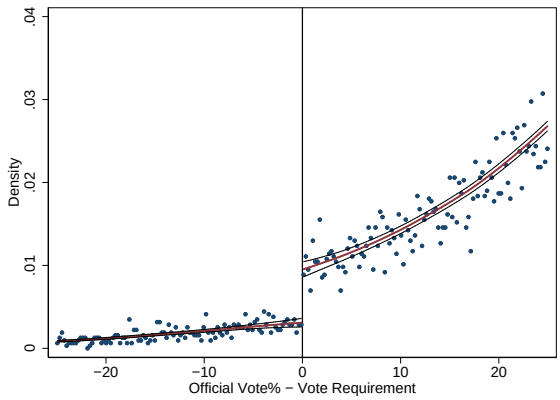


Panel A: Shareholder proposals

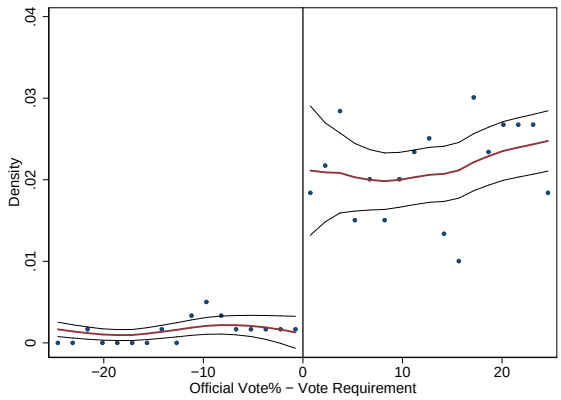


Panel B: No shareholder proposals

Figure 10. Mechanisms: Annual meeting adjournment. This figure plots the density of management proposals around the passage threshold, where proposals are sorted by whether there is an "Adjourn Meeting" proposal on the annual shareholder meeting. Blue dots represent the proposal density. Solid red line displays fitted flexible polynomials on each side of the passage threshold. Solid black lines provide the corresponding confidence intervals.

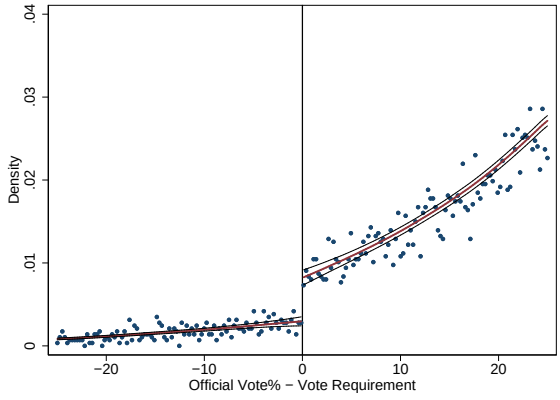


Panel A: No "Adjourn Meeting"

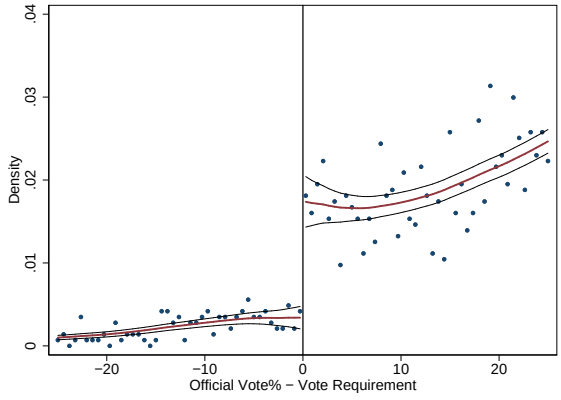


Panel B: "Adjourn Meeting"

Figure 11. Mechanisms: Firm providing additional materials through DEFA14A. This figure plots the density of management proposals around the passage threshold, where proposals are sorted by whether a firm files DEFA14A forms after the proxy filing date and not more than 60 days before the shareholder meeting. Blue dots represent the proposal density. Solid red line displays fitted flexible polynomials on each side of the passage threshold. Solid black lines provide the corresponding confidence intervals.



Panel A: No DEFA14A filed



Panel B: DEFA14A filed

Figure 12. Counterfactual density of management proposals. This figure plots the counterfactual proposal density. Blue dots represent the actual management proposal density in each 1% bin. Red solid line displays the counterfactual proposal density using the bunching method of Kleven and Waseem (2013). Green solid line shows the fitted flexible polynomial to the probability density function on the left of the passage threshold.

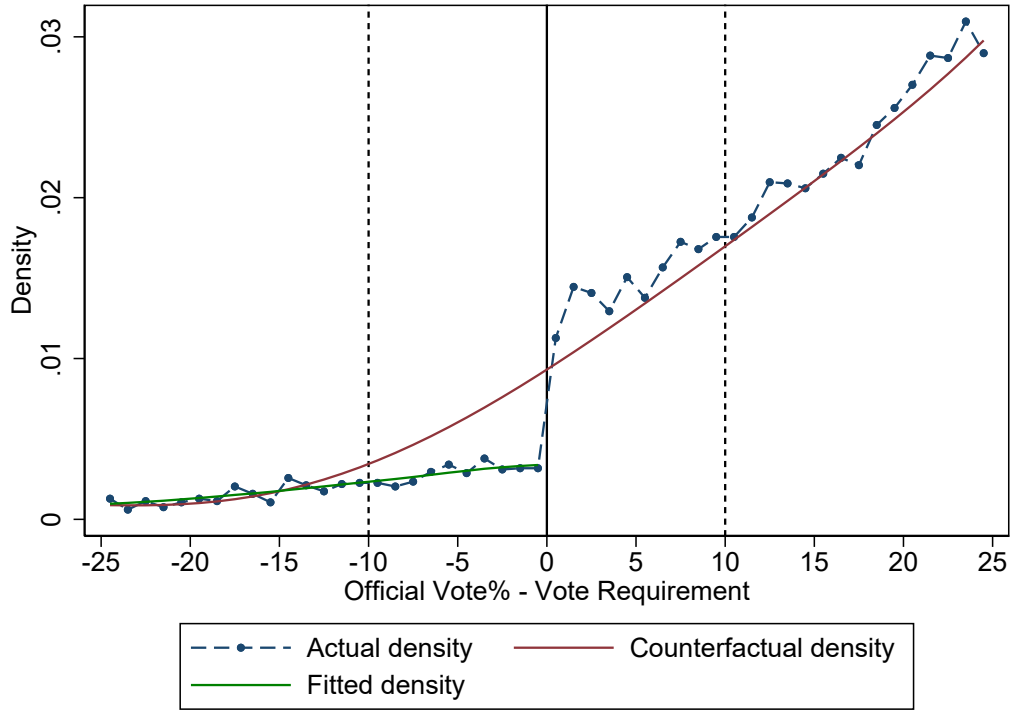


Table 1. Summary statistics for management proposals

Panel A reports summary statistics for 26,981 management proposals that were initiated during the period 2003–2015 and have a vote outcome of "Pass" or "Fail" and non-missing information on the number of votes. Panel B reports summary statistics for 2,281 management proposals with a recorded vote outcome of "Withdraw" or "Not Disclosed" during the period 2003–2015. All variable definitions are provided in Appendix B.

