RETAIL SHAREHOLDER PARTICIPATION IN THE PROXY PROCESS: MONITORING, ENGAGEMENT, AND VOTING

Alon Brav,[a] Matthew Cain,[b] and Jonathon Zytnick[c*]

[a] Fuqua School of Business, Duke University

[b] Berkeley School of Law, UC Berkeley

[c] NYU School of Law

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[*] Alon Brav is the Peterjohn-Richards Professor of Finance at Fuqua School of Business, Duke University, ECGI and NBER. He can be reached by phone: (919) 660-2908, email: brav@duke.edu. Matthew Cain is a Senior Fellow at the Berkeley Center for Law and Business, UC Berkeley School of Law. He can be reached at phone: (574) 485-8065, email: mdcain@outlook.com. Jonathon Zytnick is a fellow at NYU School of Law's Institute for Corporate Governance and Finance, and a PhD student at Columbia University. He can be reached at phone: (240) 498-9112, email: jzytnick@gmail.com. For valuable comments and discussions, we are grateful to Manuel Adelino and Edwin Hu. We also thank Andrea Kropp, Saba Yasmin and Andrew McKinley for their excellent research assistance.

Abstract

This paper studies U.S. retail shareholder voting using a detailed sample of anonymized retail shareholder voting records over the period 2015-2017. We find that retail voters tend to vote more when the firm itself is smaller, when their ownership stake in the portfolio firm is higher and, consistent with informed choice, when the shareholder receives more information from the firm about the agenda. On the choice of how to vote, we find a positive association between retail shareholder support for management and recent performance, which is substantially greater than that for institutional investors. The association between retail shareholder support for management and ISS recommendations is lower than that for institutional investors. Small retail shareholders oppose management to a greater extent than do large retail shareholders, and retail shareholders in general oppose management more at small companies than large ones. Finally, we observe that, on average, voting support for ESG-related proposals is lower among large retail investors than institutional investors. Our results provide support for the idea that retail shareholders are an important force in firm voting, and that institutional voting differs substantially from retail shareholder voting. Thus, the voting choices of fund managers can be a poor proxy for the choices of their ultimate beneficiaries.

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1. Introduction

A central premise of corporate governance research is the shareholder collective action problem. Shareholders, the ultimate economic beneficiaries of firms, are by commonly-accepted wisdom rationally apathetic and dispersed, unable to effectively monitor firms. Research tends to focus on those who are hired to act for shareholders' ultimate economic benefit: the management and directors, and, in more recent decades, the institutional investors which have become the primary channels of investment for most individuals. Much of the research on retail shareholders in the finance literature has focused on their buying and selling decisions while there is little research on their voting decisions. The rise in the importance of corporate governance over the past several decades has brought with it a new focus on the role of institutions as monitors acting on behalf of their underlying investors. Little is known, however, about how retail shareholders monitor firms and whether the choices of institutional investors actually reflect retail investors' preferences. While previous research has produced extensive empirical analysis on institutional investor (i.e. non-retail) voting, the question of how actual retail shareholders vote has not been addressed, mostly due to lack of data availability.

In this paper, we provide the first detailed empirical analysis of retail shareholder voting. We analyze a sample of U.S. retail shareholder voting data covering virtually all regular and special meetings during the three years 2015 to 2017. This data is anonymized at the voter level but allows us to track voters both across firms and over time. To our knowledge, this is the first such study to explore retail shareholder voting behavior in detail. Retail domestic shareholder aggregate share ownership is sizeable, averaging 26% of shares outstanding. It averages close to 38% in firms in the smallest size quintile and declines to 16% in firms in the largest size quintile. The number of investors, however, strongly increases with firm size, with firms in the largest size quintiles held by more than a quarter million retail accounts, on average.

On the question of whether to cast a ballot, we find that retail shareholders cast 32% of their shares, on average, which is significantly lower than the 80% rate of participation by the entire shareholder base. Retail voter participation is greater among smaller firms. We also find that retail shareholders turn out to vote at a higher rate when their stake size in a firm is greater; in total, just 12% of the average firm's total retail accounts choose to vote. An important factor associated with participation is the method of proxy delivery to retail shareholders. Shareholders

who choose to receive full packages of proxy materials are much more likely to vote, as are individuals to whom the firm chooses to send full packages of materials.

Conditional on the decision to vote, we find that retail and non-retail shareholders tend to provide similar support for management proposals. Retail shareholders, however, provide less support for shareholder proposals relative to the broader investor base. These unconditional support rates mask three important heterogeneities. First, retail shareholders at small firms are less (more) supportive of management (shareholder) proposals than they are at larger firms. Second, retail shareholders with a larger equity stake provide stronger (weaker) support for management (shareholder) proposals than smaller shareholders across all firm size sorts. Third, ISS recommendations in support of management and shareholder proposals have a much weaker association with retail voting than that documented for institutional investors.

Retail shareholder support for management proposals (and in opposition to management-opposed proposals) is strongly related to lagged firm stock price performance, even with account-firm fixed effects, consistent with a focus on disciplining poorly-performing firms. The elasticity of retail voting support with respect to lagged performance is highest for small firms. Conditional on voting, changes in the size of a retail voter's stake in a firm over time are positively correlated with changes in that retail voter's support of management.

Retail shareholders do not support environmental, social, and governance (ESG) proposals to the same degree as institutional investors. This is driven by the tendency of retail shareholders with large stake sizes, who participate more often, to vote against such proposals. We find that shareholders with smaller stake sizes, whose turnout rate is low, provide stronger support for ESG proposals when they choose to engage. Overall, the differing rate of ESG support suggests that the voting behavior of institutional investors may poorly reflect the underlying preferences of retail investors.

The evidence we present is consistent with the view that retail shareholders play a beneficial role in both monitoring and voting, and one that institutional investors do not perfectly replicate. Our results also speak to the potential impact of measures to increase retail shareholder voting. To explore that question further, we categorize infrequent voters as those who vote sometimes but not all of the time. These voters tend to be far more in favor of environmental and social proposals than are frequent voters, suggesting that, should proposals to increase retail

shareholder voting be adopted, there may be a positive impact on the support for ESG proposals. Ultimately, we conclude that in contrast to the common caricature of retail shareholders as uninformed and apathetic, these investors can and do provide meaningful feedback to firms through the voting process.

Our results provide a new lens for understanding shareholder governance. Shareholders' channels of disciplining management are commonly outlined following Hirschman's (1970) classic framework, as "voice or exit." Investors can "exit" by selling their shares when they are dissatisfied with management or use "voice," that is, engage with the management and the board and use their voting power. The latter mechanism has historically been less of a focus than exit as a disciplinary device for management. The expanding power of institutional investors has changed that emphasis and monitoring by institutional investors was proposed as a solution to the poor monitoring by shareholders (Black (1992)). The advent of mandatory voting disclosure by mutual funds in 2003 spawned a vigorous literature on institutional investor voting. This literature documents the extent to which mutual funds support management recommendations and their propensity to rely on proxy advisory recommendations. These decisions have, in turn, been linked to several fund and firm characteristics, including funds' own governance practices and costs of monitoring, business ties with the portfolio firms, other cross-holdings, peer-effects, and investment horizons. More recently, Bubb and Catan (2019) and Bolton et al. (2019) expand on this work, breaking down the party structure of different mutual funds. Brav et al. (2018) study voting by mutual funds in proxy contests.