Panel A: Proposals with outcome (N=26,981)	*Obs.*	*Mean*	*Std.Dev.*
Vote percentage in favor (*Vote%*)	26,981	83.8	17.5
Vote base: Shares outstanding	6,573	74.4	24.9
Vote base: "F+A" or "F+A+AB"	20,408	86.8	12.8
Vote requirement: Majority	25,304	83.9	16.1
Vote requirement: Supermajority	1,677	81.4	31.3
Meeting type: Annual	23,934	84.0	15.8
Meeting type: Special	3,047	81.8	27.3
Agenda: Compensation	17,464	85.7	12.9
Employee compensation	13,900	84.3	13.3
Executive/director compensation	3,564	90.9	9.8
Agenda: Share issuance	3,805	78.4	25.9
Agenda: Governance	3,170	82.3	24.2
ATP removal	1,277	83.6	23.7
Other than ATP removal	1,893	81.4	24.5
Agenda: Strategic decisions	1,428	82.0	15.1
M&As	1,305	82.4	15.0
Restructuring, asset sales/purchases, spinoffs, etc.	123	78.5	15.3
Agenda: Other	1,114	79.0	18.2
ISS "Against" recommendation	26,981	18.5	38.8
Voter turnout (*Turnout%*)	26,950	87.6	51.8
Quorum is established (*Turnout%*>50%)	26,950	99.6	0.1
Adjourn meeting	26,981	8.8	28.3
Passed adjourn meeting	26,981	3.8	19.1
Adjourn annual meeting	23,934	2.5	15.6
DEFA14A after proxy date	23,934	15.9	36.6

Panel A (Continued)	*Obs.*	*Mean*	*Std.Dev.*
Passage rate (*Pass%*)	26,981	97.0	17.1
Base: Shares outstanding	6,573	91.7	27.5
Base: "F+A" or "F+A+AB"	20,408	98.7	11.4
Vote requirement: Majority	25,304	98.0	14.1
Vote requirement: Supermajority	1,677	82.2	38.2
Meeting type: Annual	23,934	96.9	17.5
Meeting type: Special	3,047	98.0	14.0
Agenda: Compensation	17,464	98.7	11.2
Agenda: Share issuance	3,805	95.9	19.8
Agenda: Governance	3,170	89.3	30.9
Agenda: Strategic decisions	1,428	99.0	9.9
Agenda: Other	1,114	92.5	26.4

Panel B: Withdrawn proposals (N=2,281)	*Obs.*	*% Withdrawn*	*% Launched*
Vote outcome: "Withdraw"	576	25.3	2.0
Vote outcome: "Not disclosed"	1,705	74.8	5.8
Base: Shares outstanding	213	9.3	3.1
Base: "F+A" or "F+A+AB"	2,068	90.7	9.2
Vote requirement: Majority	1,095	48.0	4.1
Vote requirement: Supermajority	39	1.7	2.3
Meeting type: Annual	1,737	76.2	6.8
Meeting type: Special	544	23.9	15.1
Agenda: Compensation	444	19.5	2.5
Agenda: Share issuance	208	9.1	5.2
Agenda: Governance	345	15.1	9.8
Agenda: Strategic decisions	237	10.4	14.2
Agenda: Other	1,047	45.9	48.5

Table 2. Density of management proposals around the passage threshold

The table shows the results of manipulation tests based on the discontinuity in the density of management proposals around the passage threshold for different sub-samples of data. In column 2, we report the density discontinuity estimate based on the estimation method by McCrary (2008), which is calculated as the logarithm of the ratio of the fitted proposal densities on the right and on the left of the passage threshold; the corresponding z-statistics for the difference of the discontinuity from zero are provided in column 3. The last column provides z-statistic for the difference in discontinuities in two samples.

	Discontinuity	z-stat	*Difference b/w groups* (z-stat)
All proposals	1.245	12.65	
Meeting type:			
Special meeting	1.931	5.36	
Annual meeting	1.173	11.31	Special - Annual (2.02)
Agenda:			
Compensation	1.075	6.24	
Executive compensation	1.662	2.11	
Employee compensation	1.018	5.91	Executive - Employee (0.80)
Share issuance	1.846	8.73	
Governance	0.977	6.33	
ATP removal	0.727	3.82	
Other than ATP removal	1.396	5.29	ATP Removal - Other (-2.06)
Strategic decisions	1.625	2.05	

Table 3. Covariate balance tests

The table reports the results of the covariate balance tests around the proposal passage threshold. All variable definitions are provided in Appendix B. Columns 2-3 and 4-5 are for observations, for which the difference between the official vote percentage and the vote requirement is between (-5%,+5%) and (-10%,+10%), respectively.

	(-5%, +5%)		(-10%, +10%)	
	Discontinuity	p-value	Discontinuity	p-value
ISS "Against" recommendation	0.283**	0.043	0.226**	0.035
Analyst coverage	-1.201***	0.001	-0.716**	0.016
Institutional ownership	-0.28****	0.005	-0.193**	0.028
Board independence	-0.082*	0.062	-0.074**	0.039
Shareholder proposal	-0.236*	0.072	-0.197**	0.033
Past stock return	0.168	0.290	0.096	0.356
Firm size	-3.362***	0.002	-2.679***	0.002
Tobin's Q	1.667***	0.001	0.603	0.138
R&D/assets	0.046	0.280	0.028	0.259
Capex/assets	0.012	0.346	0.003	0.648

Table 4. Mechanisms

The table shows the results of manipulation tests based on the discontinuity in the density of management proposals around the passage threshold for different sub-samples of data. In column 2, we report the density discontinuity estimate based on the estimation method by McCrary (2008), which is calculated as the logarithm of the ratio of the fitted proposal densities on the right and on the left of the passage threshold; the corresponding z-statistics for the difference of the discontinuity from zero are provided in column 3. The last column provides z-statistic for the difference in discontinuities in two samples. All variable definitions are provided in Appendix B.

	Discontinuity	z-stat	*Difference b/w groups* (z-stat)
Adjourn meeting	2.139	4.48	
No adjourn meeting	1.169	11.97	Adjourn - No adjourn (1.99)
Passed adjourn meeting	3.477	2.79	
No passed adjourn meeting	1.193	11.98	Passed adjourn - No adjourn (1.83)
Adjourn annual meeting	2.900	3.01	
No adjourn annual meeting	1.118	11.18	Adjourn annual - No adjourn (1.84)
DEFA14A after proxy date	1.639	7.05	
No DEFA14A after proxy date	1.015	9.19	DEFA14A - No DEFA14A (2.42)

Table 5. Counterfactual proposal density estimation

The table reports the results of the counterfactual proposal density estimation following the bunching method developed by Kleven and Waseem (2013). We first group proposals in the 1% bins indexed by i and then estimate the following model $n_i = \sum_{j=0}^{p} \beta_j z_i^j + \sum_{j=z_-}^{z_+} \gamma_j 1_{z_i=j} + \varepsilon_i$, where z_i are bin values, n_i is the number of proposals in bin i, p is the order of the polynomial, and $[z_-, z_+]$ refers to the excluded area around zero difference between the official vote percentage and vote requirement. To generate the counterfactual distribution, we then calculate the fitted values from the above equation, but omit the term with indicator variables for the excluded area. The standard errors are obtained using a bootstrap procedure, in which we generate 500 distributions of the vote percentage by random resampling of the residuals from equation (1) in the text.

Degree p, range $[z_-, z_+]$	# in range $\Sigma_{z_-}^{z_+} n_i$	Excess bunching $\Sigma_0^{z_+} (n_i - \widehat{n}_i)$	Missing mass $\Sigma_{z_-}^0 (\widehat{n}_i - n_i)$	% bunching $\frac{\Sigma_0^{z_+}(n_i - \widehat{n}_i)}{\Sigma_{z_-}^{z_+} \widehat{n}_i}$	% missing $\frac{\Sigma_{z_-}^0 (\widehat{n}_i - n_i)}{\Sigma_{z_-}^{z_+} \widehat{n}_i}$	Difference $\widehat{B} = \Sigma_{z_-}^{z_+} (n_i - \widehat{n}_i)$	$\widehat{b} = \frac{\widehat{B}}{\Sigma_{z_-}^{z_+} \widehat{n}_i/(2z+1)}$	$SE\left(\widehat{b}\right)$
5, $[-10\%, 10\%]$	2,382	266	379	10.6%	15.2%	-113	-0.95	0.677
4, $[-10\%, 10\%]$	2,382	296	411	11.9%	16.5%	-115	-0.96	0.751
5, $[-5\%, 5\%]$	1,154	171	257	13.8%	20.7%	-86	-0.77	0.396
4, $[-5\%, 5\%]$	1,154	188	278	15.1%	22.4%	-90	-0.79	0.476

Table 6. Density of shareholder proposals around the passage threshold

The table shows the results of manipulation tests based on the discontinuity in the density of shareholder proposals around the passage threshold. In column 3, we report the density discontinuity estimate based on the estimation method by McCrary (2008), which is calculated as the logarithm of the ratio of the fitted proposal densities on the right and on the left of the passage threshold; the corresponding z-statistics for the difference of the discontinuity from zero are provided in column 4. The last column provides z-statistic for the difference in discontinuities in two samples.

	Obs.	Discont.	z-stat	*Difference b/w groups* (z-stat)
Shareholder proposals	8,048	-0.338	-2.96	
Management proposals	26,981	1.245	12.65	Shareholder-Management (-6.01)
Shareholder proposals:				
Governance, proxy access	3,822	-0.461	-3.52	
Compensation	1,470	-0.228	-1.20	
Social, environment, etc.	2,756	-0.040	-0.10	

Table 7. Market reaction to narrow passage or failure of proposals

The table shows the average stock market reaction to a narrow passage or failure of a management proposal during the seven-day period around the shareholder meeting date, *CAR(-1,+5)*. The sample contains all shareholder meetings that have one close management proposal; meetings with multiple close proposals are excluded from the sample. Column 3 and 4 show the abnormal stock returns based on the Fama-French three-factor model and Carhart four-factor model, respectively. The corresponding t-statistics are provided below the estimates.

		CAR(-1,+5) (%)	
		Fama-French 3-factor	*Carhart 4-factor*
2%	Win	-0.81	-0.77
		(-1.19)	(-1.13)
	Loss	3.01*	2.84*
		(1.79)	(1.73)
	Difference	3.82**	3.61**
		(2.40)	(2.28)
1%	Win	-1.22	-1.29
		(-1.06)	(-1.13)
	Loss	5.28*	5.24*
		(1.78)	(1.81)
	Difference	6.51**	6.53**
		(2.42)	(2.46)

Table 8. Manipulation likelihood and market reaction to narrow passage or failure of proposals

The table shows the estimates of the OLS regression, where the dependent variable is the stock market reaction to a narrow passage or failure of a management proposal during the seven-day period around the shareholder meeting date, *CAR(-1,+5)*. The abnormal return is calculated either using the Fama-French three-factor model or Carhart four-factor model (as indicated). The sample contains all shareholder meetings that have one close management proposal (within the 2% band around the threshold); meetings with multiple close proposals are excluded from the sample. *Proposal lost* is an indicator variable equal to one if proposal lost at the meeting; zero otherwise. *Likely manipulated* is an indicator variable equal to one if the fitted probability of proposal passage is greater than the sample median; zero otherwise. The model for proposal passage is estimated by OLS or Logit model (as indicated), and it includes all explanatory variables from Table 3. All variable definitions are provided in Appendix B.

	(1)	(2)	(3)	(4)
Dependent Variable:	*CAR(-1,+5) (%)*			
Prediction Model:	*OLS*		*Logit*	
Asset-Pricing Model:	*FF*	*Carhart*	*FF*	*Carhart*
Proposal lost × Likely manipulated	0.069**	0.067**	0.064**	0.062**
	(0.031)	(0.031)	(0.031)	(0.031)
Proposal lost	0.004	0.002	0.007	0.005
	(0.020)	(0.019)	(0.020)	(0.019)
Likely manipulated	0.000	0.001	0.006	0.006
	(0.014)	(0.014)	(0.014)	(0.014)
Constant	0.002	0.003	-0.001	-0.000
	(0.010)	(0.010)	(0.010)	(0.010)
Observations	250	250	250	250
Adjusted R^2	0.027	0.023	0.027	0.024

Appendix A: Model

Here we provide a theoretical framework that helps to interpret our empirical analysis.