On the other hand, barely any empirical research on retail shareholder voting has been conducted, due to lack of data. Individual retail investors generally have small holding stakes in any given firm, and it is costly for them to become informed given the relative size of the capital they have invested. As a result, academics have found that retail shareholders tend to defer to other larger shareholders or management rather than engage with their ownership through voting. As Kastiel and Nili (2016) show, retail investor participation in voting has systematically declined over the past two decades even though this period saw a number of technological, regulatory, and corporate governance changes that were meant to help strengthen retail shareholder participation. Kastiel and Nili (2016) also find that when brokers are not allowed to vote on behalf of beneficial owners who do not provide them with their proxy voting instructions, the overall non-voting rate

increases by 10 percentage points. When they do vote, retail investors have historically voted with management (Stewart (2012), Chasan (2013)).

The evidence provided in this paper is relevant to the renewed focus on the efficacy of monitoring and stewardship by large institutional investors (Coates (2018)). As Gordon and Gilson (2013) trace, a growing movement towards diversification and changing regulations regarding retirement savings in the latter half of the 20th century have led to a change in how Americans save away from individual stock ownership and towards concentrated institutional ownership. This concentrated power has drawn attention to the incentives faced by fund advisors and whether these institutions allocate adequate resources towards monitoring of portfolio firms (Kahan and Rock (2019), Lewellen and Lewellen (2018), Bebchuk and Hirst (2019)). Given retail shareholders' significant ownership in public firms, our study provides an indication of what voting may look like if these shareholders were given more power. Several papers, including Kastiel and Nili (2016) and Gulinello (2010), have pushed for changes to promote greater participation among retail shareholders, and others, such as Zingales and Hart (2019), have argued for shareholder preferences as the ultimate objective function of firms. As Fisch (2017) has argued, retail shareholders have "skin in the game" and will select to monitor and engage only if they are adequately informed, whereas institutional votes are cast by intermediaries. It is therefore critical that we understand whether institutional votes adequately reflect the preferences of their underlying investors. Our study speaks to this question.

The paper is organized as follows. Section 2 provides institutional background on the proxy voting process, how ownership of shares is set up, and how shares are voted. Section 3 describes the retail shareholder voting data. Section 4 presents descriptive statistics on ownership, turnout, and voting. Section 5 presents empirical results of retail shareholders' decisions to vote and the factors associated with their support for shareholder and management proposals. Section 6 concludes.

2. Background

2.1. Institutional Background

This section provides a summary of the proxy voting process, focusing on how ownership of shares is set up and how shares are voted. Figure 1 provides a synthesis of this information.[1]

As shareholders typically do not attend shareholder meetings in person, voting occurs mostly through the use of proxies that are solicited before the meeting. This process of proxy solicitation differs depending upon whether the shares are owned by registered owners or by beneficial owners. *Registered owners* hold securities in certificated form or in electronic form ("book-entry") through a direct registration system, which allows an investor to have his or her ownership of securities recorded by the issuer without having a physical certificate issued. Registered owners are often issuer's management, directors, employees, and its pension fund (Daly (2017), Racanelli (2018)). In contrast to a registered owner, a *beneficial owner* (or, "street name" owner) of the shares held in a custodial account with an intermediary or custodian is considered the holder of a "securities entitlement in a financial asset." This means that the beneficial owner has a pro rata interest in all like securities of the intermediary held in common by all other customers who own the same security.

The Depository Trust Co. (DTC) was created in 1973 to minimize the paperwork involved in record keeping. Most shares are now held in "street name" through the DTC by custodians, usually banks and brokerage firms, and under their title. One estimate is that 75% to 80% of all public issuers' shares are held in street name (Racanelli (2018)). Shares for mutual funds, pension funds, insurance firms, endowments, and trusts are usually held by bank custodians. The DTC holds all the shares of a given institution in fungible bulk, without any subdivision into separate accounts below the level of the DTC's participating entities. The DTC coordinates with the Central Depository (Cede & Co.) that holds shares in bulk in the names of the custodians who are part owners of the DTC. Custodians, also known as "nominees," own a pro rata interest in the aggregate number of shares of a particular issuer held at the DTC, which in turn means that investors own a pro rata interest in the custodian's shares. When an investor sells shares of an issuer from one custodian account to a buyer from another custodian account, Cede then shifts a corresponding

[1] The material in this section draws upon the Securities and Exchange Commission, Concept Release on the U.S. Proxy System (2010), Kahan and Rock (2008), and Fisch (2017).

number of shares of the issuer to the latter custodian account and removes them from the former custodian account. The beneficial owners' name is not available, nor is it recorded.

2.2. How Shares Are Voted

When it is time for a vote, usually during the annual general meeting of the firm, the issuer sets the date for the meeting and the record date.[2] Registered shareholders' right to vote grants them the authority to appoint a proxy to vote on their behalf at the meeting. As their names and addresses are available to the issuer, the issuer directly sends the proxy materials to registered shareholders through the transfer agent. After receiving the proxy materials from the issuer, registered owners vote by executing the proxy card and returning it to the "vote tabulator." A vote tabulator, usually the issuer's transfer agent, is appointed by an issuer to collect and count votes. However, the issuer will sometimes hire an independent third-party vote inspector if needed to oversee contested elections.

The process for soliciting proxies for beneficial owners, on the other hand, is significantly more complex than the solicitation of proxies for registered owners. The issuer sends an inquiry to the DTC, in which it asks for a list of participant custodians who hold shares of the issuer in its account. This "securities position listing" identifies the custodians who have a position in the issuer's securities and the number of securities held by each of them. DTC participants also provide information on the omnibus securities positions that their respondent bank network members hold. The issuer then sends a search card to all the banks and brokers identified by DTC or Cede asking for the number of proxies needed. Brokers must respond to search cards within seven business days, while banks must identify all respondent banks within one business day and indicate the approximate number of beneficial owners holding the issuer's shares directly with that bank within seven business days.[3] Accurately conforming to these requirements can sometimes be a challenge due to a situation called "piggybacking" in which respondent banks keep track of their own customer accounts and larger banks keep record of how many shares they hold for the respondent bank.

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[2] The record date under Delaware General Corporate Law (DGCL) §213 is fixed in advance of any vote and "shall not be more than 60 nor less than 10 days before the date" of the meeting. The individuals who are listed as registered owners as of the record date on the firm's books are entitled to notice of, and to vote at, the shareholder meeting.

[3] Respondent banks are often smaller banks that deposit their clients' holdings with larger bank custodians (Kahn and Rock (2008)).