Projects: Suppose projects arrive stochastically and are privately observed by a firm's manager, who can then decide whether to bring them up for a shareholder vote.[33] Positive shareholder vote is required for project implementation. If a project is not presented to the firm's shareholders, the payoff to all parties is 0.

The manager has perfect information about the value of each project to her shareholders; the value is drawn from the binary distribution $V \in \{L, H\}$, $H > 0$, $L < 0$, $Pr(V = H) = \lambda_H$. We assume the interests of the manager are partially aligned with those of her shareholders. Specifically, she values taking positive NPV projects to the extent α, where $0 < \alpha < 1$ (e.g., because of compensation structure, share ownership, or the possibility of dismissal for implementing bad projects), but she also cares about the private benefits associated with each project. The private benefits are drawn from the binary distribution $b \in \{0, B\}$, $B > 0$, $Pr(b = B) = \lambda_B$. At the project arrival stage, the distribution of private benefits is independent of the distribution of project values. In sum, the payoff to the manager if the project is accepted is

$$M = \alpha V + b. \tag{2}$$

Shareholders: There is a single blockholder who represents all shareholders; i.e., there are no coordination or information sharing problems among shareholders. The blockholder cannot observe the realized private benefits associated with the project, but he has an imperfect signal about the project's value. In particular, the blockholder observes a binary public signal $s \in \{l, h\}$, such that $\Pr(s = h|V = H) = \delta > \frac{1}{2}$ and $\Pr(s = h|V = L) = 1 - \delta$. The parameter δ measures the precision of the blockholder's information. We can calculate the conditional probabilities of high- and low-value project arrival as

$$p_{H|h} = \frac{\lambda_H \delta}{\lambda_H \delta + (1 - \lambda_H)(1 - \delta)}, \tag{3}$$

$$p_{L|l} = \frac{(1 - \lambda_H)\delta}{(1 - \lambda_H)\delta + \lambda_H (1 - \delta)}. \tag{4}$$

Project selection: There is no cost to the manager in presenting a project to her shareholders. In fact, she brings up all projects that have positive value to her ($M > 0$). We further assume that the private benefits are sufficiently high, so that $\alpha L + B > 0$. Thus the manager brings up all types of projects, except when she observes low value and no private benefits ($V = L$, $b = 0$). Note that because of project selection by the manager, in the sample of

[33] Here we implicitly assume there are no conflicts of interest among the members of the firm's executive team (e.g., between the board of directors and the CEO).

projects up for a vote, private benefits are more likely to be associated with low-value projects. Specifically, when project value is L, the manager has private benefits B with probability one.

Voting and manipulation: As is typically the case in practice, we assume the shareholder vote on management proposals is binding. However, the vote outcome can be influenced by the manager, and whether manipulation took place cannot be determined by courts. For illustrative purposes, we assume that shareholders first indicate whether they will *Accept* or *Reject* a project.[34] If they plan to *Accept*, the manager has no incentive to influence vote outcomes because all proposed projects are beneficial to her. If shareholders plan to *Reject,* the manager can choose to influence the vote if the benefits of doing so outweigh the costs. Specifically, we assume that manipulation results in a personal cost C to the manager and changes the outcome of the vote with probability θ. If shareholders plan to *Reject* the project, it is optimal for the manager to influence the outcome if

$$\theta\left(\alpha V + b\right) > C. \tag{5}$$

Assumption 1. The pool of projects is such that $\alpha L + B > \frac{C}{\theta} > \alpha H$.

Under this assumption, there is manipulation of projects with $V = H, b = B$ and $V = L, b = B$. As will become clear later, managerial influence on vote outcomes is on average value-reducing in this case. We will focus on the case with value-creating managerial influence on vote outcomes later.

Shareholder voting strategies: We next determine the optimal shareholder voting strategies. When a public signal is high, the payoffs to shareholders when they *Reject* or *Accept* a proposed project are, respectively,

$$E\left(V|s = h, Reject\right) = \frac{p_{H|h}\lambda_B\theta H + \left(1 - p_{H|h}\right)\lambda_B\theta L}{p_{H|h} + \left(1 - p_{H|h}\right)\lambda_B}, \tag{6}$$

$$E\left(V|s = h, Accept\right) = \frac{p_{H|h}H + \left(1 - p_{H|h}\right)\lambda_B L}{p_{H|h} + \left(1 - p_{H|h}\right)\lambda_B}. \tag{7}$$

Note that in case of an *Accept* decision, the manager never influences the outcome. By comparing the payoffs, we observe that shareholders *Accept* the project if

$$\frac{p_{H|h}}{1 - p_{H|h}}\frac{1 - \lambda_B\theta}{\lambda_B\left(1 - \theta\right)}H > -L. \tag{8}$$

[34] This is equivalent to the manager privately observing the outcome of a vote in the absence of any manipulation. In reality, managers in the United States have access to the real-time voting information by their shareholders.

Similarly, if $s = l$, then the shareholders' payoffs are

$$E\left(V|s=l, Reject\right) = \frac{\left(1-p_{L|l}\right)\lambda_B\theta H + p_{L|l}\lambda_B\theta L}{1-p_{L|l}\left(1-\lambda_B\right)}, \tag{9}$$

$$E\left(V|s=l, Accept\right) = \frac{\left(1-p_{L|l}\right)H + p_{L|l}\lambda_B L}{1-p_{L|l}\left(1-\lambda_B\right)}. \tag{10}$$

Shareholders *Reject* the project if

$$\frac{1-p_{L|l}}{p_{L|l}}\frac{1-\theta\lambda_B}{\lambda_B\left(1-\theta\right)}H < -L. \tag{11}$$

It is straightforward to verify

$$\frac{p_{H|h}}{1-p_{H|h}} > \frac{1-p_{L|l}}{p_{L|l}}, \tag{12}$$

which implies that if shareholders *Accept* a proposed project when $s = l$, they will also do so when $s = h$. Likewise, if shareholders *Reject* a proposed project when $s = h$, they will also reject it when $s = l$.

Lemma 1. *Suppose Assumption 1 is satisfied. Then the region of project acceptance by the firm shareholders (weakly) increases with the higher precision of the manager's manipulation technology, θ.*

Proof. The proof follows directly from (8) and (11). □

Intuitively, when managerial influence on vote outcomes is highly efficient, the bad project always gets passed even if shareholders vote it down (recall that the bad project has high private benefits). However, some good projects with no private benefits fail if shareholders *Reject*. Since it does not benefit shareholders to rule out only good projects, they are better off with an *Accept* decision.

Next, we construct the equilibria. Three types of equilibria are possible: (1) the *pooling equilibrium*, in which shareholders accept all projects and hence all projects pass; (2) the *pooling equilibrium*, in which shareholders reject all projects, some projects are manipulated and pass; and (3) the *separating equilibrium*, in which shareholders accept projects when $s = h$ and reject them when $s = l$; some rejected projects are manipulated and pass.

Proposition 1. *Suppose Assumption 1 is satisfied. Then project passage rate is higher in the economy with manipulation, and shareholders are worse off in such economy.*

Proof. When manipulation is impossible, a *Reject* decision guarantees a zero payoff. Shareholders vote to *Accept* a project for $s = h$ if

$$\frac{p_{H|h}}{1-p_{H|h}}\frac{1}{\lambda_B}H > -L. \tag{13}$$

When $s = l$ shareholders vote to *Accept* the project if

$$\frac{1 - p_{L|l}}{p_{L|l}} \frac{1}{\lambda_B} H > -L. \tag{14}$$

Comparing these inequalities to (8) and (11) and noting $\frac{1-\lambda_B\theta}{1-\theta} > 1$, we see that shareholders are more likely to *Accept* projects in the economy with vote manipulation. In addition, manipulation of rejected projects by the manager further increases the passage rate. Thus passage rate is higher in the economy with manipulation. The expected payoff to shareholders is

$$\begin{aligned} V^{\text{no manip.}} &= p_h \max\{0, \frac{p_{H|h}H + \left(1 - p_{H|h}\right)\lambda_B L}{p_{H|h} + \left(1 - p_{H|h}\right)\lambda_B}\} \\ &\quad + \left(1 - p_h\right) \max\{0, \frac{\left(1 - p_{L|l}\right) H + p_{L|l}\lambda_B L}{1 - p_{L|l}\left(1 - \lambda_B\right)}\}, \end{aligned} \tag{15}$$

where $p_h = \lambda_H \delta + (1 - \lambda_H)(1 - \delta)$. Because three equilibria are possible in the economy with manipulation, we will analyze them separately.

Suppose that (8) and (11) are satisfied; i.e., the *separating Accept/Reject equilibrium* is sustained with manipulation. The shareholders' expected payoff with manipulation is

$$V = p_h \frac{p_{H|h}H + \left(1 - p_{H|h}\right)\lambda_B L}{p_{H|h} + \left(1 - p_{H|h}\right)\lambda_B} + \left(1 - p_h\right)\lambda_B\theta \frac{\left(1 - p_{L|l}\right) H + p_{L|l}L}{1 - p_{L|l}\left(1 - \lambda_B\right)}, \tag{16}$$

The first term in (16) is less than or equal to the first term in (15). To prove that manipulation is value-destroying, it is then sufficient to show

$$\left(1 - p_{L|l}\right)\lambda_B\theta H + p_{L|l}\lambda_B\theta L < \max\{0, \left(1 - p_{L|l}\right) H + p_{L|l}\lambda_B L\}, \tag{17}$$

which is true if

$$\frac{1 - p_{L|l}}{p_{L|l}} H < -L. \tag{18}$$

From (11) and $\frac{1-\theta\lambda_B}{\lambda_B - \lambda_B\theta} > 1$, it follows that (18) is always satisfied.

Suppose now that (8) is satisfied, whereas (11) is not; i.e., the *pooling Accept/Accept equilibrium* is sustained. The shareholders' equilibrium expected payoff with manipulation is

$$V = p_h \frac{p_{H|h}H + \left(1 - p_{H|h}\right)\lambda_B L}{p_{H|h} + \left(1 - p_{H|h}\right)\lambda_B} + \left(1 - p_h\right) \frac{\left(1 - p_{L|l}\right) H + p_{L|l}\lambda_B L}{1 - p_{L|l}\left(1 - \lambda_B\right)}, \tag{19}$$

By comparing this expression to (15), we observe that $V^{\text{no manip.}} \geq V$.

Finally, suppose (11) is satisfied and (8) is not, which means the *pooling Reject/Reject equilibrium* takes place with manipulation. The shareholders' expected payoff with manipulation is

$$V = p_h \lambda_B \theta \frac{p_{H|h} H + \left(1 - p_{H|h}\right) L}{p_{H|h} + \left(1 - p_{H|h}\right) \lambda_B} + \left(1 - p_h\right) \lambda_B \theta \frac{\left(1 - p_{L|l}\right) H + p_{L|l} L}{1 - p_{L|l} \left(1 - \lambda_B\right)}, \tag{20}$$

Compare the last expression to (15). To establish that manipulation is value-destroying, it is sufficient to show

$$\begin{aligned} p_{H|h} \lambda_B \theta H + \left(1 - p_{H|h}\right) \lambda_B \theta L &< \max\{0, p_{H|h} H + \left(1 - p_{H|h}\right) \lambda_B L\}, & (21) \\ \left(1 - p_{L|l}\right) \lambda_B \theta H + p_{L|l} \lambda_B \theta L &< \max\{0, \left(1 - p_{L|l}\right) H + p_{L|l} \lambda_B L\}, & (22) \end{aligned}$$

The first condition follows because (8) is violated and $\frac{1-\theta\lambda_B}{\lambda_B - \lambda_B \theta} > 1$. The second condition follows because of (11) and $\frac{1-\theta\lambda_B}{\lambda_B - \lambda_B \theta} > 1$. Thus shareholders always obtain a lower expected payoff when a manager has the ability to manipulate the vote outcome. □

In general, manipulation can have both positive and negative effects. On one hand, if shareholders receive a low signal when the true value of a project is high and the manager manipulates the vote so that the project passes, this action benefits the shareholders. However, this only happens when the private benefits to the manager are also high. On the other hand, the manager will always manipulate to pass the low-value projects (since they always have high private benefits to the manager). It is the tradeoff between these two factors that determines whether manipulation is net beneficial to shareholders. Manipulation can potentially be beneficial when the signal is uninformative and $H >> -L$. However, this case does not arise in equilibrium because under these conditions shareholders would vote to accept the project on their own and manipulation would not take place.

We next analyze the market reaction to passage and failure of management proposals in the economy with vote manipulation. From the outcome of the vote, the market can potentially learn about the realized private benefits b, project value V, and the success of manipulation by the manager.

Proposition 2. *Suppose Assumption 1 is satisfied. Then the average market reaction to the proposal's passage is non-positive, $R_P \leq 0$, and the average market reaction to the proposal's failure is non-negative, $R_F \geq 0$.*

Proof. Again, we consider different types of equilibria. In the *pooling Accept/Accept equilibrium*, the market reaction on passage is always zero since no new information is generated, $R_{P,h} = R_{P,l} = R_P = 0$. Proposal failure never happens.