Brokers and bank custodians send beneficial owners the proxy materials including a request for voting instructions, a "voting instruction form" (VIF), with a third party proxy service provider executing the process.[4] Since the majority of shares of public firms are held by beneficial owners who object to disclosure of their names (objecting beneficial owners ("OBOs"), issuers that wish to communicate directly with them must send information through the investor's custodian bank or broker-dealer, which generally is forwarded on a same-day basis. The SEC rules for "notice and access" permit firms to mail a notice of the internet-availability of their proxy materials instead of mailing a full package of proxy materials. The majority of shareholders receive proxy information electronically through e-mail, depending on the shareholder's indicated preference. Shareholders always have the option to request paper copies of the proxy materials.

Once the beneficial owners receive the VIF from the securities intermediary, they can instruct the intermediary on how to vote their shares (Gumbs, Hamblet, and Stortini (2013)). The VIF does not give the beneficial owner the right to attend the meeting, but he or she can request the appropriate documentation to do so from their intermediary if they so choose. The third party proxy service provider receives the voting instructions from the custodian, verifies receipt, verifies that the signatories have voting authority, executes the proxy on behalf of its custodian principal, and forwards a legal proxy to the vote tabulator. Issuers may also hire proxy solicitors (e.g., Okapi Partners, Innisfree, and Georgeson) when voting returns may be insufficient to meet state quorum requirements. In a contested election, management and the dissident also can employ their own proxy solicitors to identify beneficial owners holding large amounts of the issuers and encourage these shareholders to vote. Solicitation of shares held by retail investors, each owning a small stake, is possible with mass mailing of "fight letters" and marketing materials, along with targeted phone campaigns. Issuers are required to disclose the use, and the cost, of these services in their proxy statements.

As Kahan and Rock (2008) point out, because of the complex chain of custody of shares held beneficially in street name, tabulators may disallow votes of omnibus proxies (which pass

[4] Brokers and banks effectively reassign the proxy authority they receive from the DTC to the third party proxy service provider who executes a legal proxy on their behalf. Broadridge Financial Solutions, Inc. is the most widely-used third-party proxy service provider, processing approximately 80% of the outstanding shares in the United States in fiscal year 2018. See Form 10-K available at: http://www.broadridge-ir.com/financial-information/sec-filings.aspx. Issuers pay for the proxy processing services based on fees set by the New York Stock Exchange and approved by the SEC.

voting rights through the chain of custody) if they are not properly administered. For example, a name change not updated in the shareholder list would result in a break in the chain of custody. Shareholders typically do not have the ability to monitor whether their votes were cast as instructed.[5] Brokers cannot vote uninstructed shares in non-routine matters, so these become nonvotes.[6] Securities lending and shorting can lead to confusion regarding who the beneficial owner of a stock really is. Additionally, there can be imbalances in the system described above that nominee's address. For example, custodian banks may facilitate the return of loaned shares for voting by institutional investors. Broker-dealers apply certain share reconciliation practices to allocate votes among their customer accounts.

2.3. Retail Accounts

Retail investors typically manage their stockholdings through a broker. The different platforms provided by brokers give investors online accounts that allow them to log in and view information about their accounts and different investment vehicles with the broker, as well as execute trades. Other platforms provide retail investors with information on how to vote their shares. Brokers, however, are not required to connect these platforms directly to the retail investors' brokerage accounts. As a result, investors on these platforms must navigate to a different website run by a proxy services provider to submit voting instructions to their broker. For example, ProxyVote.com, run by Broadridge Financial Solutions, is an online platform that enables shareholders to attend shareholder meetings virtually as well as vote through an app. Before each shareholder meeting that the investor is eligible to attend, ProxyVote sends an email with instructions on the process by which the investor can view proxy materials and vote.

[5] Racanelli (2018) cites Richard Grossman, a Skadden, Arps, Slate, Meagher & Flom attorney who states that "It's difficult, if not impossible, for a beneficial shareholder [whose shares are not registered in their own name] to find out if the vote was cast as instructed and properly counted." Grossman also states that "I am not aware of any obligations on the part of the various intermediaries to tell you."

[6] Kahan and Rock (2008) describe the problem of votes being voted by brokers if they do not receive instructions within ten days in advance. This is no longer the case on the New York Stock Exchange. NYSE Rule 452 was amended in 2009 so that contested elections, non-contested elections for directors, and "vote no" campaigns are all now "non-routine" and broker discretion is not permitted for such non-routine matters. The recent rule change has led, however, to an increase in nonvotes (Gulinello (2010)). For firms that have adopted a majority voting standard, the brokers' inability to vote without instructions from their client increases management's burden of achieving a majority. This can lead to what Hirst (2017) refers to as a frozen charter. In his sample, broker votes represented 10.4% of the outstanding shares of corporations and for those corporations, particularly those with high supermajority requirements for certain charter amendments, these firms were unable to reach those requirements without broker votes. As a result, they were unable to amend certain parts of their charters, even where directors and shareholders strongly supported such amendments and their charters were frozen.

Shareholders may cast their votes online, through mail-in ballots prior to the meetings, or by telephone (voice response system) when they have indicated an interest in doing so.

As emphasized by Fisch (2017), unlike institutional investors, retail investors cannot currently provide customized voting guidelines to their broker and thus they must indicate a voting decision for each individual item on the proxy. If they fail to submit their instructions to their broker, then their votes are categorized as broker nonvotes and it is then incumbent on the broker to determine whether and how votes should be submitted on "routine" matters, where routine is determined by New York Stock Exchange Rule 452 and approved by the SEC.

There has recently been a push to increase retail investors' participation, especially through the use of digital platforms. *Enhanced broker internet platforms* ("EBIPs") are a relatively recent development that enable retail investors to submit voting instructions from their broker's website rather than having to navigate to another site to do so. As of mid-2017, 24 broker-dealers comprising 55% of all accounts held in street name offered such mailboxes. Brokerage firms and banks can also enable retail investors to receive communications and act on them through third party cloud solutions such as Google Drive, Dropbox, Evernote, Amazon Cloud Drive and Microsoft One Drive.[7] The SEC has attempted to further facilitate the increased use of these and other electronic forums through its rulemaking.[8] There has also been a push toward educating retail investors on the proxy voting process. On their investor site www.investor.gov, the SEC provides educational materials about the proxy voting process for the average retail investor. A number of issuers and shareholder organizations also provide links to this information.

3. Data

3.1. Data Description

3.1.1. Shareholder Voting Data

U.S. retail shareholders, whether registered or beneficial, do not publicly report their shareholdings or voting decisions. As a result, it has been challenging to conduct empirical

[7] https://www.broadridge.com/_assets/pdf/key-statistics-and-performance-ratings-for-the-2017-proxy-season.pdf.

[8] "In recent years, a number of our proxy-related rulemakings have been spurred by the Internet and other technological advances that enable more efficient communications. For example, we have adopted the "notice and access" model for the delivery of proxy materials, as well as rules to facilitate the use of electronic shareholder forums," Securities and Exchange Commission, Concept Release on the U.S. Proxy System (2010), (page 5).

research on their voting decisions. In this study, we utilize a novel dataset of retail shareholder votes spanning the calendar years of 2015 through 2017. The data is provided to us under a confidentiality agreement by Broadridge Financial Solutions, Inc. and contains all annual or special meetings in that three-year period for firms for which it serves as the service provider, constituting 17,937 meetings for 6,782 firms over the three-year period.