Consider now the *separating Accept/Reject equilibrium*. When $s = h$, the manager passes all projects prescribed by the shareholders. Since no new information is revealed upon passage,

the market reaction is zero, $R_{P,h} = 0$. If a proposal passes when $s = l$, it means that the manager successfully manipulated the project, which can arise when either $V = L$, $b = B$ or $V = H$, $b = B$ (Assumption 1). The expected payoff to shareholders when a proposal passes is

$$V_{P,l} = \left(1 - p_{L|l}\right) H + p_{L|l} L < 0, \tag{23}$$

which is negative because of (18). The expected payoff when a proposal fails is 0 since no project is implemented, $V_{F,l} = 0$. The price before observing whether a proposal passes or fails, but after observing $s = l$, is

$$V_l = p_{P|l} \left(\left(1 - p_{L|l}\right) H + p_{L|l} L \right), \tag{24}$$

where $p_{P|l}$ is the probability of project passage conditional on $s = l$. Therefore, the price reaction on observing that a proposal fails given $s = l$ is

$$R_{F,l} = V_{F,l} - V_l = -p_{P|l} \left(\left(1 - p_{L|l}\right) H + p_{L|l} L \right) > 0. \tag{25}$$

The average reaction across all proposals that fail is $R_{F,l}$ since no proposals fail when $s = h$

$$R_F = R_{F,l} > 0. \tag{26}$$

The price reaction on observing that a proposal passes given $s = l$ is

$$R_{P,l} = V_{P,l} - V_l = \left(\left(1 - p_{L|l}\right) H + p_{L|l} L \right) \left(1 - p_{P|l}\right) < 0. \tag{27}$$

The average reaction across all proposals that pass can be obtained by taking a weighted average of $R_{P,l} < 0$ and $R_{P,h} = 0$, which is negative

$$R_P = R_{P,l} \frac{p_{P|l} \left(1 - p_h\right)}{p_{P|l} \left(1 - p_h\right) + p_h} < 0. \tag{28}$$

The payoffs and market reactions in the *separating Accept/Reject equilibrium* are summarized in the table below.

	$Pass$	$Fail$	V_s
h	$V_{P,h} = p_{H\|h} H + \left(1 - p_{H\|h}\right) L > 0$ $R_{P,h} = 0$	$V_{F,h} = n/a$ $R_{F,h} = n/a$	$p_{H\|h} H + \left(1 - p_{H\|h}\right) L$
l	$V_{P,l} = \left(1 - p_{L\|l}\right) H + p_{L\|l} L < 0$ $R_{P,l} = \left(1 - p_{P\|l}\right) V_{P,l} < 0$	$V_{F,l} = 0$ $R_{F,l} = -p_{P\|l} V_{P,l} > 0$	$p_{P\|l} \left(\left(1 - p_{L\|l}\right) H + p_{L\|l} L \right)$
	$R_P < 0$	$R_F > 0$	

Finally, consider the *pooling Reject/Reject equilibrium*. Following similar steps, we obtain the payoffs and market reactions listed below.

	$Pass$	$Fail$	V_s
h	$V_{P,h} = p_{H\|h}H + \left(1 - p_{H\|h}\right) L < 0$ $R_{P,h} = \left(1 - p_{P\|h}\right) V_{P,h} < 0$	$V_{F,h} = 0$ $R_{F,h} = -p_{P\|h} V_{P,h} > 0$	$p_{P\|h} \left(p_{H\|h}H + \left(1 - p_{H\|h}\right) L\right)$
l	$V_{P,l} = \left(1 - p_{L\|l}\right) H + p_{L\|l} L < 0$ $R_{P,l} = \left(1 - p_{P\|l}\right) V_{P,l} < 0$	$V_{F,l} = 0$ $R_{F,l} = -p_{P\|l} V_{P,l} > 0$	$p_{P\|l} \left(\left(1 - p_{L\|l}\right) H + p_{L\|l} L\right)$
	$R_P < 0$	$R_F > 0$	

Here $p_{P|l}$ and $p_{P|h}$ are the probabilities of project passage conditional on $s = l$ and $s = h$, respectively, and are given by

$$p_{P|l} = \frac{\theta \lambda_B}{1 - p_{L|l} + p_{L|l} \lambda_B}, \quad p_{P|h} = \frac{\theta \lambda_B}{p_{H|h} + \left(1 - p_{H|h}\right) \lambda_B}. \tag{29}$$

□

Assumption 2. The pool of projects is such that $\alpha H + B > \frac{C}{\theta} > \max\{\alpha H, \alpha L + B\}$.

Under this alternative assumption of high costs of vote manipulation, the manager will only manipulate the outcome when the project's value is high ($V = H, b = B$). Hence all manipulation that takes place benefits the shareholders. We derive this result formally and show that market reactions to proposal passage and failure reverse signs.

When $s = h$, the payoffs to shareholders when they *Reject* or *Accept* a project are

$$E\left(V|s = h, Reject\right) = \frac{p_{H|h} \lambda_B \theta H}{p_{H|h} + \left(1 - p_{H|h}\right) \lambda_B}, \tag{30}$$

$$E\left(V|s = h, Accept\right) = \frac{p_{H|h} H + \left(1 - p_{H|h}\right) \lambda_B L}{p_{H|h} + \left(1 - p_{H|h}\right) \lambda_B}. \tag{31}$$

Shareholders *Accept* the project if

$$\frac{p_{H|h}}{1 - p_{H|h}} \frac{1 - \lambda_B \theta}{\lambda_B} H > -L. \tag{32}$$

When $s = l$, the shareholders' payoffs are

$$E\left(V|s = l, Reject\right) = \frac{\left(1 - p_{L|l}\right) \lambda_B \theta H}{1 - p_{L|l}\left(1 - \lambda_B\right)}, \tag{33}$$

$$E\left(V|s = l, Accept\right) = \frac{\left(1 - p_{L|l}\right) H + p_{L|l} \lambda_B L}{1 - p_{L|l}\left(1 - \lambda_B\right)}. \tag{34}$$

Shareholders *Reject* the project if

$$\frac{1 - p_{L|l}}{p_{L|l}} \frac{1 - \theta \lambda_B}{\lambda_B} H < -L. \tag{35}$$

Lemma 2. *Suppose Assumption 2 is satisfied. Then the region of project acceptance by the firm shareholders (weakly) decreases with the higher precision of the manager's manipulation technology, θ.*

Proof. The proof follows directly from a comparative statics analysis of (32) and (35) with respect to θ. □

Proposition 3. *Suppose Assumption 2 is satisfied. Then shareholders are better off in the economy with manipulation.*

Proof. In the economy with no manipulation, the expected shareholder payoff is given by (15). We analyze three types of equilibria separately. Assume first that (32) and (35) are satisfied; i.e., the *separating Accept/Reject equilibrium* is sustained with manipulation. The shareholders' equilibrium expected payoff with manipulation is

$$V = p_h \frac{p_{H|h} H + \left(1 - p_{H|h}\right) \lambda_B L}{p_{H|h} + \left(1 - p_{H|h}\right) \lambda_B} + \left(1 - p_h\right) \frac{\left(1 - p_{L|l}\right) \lambda_B \theta H}{1 - p_{L|l} \left(1 - \lambda_B\right)}, \tag{36}$$

Note that $E\left(V|s = h, Accept\right) > 0$ because it is greater than $E\left(V|s = h, Reject\right)$. Hence the first term in (36) is equal to the first term in (15). To prove that manipulation is value-creating, it is thus sufficient to show

$$\left(1 - p_{L|l}\right) \lambda_B \theta H > \max\{0, \left(1 - p_{L|l}\right) H + p_{L|l} \lambda_B L\}. \tag{37}$$

The first part of inequality follows trivially because $H > 0$; the second part follows because (32) holds in this equilibrium.

Suppose now (32) is satisfied, whereas (35) is not; i.e., the *pooling Accept/Accept equilibrium* takes place with manipulation. It is straightforward to show $V^{\text{no manip.}} = V$.

Finally, suppose (35) is satisfied, whereas (32) is not; i.e., the *pooling Reject/Reject equilibrium* takes place with manipulation. The shareholders' equilibrium expected payoff with manipulation is

$$V = p_h \frac{p_{H|h} \lambda_B \theta H}{p_{H|h} + \left(1 - p_{H|h}\right) \lambda_B} + \left(1 - p_h\right) \frac{\left(1 - p_{L|l}\right) \lambda_B \theta H}{1 - p_{L|l} \left(1 - \lambda_B\right)}, \tag{38}$$

By comparing the last expression to (15), we see that manipulation is value-creating if

$$p_{H|h} \lambda_B \theta H > \max\{0, p_{H|h} H + \left(1 - p_{H|h}\right) \lambda_B L\}, \tag{39}$$

$$\left(1 - p_{L|l}\right) \lambda_B \theta H > \max\{0, \left(1 - p_{L|l}\right) H + p_{L|l} \lambda_B L\}, \tag{40}$$

which again follows from the equilibrium conditions. □

Proposition 4. *Suppose Assumption 2 is satisfied. Then the average market reaction to the proposal's passage is non-negative, $R_P \geq 0$, and the average market reaction to the proposal's failure is non-positive, $R_F \leq 0$.*

Proof. The proof follows essentially the same steps as the proof of Proposition 2. The payoffs and market reactions in the *pooling Accept/Accept equilibrium* are below.

	$Pass$	$Fail$	V_s
h	$V_{P,h} = p_{H\|h}H + \left(1 - p_{H\|h}\right) L > 0$ $R_{P,h} = 0$	$V_{F,h} = n/a$ $R_{F,h} = n/a$	$p_{H\|h}H + \left(1 - p_{H\|h}\right) L$
l	$V_{P,l} = \left(1 - p_{L\|l}\right) H + p_{L\|l}L > 0$ $R_{P,l} = 0$	$V_{F,l} = n/a$ $R_{F,l} = n/a$	$\left(1 - p_{L\|l}\right) H + p_{L\|l}L$
	$R_P = 0$	$R_F = n/a$	

The payoffs and market reactions in the *separating Accept/Reject equilibrium* are below.

	$Pass$	$Fail$	V_s
h	$V_{P,h} = p_{H\|h}H + \left(1 - p_{H\|h}\right) L > 0$ $R_{P,h} = 0$	$V_{F,h} = n/a$ $R_{F,h} = n/a$	$p_{H\|h}H + \left(1 - p_{H\|h}\right) L$
l	$V_{P,l} = H > 0$ $R_{P,l} = \left(1 - p_{P\|l}\right) H > 0$	$V_{F,l} = 0$ $R_{F,l} = -p_{P\|l}H < 0$	$p_{P\|l}H$
	$R_P > 0$	$R_F < 0$	

Finally, the payoffs and reactions in the *pooling Reject/Reject equilibrium* are given below.

	$Pass$	$Fail$	V_s
h	$V_{P,h} = H > 0$ $R_{P,h} = \left(1 - p_{P\|h}\right) H > 0$	$V_{F,h} = 0$ $R_{F,h} = -p_{P\|h}H < 0$	$p_{P\|h}H$
l	$V_{P,l} = H > 0$ $R_{P,l} = \left(1 - p_{P\|l}\right) H > 0$	$V_{F,l} = 0$ $R_{F,l} = -p_{P\|l}H < 0$	$p_{P\|l}H$
	$R_P > 0$	$R_F < 0$	

Here $p_{P|l}$ and $p_{P|h}$ are the probabilities of project passage conditional on $s = l$ and $s = h$, respectively, and are given by

$$p_{P|l} = \frac{\left(1 - p_{L|l}\right) \lambda_B \theta}{1 - p_{L|l} + p_{L|l}\lambda_B}, \;\; p_{P|h} = \frac{p_{H|h}\lambda_B \theta}{p_{H|h} + \left(1 - p_{H|h}\right) \lambda_B}. \tag{41}$$