For each firm meeting, the data contains the voting records, including failures to vote, for each retail shareholder account that has voting rights in the firm as of the record date of the meeting. The data defines an account as "retail" if the account does not use Broadridge's online proxy voting product for institutional investors and financial advisers (i.e., ProxyEdge) or does not come from third-party vote agents (through Broadridge's Consolidated Data Feed). Non-US shareholder accounts are not included; rather, their votes are aggregated into a single observation for each meeting, allowing us to observe only the aggregate number of non-US retail shareholder votes cast. All data provided to us by Broadridge was first anonymized by Broadridge so that individual investor accounts are unidentifiable. Broadridge assigned a unique code (the key to which Broadridge retained) so that voting could be tracked across firms and over time without revealing to the researchers any data on account numbers, names, or street addresses.

A retail investor account held through a broker is associated with that broker through an anonymized broker ID (the key to which Broadridge retained). Thus, if an individual holds an individual account with a broker, a joint account with her spouse with that same broker, and an individual account with a different broker, we observe these as three separate accounts. Each meeting-account level observation includes the firm's name and CUSIP, the record date and meeting date of the meeting, the number of shares the individual held in the firm as of the record date of the meeting, management's recommendations on each of the proposals at the meeting, the shareholder's votes on each of the proposals at the meeting, the shareholder's zip code, and the full text of the proposal as written on the proxy statement. To further protect shareholder identity, Broadridge excludes data whenever there is only one shareholder in a zip code. We observe that only a very small number are de-identified in the data, representing 6.5% of the 112 million account-year observations. Votes to abstain are also included. In total, the data contains approximately 461 million account-meeting level observations. Proposal descriptions are contained in a separate dataset from the retail voting data, requiring a merge of the two datasets.

3.1.2. Public Firm Data

We use six sources for public firm data. We obtain shareholder proposal level data from the ISS Voting Analytics database including, for each proposal, a description of the proposal, the proposal sponsor, the total voting results, and the ISS recommendation. We obtain additional proposal level data from SharkRepellent, which duplicates some ISS data and allows for error correction, and also contains more information on the proposal sponsor and the type of proposal.

For securities data, we use data from CRSP. For each month t, we calculate the lagged annual return for the one-year period ending in month $t-1$ by compounding one-month holding period returns over the 12-month period. We calculate annual abnormal returns for that same period as the yearly return minus the value-weighted annual return from CRSP. We also calculate the one-year dividend yield as the difference between buy and hold return including dividends and buy and hold return excluding dividends.[9] We winsorize the annual returns, annual abnormal returns, and the dividend yield at the 1% and 99% levels.

For accounting data, we use data from Compustat. We calculate Book Equity as the difference between stockholders' equity and preferred stockholders' equity, with certain substitutions in the case of missing variables, as described in Daniel and Titman (2006).[10] Book to Market ratio as the ratio between Book Equity and Market Equity, where Market Equity is the product of price (PRCC_F) and shares outstanding (SHROUT). Tobin's Q is the ratio of Market Value of Assets to book value of assets (AT), in which the Market Value of Assets is defined as the sum of book value of assets (AT) and the Market Equity minus the Book Equity, as in Bhojraj et al. (2017). ROA is the ratio of EBIDTA to assets (AT), as in Brav et al. (2018). We winsorize the Book to Market Ratio, Tobin's Q, and ROA at the 1% and 99% levels.

[9] The difference between returns including and excluding dividends is described on the CRSP website as the "Income Return", available at http://www.crsp.com/products/documentation/crsp-calculations.

[10] We slightly alter the code provided on the WRDS website, available at https://wrds-www.wharton.upenn.edu/pages/support/applications/risk-and-valuation-measures/market-book-mb-ratio. Stockholders' equity uses Compustat variable SEQ or, if it's missing, the sum of Total Common Equity (CEQ) and Preferred Stock Par Value (PSTK) or, if either of those are missing, total assets (AT) minus liabilities (LT) minus minority interest (MIB). Book equity is defined as (i) stockholder's equity, minus (ii) preferred stockholder's equity, which is equal to preferred stock redemption value (PSTKRV) or, if missing, preferred stock liquidating value (PSTKL) or, if missing, preferred stock carrying value (PSTK), plus (iii) if not missing, balanced sheet deferred taxes (TXDITC), minus (iv) if not missing, the FASB106 adjustment (PRBA from the Compustat Pension Annual dataset).

We obtain institutional ownership percent from the Thomson Reuters Stock Ownership dataset, which uses reports on Form 13F. We use data from 2014 to 2016, and merge with a one-year lag. We calculate market equity size quintiles using breakpoints from Fama and French.[11]

3.1.3. Zip Code Income Data

We obtain adjusted gross income data at the zip code level from the IRS website.[12] Since zip code data only goes to 2016, we use one-year-lagged data. We combine the IRS zip code sets for 2014, 2015, and 2016, using the version for each year which does not break out the data into Adjusted Gross Income quintiles. From this dataset, we obtain the zip code Adjusted Gross Income (variable A00100).

3.2. Merging Procedures

To combine the proposals in the ISS Voting Analytics database with those in the retail shareholder set, we merge the ISS Voting Analytics database at the meeting level with the retail shareholder data by 6-digit CUSIP, meeting date, and record date.

We merge at the proposal level using the order of the proposals within a meeting and their textual descriptions from the retail shareholder voting data and ISS Voting Analytics. Appendix A1 describes the proposal matching process in detail. Within matched meetings, the retail voting sample and ISS Voting Analytics have roughly identical proposal slates, with one important exception: for 72% of meetings with director elections, the retail voting sample reports the number of returned votes on the director elections but not the actual votes on each individual director. As a result, we exclude these director election proposals from analyses of substantive voting decisions but do include them in analyses of the decision whether or not to cast a vote. Otherwise, we find that the two datasets have essentially identical proposal slates within matched meetings. The remaining minor inconsistencies are in how the two firms treat withdrawn proposals, other minor items that appear on the proxy ballot such as checkboxes to indicate a lack of shareholder conflict of interest, as well as a handful of proposals that appear to be erroneously missing from ISS Voting Analytics. Appendix A2 provides additional information regarding erroneous ISS Voting

[11] Available at Ken French's website at: http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.
[12] Available at https://www.irs.gov/statistics/soi-tax-stats-individual-income-tax-statistics-zip-code-data-soi.

Analytics information that we found in the course of matching the retail voting proposal data to ISS Voting Analytics.

We categorize the ISS Voting Analytics proposals into categories using its general descriptions field, and for certain descriptions, the full proxy statement text. We then merge additional proposal-level information from SharkRepellent. Unlike ISS Voting Analytics and the retail voting data, SharkRepellent data is unordered, so we match by voting results and, using text matching, by proposal categories. Appendix A2 sets forth our method for matching.

We merge the retail shareholder voting data with CRSP at the 6-digit CUSIP-month level, with the record-date month in the shareholder voting data matching the data month for CRSP. We restrict the analysis from this point onwards to firms in CRSP with common share codes 10 or 11, with a valid share price and shares outstanding information as of the month of the record date. Following the merging with CRSP and ISS Voting Analytics and dropping of certain rows, the final dataset has 53,946 proposals from 10,066 meetings, with 4,725,390,872 account-proposal level observations.

Using linking procedures from the Compustat/CRSP Merged Dataset, which links Compustat gvkeys to CRSP permnos, we merge at the firm level with Compustat. Each CRSP month is matched with the final Compustat fiscal year on or prior to that month. We merge using 6-digit CUSIP with the Thomson Reuters stock ownership; each observation is merged with Thomson Reuters data from the calendar year prior. We merge the IRS zip code income data with the retail shareholder data at the zip code-calendar year level, lagging the zip code data by one year since data was not available for 2017 at the time of our analysis.[13]

Table 1, Panel A summarizes the percent of firms in the retail sample that we are able to match to CRSP in each of the three-year sample periods. We report coverage by NYSE size quintiles. We achieve coverage of 86% in 2015, 89% in 2016, and 90% in 2017, with higher coverage for larger firms. Of the firms in CRSP that do not have retail voting data, many are small firms that also do not appear in ISS Voting Analytics. Table 1, Panel B provides the coverage of the retail shareholder voting data of the intersection of ISS Voting Analytics and CRSP. The overall coverage is high at 96% in 2015, 99% in 2016, and 98% in 2017, with higher coverage for

[13] Thomson Reuters has since added its data for year 2017. We intend to update the analysis using 2017 data in a future draft.

larger firms. Finally, we also report on the intersection of institutional ownership in the firms covered in the retail data. To this end, we merge the retail voting data with institutional 13F ownership data from Thomson Reuters at the 6-digit CUSIP-year level. Table 1, Panel C provides the coverage of retail voting firms in CRSP by institutional ownership quintile. For the subset of firms in CRSP that also appear in the Thomson Reuters 13F data, we achieve a high coverage of 95%, 96%, and 97%, respectively, in each of 2015-2017.

4. Descriptive Statistics

4.1. Illustrative Example of Retail Voting

To give the reader an initial impression of the scope of the retail voting data we present detailed information on voting derived from an anonymized issuer's annual meeting during our sample period. The meeting included a wide range of proposals for investors to vote on. It thus allows us to highlight variation in voting which we later explore in more detail. Shareholders were asked to vote on the election of director nominees, an advisory vote to approve executive compensation, ratification of the independent auditors, and additional shareholder proposals.[14]

Table 2 presents three key aspects of the voting process. Panel A provides a summary of the methods of proxy delivery to retail shareholders. Firms and shareholders have choice regarding how materials are delivered to shareholders. In regards to delivery we summarize the following four options, as coded in our retail voting data:

A firm may choose between sending a (i) hard copy or (ii) notice and access. If the firm chooses hard copy, then a complete copy of proxy materials including the proxy statement, annual financials, and ballot or vote instruction form is sent to the shareholder via the postal service. If instead the firm chooses notice and access, then it mails the shareholder a notice to announce the meeting with information on how to get complete packages of proxy materials or use the service provider's online website for voting. If the firm chooses notice and access, a shareholder can choose to receive the full package, an election which carries through to all subsequent meetings. Following the convention in our dataset, we code situations in which the shareholder chooses to receive the full copy of materials as (iii) full package. Shareholders may also elect (iv) e-mail, in which case links are delivered via e-mail to the shareholder to direct the shareholder to either the

[14] The number of total management and shareholder proposals was between nine and fifteen. We report results for nine of them in randomized order to preserve the issuer's anonymity.

online voting website or to brokerage firms' investor mailboxes for voting. Consents to electronic delivery are typically made through a broker-dealer's website. Once made, they are applied to all proxy information distributions for securities in that individual's account. Under the rules for notice and access, requests for full packages can be made by going to the Internet voting website, calling a toll-free number, or sending a request by e-mail.

The full package and hard copy delivery methods are associated with accounts that own a larger number of shares per account and, importantly, are more likely to cast a vote as indicated by the rightmost column. For example, accounts receiving delivery by full package and hard copy own an average of 1,416 and 2,539 shares with a voting response rate of 73% and 33.2%, respectively, whereas accounts receiving material via email or notice own 506 and 326 shares on average, and vote at a much lower rate of 20.4% and 7.3%, respectively. In all, retail shareholders at this issuer hold over one billion shares, comprising roughly one-third of shares outstanding, with an overall response rate of 31.2%, consistent with the response rates in the broader sample that we document below. The bottom of panel A provides information on the voting method. Two features are noteworthy. First, shareholders that did not vote hold 68.6% of the total retail votes. These shareholders, not surprisingly, own 562 shares per account, on average, lower than other accounts that participate in the voting. Second, among the shareholders who choose to vote, voting by hard copy accounts for about one half of all retail votes, followed by use of the internet.

Table 2, Panel B provides the voting results for items on the ballot. For each proposal we report the corresponding management and ISS recommendations, where "F" indicates voting for a given proposal, "N" indicates voting no/against a proposal, and "A" indicates abstaining from a vote. The column "Retail Votes" provides the percent of votes cast by retail shareholders, and within the votes cast, the percent of votes for and against.

Consider first the votes cast for the election of the director nominees. As described above, this meeting is one in which the data does not provide the breakdown of retail votes in favor or those withheld per director. Hence, we can only report the percent of votes cast by retail investors – which in this case was 30.3% of the 1.242 billion retail shares. This low rate of participation compares to a much higher percentage of over 60% of votes cast by all shareholders which also includes retail votes (unreported).

We report the retail voting outcomes for the remaining proposals. The advisory vote to approve executive compensation, known as "say on pay," received support from 88.5% of retail

shareholders. This proposal received a similar rate of support in the issuer's 2016 meeting, at 86.9% (unreported). ISS supported the proposal in 2016 but recommended against it in 2017. Despite that change, retail support remained relatively constant, indicating a lack of influence of ISS over retail voting behavior. In contrast, in unreported results, we document that the fraction of all shares voting in support of the proposal in 2017 is approximately 70%, which is strikingly low relative to the 92.1 percent average for say-on-pay proposals for firms in the Russell 3000.[15] The lack of support reflects the ISS recommendation against the proposal: in the previous annual election in 2016, the ISS-supported proposal garnered approximately 90% support. Hence, the negative ISS recommendation appears to be associated with a large swing in voting by shareholders other than retail. The remaining proposals are shareholder-sponsored. One key commonality is retail shareholders' decision to vote along management's recommendation against all proposals. This is in stark contrast to the large variation in support among all shareholders (unreported).