□

Appendix B: Additional tables

Table B.1. Variable definitions

Variable name	Definition
Official vote (*Vote%*)	Vote percentage in favor of a management proposal, calculated for proposals with the vote outcome of "Pass" or "Fail" (see Section 3.1 for details).
Passage rate (*Pass%*)	The number of passed proposals—i.e., with *Vote%* > vote requirement, divided by the number of all management proposals with outcome (in %).
Withdrawn proposals	The number of proposals with the vote result "Withdrawn" or "Not Disclosed."
ISS "Against" recommendation	An indicator variable equal to one if ISS recommends voting "Against" a given proposal; equal to zero otherwise.
Voter turnout (*Turnout%*)	Voter turnout, calculated as $Turnout\%=\frac{F+A+AB+Nonvotes}{N}$, where F is votes "For," A is votes "Against," AB is votes abstained, and $Nonvotes$ is votes cast as broker non-votes.
Quorum is established	An indicator variable equal to one for all proposals that are voted on the shareholder meeting with *Turnout%* > 50%; equal to zero otherwise.
Number of management proposals	The number of management-sponsored proposals (after removing certain types of proposals) launched during the fiscal year (see Section 3.1 for details).
Shareholder proposal	An indicator variable equal to one if any shareholder-sponsored proposal was launched in the previous year; equal to zero otherwise.
Special meeting	An indicator variable equal to one if the shareholder meeting on which the proposal is being considered has type is "Special"; equal to zero otherwise.
Analyst coverage	Log of the number of analysts covering the firm during the fiscal year.
Institutional ownership	The number of shares held by institutions (Thomson Reuters 13F), divided by the total number of shares outstanding.
Board independence	The fraction of the board members who are classified as independent directors.
Past stock return	The firm stock return over the past 12 months.
Firm size	Log of the book value of assets (AT).
Tobin's Q	Market value of assets (AT - CEQ + PRCC_C*CSHO), divided by the book value of assets (AT).
R&D/assets	Research and development expenses (XRD), divided by the book value of assets (AT). Variable is set to zero if missing.
Capex/assets	Capital expenditures (CAPX), divided by the book value of assets (AT).

Variable name	Definition
Adjourn meeting	An indicator variable equal to one for a management proposal that is on the agenda of a shareholder meeting that also has a proposal to "Adjourn Meeting"; equal to zero otherwise.
Passed adjourn meeting	An indicator variable equal to one for a management proposal that is on the agenda of a shareholder meeting that also has a proposal to "Adjourn Meeting" and that proposal passes; equal to zero otherwise.
Adjourn annual meeting	An indicator variable equal to one for a management proposal that is on the agenda of the annual shareholder meeting that also has a proposal to "Adjourn Meeting"; equal to zero otherwise.
DEFA14A after proxy date	An indicator variable equal to one for a management proposal if there is a DEFA14A form filed by the firm before the annual shareholder meeting (within 60 days) and after the proxy statement date; equal to zero otherwise.
Proposal lost	An indicator variable equal to one if proposal lost at the meeting; equal to zero otherwise.
Likely manipulated	An indicator variable equal to one if the fitted value of the predicted probability of proposal passage is greater than the sample median; equal to zero otherwise.

Table B.2. Determinants of management proposals

The table reports the OLS estimates, where the dependent variable is the number of management proposals launched during the year. All variable definitions are provided in the Appendix. The standard errors clustered by firm are in parentheses. ***, **, and * refer to the significance at the 1%, 5%, and 10% level.

	(1)	(2)	(3)	(4)
Past stock return	0.085***	0.090***	0.116***	0.106***
	(0.012)	(0.014)	(0.023)	(0.025)
Stock return volatility	0.400***	0.290***	0.472***	0.368***
	(0.036)	(0.044)	(0.067)	(0.083)
Analyst coverage	0.060***	0.009	0.074***	-0.029
	(0.010)	(0.018)	(0.016)	(0.031)
Institutional ownership	-0.091***	-0.107**	-0.049	-0.160*
	(0.025)	(0.048)	(0.049)	(0.093)
Firm size	0.039***	-0.011	0.029***	0.004
	(0.005)	(0.021)	(0.0093)	(0.033)
Tobin's Q	-0.010**	-0.004	-0.009	0.022
	(0.005)	(0.008)	(0.009)	(0.014)
R&D/assets	0.651***	0.214	1.370***	0.002
	(0.100)	(0.181)	(0.241)	(0.560)
Capex/assets	-0.100	-0.307	0.097	0.224
	(0.125)	(0.225)	(0.212)	(0.389)
Board size			0.020***	0.025***
			(0.006)	(0.009)
Board independence			-0.114	-0.307**
			(0.079)	(0.126)
Observations	34,415	34,415	15,136	15,136
Company FE	No	Yes	No	Yes
Year FE	Yes	Yes	Yes	Yes
Adj. R2	0.023	0.110	0.024	0.083

Table B.3. Manipulation test of Cattaneo, Jansson, and Ma (2020)

The table shows the results of manipulation tests based on the discontinuity in the density of management proposals around the passage threshold based on the non-parametric estimation method developed by Cattaneo, Jansson, and Ma (2020). In column 2 we report CJM test statistics for manipulation, which are calculated as the difference in the local polynomial density estimators on the right and on the left of the passage threshold, divided by the standard error of the estimator, $T_p(h) = \frac{\widehat{f}_{+,p}(h) - \widehat{f}_{-,p}(h)}{\widehat{V}_p(h)}$; the corresponding p-values are provided in column 3.

	CJM test statistic	*CJM* p-value
All proposals	7.15***	0.000
Meeting type:		
Special meeting	4.30***	0.000
Annual meeting	7.40***	0.000
Meeting agenda:		
Compensation	1.85*	0.064
Share issuance	5.43***	0.000
Governance	4.89***	0.000
Strategic decisions	0.49	0.631

Table B.4. Fraction of proposals with altered outcome among zero-margin fails

This table presents the summary statistics for the fraction of proposals with altered outcome among zero-margin fails (FPAO). Column 2 reports the number of proposals considered in the estimation, i.e., those proposals for which the difference between the vote percentage and the vote requirement is between -35% and +35%. Column 3 reports FPAO estimate for each subsample (in %). The sample is split by ISS recommendation, the presence of shareholder proposals on the ballot during the previous year, and the sample median values of institutuional ownership, the number of analysts covering the stock, board independence, and book value of assets. We calculate the standard errors and the corresponding 95% confidence intervals (reported in column 4) using the bootstrap method. For each estimate, we resample all proposals with replacement 1,000 times.

Sample	*Obs.*	*FPAO (%)*	*95% CI (%)*
All management proposals	13,213	62.02	(52.89, 70.32)
ISS "Against" recommendation	3,798	66.67	(56.48, 76.76)
ISS "For" recommendation	9,391	57.36	(44.83, 69.60)
High institutuional ownership	5,548	32.79	(0.62, 53.25)
Low institional ownership	5,602	76.11	(66.43, 84.63)
Many analysts	5,959	55.12	(39.83, 68.88)
Few analysts	7,254	65.80	(56.63, 74.75)
High board independence	2,328	40.01	(9.07, 65.94)
Low board independence	2,825	50.06	(20.44, 68.05)
Large firm size	5,498	55.70	(39.21, 68.97)
Small firm size	6,362	67.54	(56.24, 77.62)
Shareholder proposals	1,512	56.79	(32.20, 77.50)
No shareholder proposals	11,701	62.42	(53.52, 70.26)