Last, we report in panel C of Table 2 information on the range of voting decisions in the sample. As noted above a large number of shares were not voted. Slightly more than 1.5 million accounts comprising 86.1 percent of all retail accounts did not vote, accounting for 68.8 percent of retail shareholder votes. Note that this non-voting rate is slightly higher than that reported in Panel A since some shareholders returned their ballots but did not indicate a vote for any proposals. Although we count over 15,000 different permutations of votes cast across all of the proposals, voting with management accounts for 20.8 percent of retail votes. The remaining permutations comprise a small fraction of votes.

4.2. Summary Statistics

Table 3 provides a description of proposals included in the retail voting data. The number of proposals increases from 16,595 in 2015 to 17,505 in 2016 to nearly 20,000 in 2017. Roughly 200 each year are environmental or social proposals. Shareholder-sponsored proposals account for a small fraction of all proposals at about 500 per year. Of management-sponsored proposals ISS supports roughly 90% each year whereas ISS supports roughly 75% of shareholder-sponsored proposals each year.

[15] See 2017 Proxy Season Review: Compensation, by Subodh Mishra, Institutional Shareholder Services, available at: https://corpgov.law.harvard.edu/2017/10/06/2017-proxy-season-review-compensation/.

Table 4, panel A, provides a description of the retail shareholder accounts in the sample. For each account-year, we add up the reported equity stakes to produce account-year level data. We also use account zip codes to merge in zip-code level IRS income data. Accounts hold roughly four securities on average, and the median account holds two securities, similar to the evidence in Barber and Odean (2000). Panel A shows a large spread between the median account (roughly $13,000 in value) and the average account (roughly $130,000 in value). The account dividend yield is 2% for each year in the sample. We calculate yearly market abnormal return on an account as the buy and hold return on the securities in the account, assuming the account held all securities for the past year. We then deduct the CRSP value weighted index return. The market adjusted abnormal return of accounts in the sample is near zero in the aggregate. Finally, the accounts come from substantially higher-income zip codes than the national average, based on zip code adjusted gross income from the IRS website.

In Panel B we report retail investor characteristics by sorting accounts into quintiles by dollar value. The lowest quintile account value is $629, holding, on average, less than two securities, whereas the top quintile account value is nearly $600,000, holding ten securities, on average. The market adjusted abnormal return increases monotonically as we move from the first to the fifth quintile sort. Dividend yield remains constant at two percent. Next, although we do not observe the entire trading records of these accounts, we proxy for how frequently accounts are turning over their assets based on the rate at which accounts invest and divest in portfolio firms. Firm Purchase Rate is the proportion of firms currently owned that were added to the portfolio in the past year and is given by $FPR_{at} = \frac{N^{new}_{a,(t-1,t)}}{N_{at}}$, and Firm Sale Rate is the proportion of firms owned last year that were removed from the portfolio in the past year and is given by $FSR_{at} = \frac{N^{sold}_{a(t-1,t)}}{N_{at-1}}$. For the sample from 2015-2017, we observe turnover estimates for 2016 and 2017. For those individuals with an account holding shares in year t but not in year $t+1$ (or $t-1$, respectively), and the firm itself is in the sample in year $t+1$ ($t-1$, respectively), we impute that the account holds 0 shares in $t+1$ ($t-1$, respectively), and use that imputation for our portfolio turnover calculations. In 2016, 35% of the firms in an account portfolio are new additions (29% in 2017), and 30% (26% in 2017) of firms the previous year were sold. Finally, voting participation increases from 3% at the smallest quintile to 16% in the largest account value quintile. Figure 2 displays some of these results.

Table 5 provides information at the firm-level on retail shareholder ownership. Retail ownership is higher for the smaller companies. Overall retail ownership is 30%; domestic retail ownership is 26%; and average ownership in the smallest quintile of companies is 40%. The table reports the average and median number of investors per firm in thousands. Unsurprisingly, larger firms are owned by more investors. While the median firm in the bottom size quintile is held by about two thousand accounts, the median firm in the top size quintile is held by roughly 120 thousand accounts each year. Figure 3 displays these results. Firms with a higher dividend yield also tend to be held by more investors. Online Appendix Table A1 includes a breakdown of ownership by industry. Telecommunications firms tend to be more widely held than other industries, perhaps reflecting the size of some of the major technology firms. Utilities and energy also see high ownership likely reflecting their high dividend yield.

Table 6 looks at voting at the ballot level, since voters tend to submit either a full ballot or not return one at all. This table exploits the fact that, unlike for firm overall vote totals reported on Form 8-K, for the retail voters we can observe the entire ballot cast. We describe retail voting results at two levels of aggregation: by retail shares, which is weighted towards the largest shareholders, and informs more about firm outcomes, and by retail accounts, which are more reflective of the small retail accounts that comprise the bulk of accounts but a minority of shares.

Retail voters cast 32% of shares owned, reflecting the decision of only 11% of accounts to participate. 76% (59%) of shares cast (accounts participating, respectively) support management on all proposals in a ballot, showing that retail voters are likely to oppose management on at least one proposal, and small retail accounts even more so. Even when a meeting is entirely comprised of management proposals, 30% of retail ballots, by account, contain at least one deviation, and that number rises to nearly 50% when there is a shareholder proposal on the ballot. Retail accounts deviate 33% of the time when there is full agreement between management and ISS, and 46% of the time when there is at least one disagreement.

Table 7 contains additional breakdowns of voting results. Percent Cast reflects the turnout, defined as the fraction of outstanding shares voted either For or Against on a proposal. Percent For represents support, defined as the fraction of votes For divided by the total cast For and Against. The left-hand set of columns, labeled All Votes, represents the total voting results as reported by ISS Voting Analytics and SharkRepellent. The middle set of columns, labeled Retail

Votes, represents the total retail voting results from the retail shareholder sample. The rightmost set of columns, labeled Retail Accounts, represents the retail voting results weighting each account equally instead of by number of shares.

Panel A shows voting by sponsor. Non-retail shareholders are far more likely to cast votes as can be inferred from the 78% of all shares that are cast. Retail shareholders, on the other hand, cast only 30% of shares owned. These votes were cast by 11% of retail accounts, indicating that retail shareholders with small equity stakes are less likely to cast votes. As measured by shares owned, retail shareholders are somewhat less supportive of management proposals than non-retail, and substantially less supportive of shareholder proposals. But small retail accounts are less opposed to shareholder-submitted proposals. The variation in turnout and support by firm size can be seen in Panel B of Table 7. Retail shareholder turnout decreases with firm size from 35% for firms in the smallest size quintile to 27% for the largest quintile, whereas turnout by all shareholders increases with firm size from 72% in the smallest quintile to 78% in the largest. Retail shareholders tend to support management proposals to the same extent as the broader shareholder universe, although support is lower for small retail accounts holders. The bottom part of Panel B reports on shareholder proposals. The fraction of shares cast by retail shareholders declines from a high of 41% for firms in the smallest quintile to 26% for firms in the largest size quintile. Shareholder proposals in small firms receive a substantial degree of retail and non-retail support but support declines at a higher rate for retail shareholders as we move to larger firms. Importantly, small account shareholders tend to support shareholder proposals more so than large account shareholders and this difference is largest in proposals submitted at large capitalization firms.

Panel C shows retail voting by proposal categories. Retail turnout is highest for management proposals regarding mergers and acquisitions (at a 45% turnout rate), whereas for non-retail turnout remains fairly similar across categories. Retail support for M&A transactions is higher than for other management proposals, as is non-retail support. As in Panel A, shareholder proposals (environmental, social, and governance) receive weaker support from retail shareholders relative to the boarder universe of shareholders. The support rates measured at the retail account level are higher than those reported when support is measured at the shareholder level. This shows that for all three shareholder proposal categories, the small account retail shareholders provide stronger support than the larger account shareholders.

Next, Panel D of Table 7 shows voting split by sponsor and management and ISS recommendations. The overall electorate shows a large difference in voter support between management proposals that are supported by ISS and those opposed by ISS. We find a more muted variation in retail shareholder support between ISS-supported and ISS-opposed proposals, possibly reflecting the greater access to ISS recommendations by institutional shareholders. The difference is even starker within shareholder proposals. For the overall electorate, management-opposed proposals supported by ISS have 37% support and those opposed by ISS have 8% support. But for retail voting, that gap is smaller: 18% in favor of those supported by ISS to 14% in favor of those opposed by ISS. Consistent with the statistics in Panel B, small retail accounts are more supportive of shareholder proposals than are the overall retail vote, but still show little preference for ISS support versus opposition, with a gap of 3% (29% to 26%) for retail accounts.

Next, we report how retail voting varies by voter and firm characteristics in Table 8. We split the retail voting sample by above-median and below-median account value for the year. Low-value accounts are highly unlikely to vote. However, conditional on voting, low-value accounts are far more likely to support shareholder proposals, and less likely to support management proposals relative to high account value shareholders. The rightmost columns in the table provide information on turnout and voting by firm size. Firms in the smallest size tercile see far more support for shareholder governance proposals and less support for shareholder social proposals. Overall, larger firms receive more support for management proposals and less support for shareholder proposals.

The Online Appendix provides additional evidence linking other shareholder and firm attributes to retail voting. Table A3 compares frequent to infrequent voters. We limit the comparison to accounts that have at least five voting opportunities over the 3-year sample and that voted at least once, and classify those with below-median voting rates as infrequent and with above-median voting rates as frequent. The median voting rate in this group was 0.5. The voting behavior of infrequent voters is of special interest, since, should regulatory changes be made that promote increased retail participation, the preferences of these voters may take on additional weight. We find that, whereas frequent voters tend to vote consistently across all proposal types, infrequent voters cast their ballots for major transactions far more than they do for other proposal types. Infrequent voters are also far more supportive of all three types of shareholder proposals than are frequent voters. Online Appendix A4 provides double sorts by account value and firm

size. We again observe that turnout decreases with firm size whereas it increases with account value. The gap in turnout between high and low account value is largest for small firms. Support for management is highest among those with high account value and support for shareholder proposals is highest among those with low account value.

5. Empirical Analysis of Retail Voting

In this section, we study the correlates of voting turnout and voting decisions conditional on turnout. We conduct the analysis at two levels. First, we evaluate turnout at the ballot level and voting decisions at the proposal level, with all accounts aggregated. We aggregate accounts to permit comparison of retail voting with overall voting totals, which are publicly disclosed only in aggregate. Second, we evaluate turnout at the account-ballot level and voting decisions at the account-proposal level. This second analysis allows us to include account-level variables or account fixed effects.

The analysis must be understood in accordance with its specifications. We begin with a cross-sectional ballot-level analysis of turnout. This analysis is designed to reveal what *kind* of firms tends to have higher turnout. Such tendency may be driven by the composition of its electorate or by omitted variables, and we do not take a stand as to the reason for such relationship. Next, we add firm fixed effects. This regression shows how a firm's turnout, as compared to its 3-year average, is associated with covariates for that firm (as compared its 3-year average). The inclusion of firm-fixed effects narrows the scope of omitted variables and, in particular, captures all time-invariant firm omitted variables. To the extent that firm-level variables are correlated across time and shareholders take into account events prior to the most recent year, then these regressions underestimate the true coefficients. As before, any results could also be driven by changes in the composition of the electorate.

Next, we conduct a cross-sectional ballot-account-level analysis. These specifications weight an account equally regardless of whether it owns a small company or a large one, or whether it owns one share or one million shares, in contrast to the ballot-level specifications which give greater weight to the account that owns more shares. This analysis is designed to reveal what *kind* of account tends to have higher turnout. As before, such tendency may be driven by the types of companies owned, but could also be influenced by omitted variables. We control for firm-level variables, but these variables have a different interpretation than they do in the ballot-level

regressions. Because the largest companies have far more shareholders (see Table 5), they dominate the equal-weighted regressions. Thus, the correlation of turnout with, say, log market equity will be dominated by a handful of massive firms.[16]

In the final set of specifications we add in account fixed and account-firm fixed effects. For the selected subset of accounts that appear multiple times, these specifications control for changes in composition, revealing changes in how the accounts vote as compared to the 3-year norms for those accounts. As before, we emphasize caution in interpreting the results. The subset of accounts that appear multiple times are those that chose not to sell their holdings and thus are not necessarily representative of the entire population. We subsequently analyze support for management proposals (and shareholder proposals) in the same fashion as we do turnout, with the same caveats: first, a cross-sectional proposal-level analysis, then a proposal-level analysis with firm-fixed effects, and then an account-proposal level analysis.

5.1. Meeting Turnout

We begin by evaluating the choice of whether to cast a vote at the meeting level. Since the decision to cast a vote is made at the meeting-ballot level, we define the cast rate for a meeting m as $CastPercent_m = \frac{VotesCast_m}{VotesOutstanding_m} * 100$, and estimate specifications of the form:

$$CastPercent_{mct} = \alpha + \beta_1 X_{ct} + \beta_2 Z_{mct} + \theta_t + \varepsilon_{mct} \quad (1)$$

Where m indexes meetings, c indexes firms, t indexes years, X_{ct} is a vector of firm-level variables, Z_{mct} is a vector of firm-meeting-level variables, and θ_t is year fixed effects.

Table 9, Panel A displays the results estimating Equation (1). Columns (1) through (3) contain results for the overall shareholder electorate, and columns (4) through (6) contain results for the retail voter sample only. In columns (1) and (4), we include as independent variables only yearly abnormal returns (for the period beginning 13 months prior to the record date and ending 1 month prior to the record date), firm characteristics (each demeaned by the average across all firms in the sample, for easier interpretation of the regression intercept), and quarter and industry fixed effects. The intercepts in columns (1) and (4) are interpretable as the voting rate for a firm with

[16] We are in the process of modifying the estimation to appropriately cluster the standard errors. The standard errors reported in these regressions are likely substantially under-estimated.

average log market equity, return on assets, Tobin's Q, and Book to Market, and zero abnormal returns. Columns (2) and (5) include ballot-level covariates: whether any proposals on the ballot are opposed by ISS, whether any shareholder proposals appear on the ballot, and a control for the number of proposals on the ballot. Columns (3) and (6) include firm fixed effects, and remove some of the firm level variables.

Column 1 of Table 9 shows overall ballot casting results. Column (1) shows that for a firm with the average characteristics and zero lagged abnormal return, investors vote on 79.7% of shares. Larger firms have greater turnout, with a 100% larger firm associated with a 1.47 percentage point increase in turnout. In Column (2), ISS opposition to any proposal on the ballot is associated with a significantly lower turnout among all voters, by 1.73 percentage points. Any shareholder proposal on the ballot is associated with a significantly lower turnout of 1.7 percentage points. Abnormal returns have a small positive association with turnout, though it is not robust to the addition of covariates. The inclusion of firm fixed effects in column (3) results in a change of the sign on shareholder proposals—a shareholder proposal on the ballot is associated with 2.3 percentage points higher turnout.

In Columns (4) through (6) we focus on retail shareholders. Column (4) shows that retail have a turnout rate of 32.81% for a firm with zero abnormal returns and average log market equity, return on assets, Tobin's Q, and Book to Market. In comparison to all shareholders, retail investors turn out less for large firms. For retail voters, an increase in lagged yearly abnormal return of 100% is associated with a four percentage point increase in turnout. This effect remains, though attenuated, in Column (6) with firm fixed effects. In Column (5), neither ISS opposition to a proposal nor the appearance of a shareholder proposal on the ballot appears to be associated with retail turnout, though Column (6) shows that with firm fixed effects, a proposal on the ballot opposed by ISS is positively associated with retail turnout. Finally, given the evidence in Tables 7 and 8 that retail turnout varies with firm size, we extend the analysis to explore heterogeneity by firm size in Table 10. Column (2) shows that for retail voters, the positive association between yearly abnormal performance and turnout is large for small firms but is weakened for large firms. In Column (1), for the universe of all voters, we do not observe the declining sensitivity to lagged abnormal returns.

5.2. Account-Level Regressions on Turnout

To further evaluate individual voting decisions, we explore the data at the individual account-ballot level.[17] We begin by estimating the specification in Equation (2) below, designed to further shed light on how individuals decide whether to cast ballots:

$$Cast_{amct} * 100 = \alpha + \gamma_1 H_{at} + \gamma_2 G_{act} + \beta_1 X_{ct} + \beta_2 Z_{mct} + \theta_t + \varepsilon_{amct} \quad (2)$$

in which a indexes accounts, m indexes meetings, c indexes firms, and t indexes years. $Cast_{amct}$ is a binary equal to 1 if account a cast a ballot for meeting m, for firm c, in year t. α_a are account fixed effects, G_{act} are account-firm level variables, and H_{at} are account-level variables. We multiply by 100 so it is on the same scale as Equation (1).

Columns (1) and (2) of Table 11 contain the results of estimating Equation (2), which is comparable to Column (5) of Table 9 except at the individual account level rather than the ballot level. As described at the beginning of this section, the coefficients on firm-level variables are dominated by a handful of massive firms (due to the equal weighting by account). The results are generally similar to Column (5) of Table 9 except for the following: the coefficient on yearly abnormal return flips from strongly positive to roughly zero. This is driven by the difference between large and small firms: as discussed earlier, large firms with many shareholders have a roughly zero association between turnout and yearly returns (and these firms predominate our account-level regressions), while small firms with few shareholders have a strong positive correlation between turnout and yearly returns (and these firms predominate our firm level regressions). Several of our other variable coefficients move towards zero in the account-level regressions, and baseline voting by account is only 11.3 percent. In Column (2), we add in account-level variables. Stake size (in dollar value) is positively associated with turnout. Holdings in *other* companies are also positively associated with turnout.

Next, in order to explore factors within-individuals, we remove account-level variables and add in individual-fixed effects. We estimate Equation (3) and show the results in Column (3) of Table 11. In Column (4) of Table 11, we include account-firm fixed effects.

[17] For account-level regressions, due to the large sample size and required computing power, we assume homoscedastic standard errors. We are in the process of estimating these regressions using appropriately clustered standard errors. The t-statistics reported in the regressions are likely over-estimates due to the homoscedasticity assumption.

$$Cast_{amct} * 100 = \alpha + \phi_a + \gamma G_{act} + \beta_1 X_{ct} + \beta_2 Z_{mct} + \theta_t + \varepsilon_{amct} \quad (3)$$

In the cross section, retail shareholders with larger stakes in the firm are substantially more likely to turn out (Column (2)). This result is attenuated but still holds in the account fixed effects specifications—an account that has acquired more of a security is more likely to vote on that security (Columns (3) and (4)). Similarly, in the cross section, those with larger stakes in other firms are more likely to turn out (Column (2)). However, the account fixed effects specifications show that those who add wealth in other securities over time are not more likely to vote on a security (Columns (3) and (4)).

As discussed in Section 4.1, the delivery method is substantially correlated with turnout. Column (2) shows that those who receive the full materials by the firm's choice (the omitted variable in the regressions, which we code as Hard Copy) are far more likely to vote than those who receive notice and access or e-mail, by 3 and 7 percentage points, respectively. Those who receive the full package by their own choice, which we code as Full Package, are far more likely to vote than Hard Copy, by 44 percentage points. These results are qualitatively similar when account fixed effects are included (Column (3)) or account-firm fixed effects (Column (4)).[18] We conclude that, with respect to turnout, individual holdings and delivery method are strongly associated with turnout, both cross-sectionally and within-firm.

5.3. Support for Management and Shareholder Proposals

We next turn to analyzing support for management and shareholder proposals, conditional on casting a ballot. For a proposal p, we define $ForPercent_p = \frac{VotesFor_p}{VotesFor_p + VotesAgainst_p} * 100$, the percent of votes that are cast as for votes out of the total votes cast for and against. We estimate models of the form:

$$ForPercent_{pct} = \alpha + \beta_1 X_{ct} + \beta_2 Z_{pct} + \theta_t + \varepsilon_{pct} \quad (4)$$

[18] We are currently extending the analysis to include firm variables and account fixed effects to examine the extent to which the cross sectional results we document earlier may be attributable to composition effects. Since in the current analysis, firm variables in our account-level setup are dominated by a few large capitalization companies, we do not examine the role of firm variables. Similarly, we plan in the next draft to separately analyze the delivery method, since this variable, as it currently appears in our regressions, is endogenous to firm performance.

where p indexes proposals. All proposal-level regressions in this section are clustered at the meeting level.

Table 12 contains the results estimating Equation (4). As with Table 9, Columns (1) through (3) contain results for the overall shareholder electorate, and Columns (4) through (6) contain results for the retail voter sample only. Columns (1) and (4) are parsimonious so that the intercept is interpretable as the voting rate for a firm with average log market equity, return on assets, Tobin's Q, and Book to Market, and zero abnormal returns and Columns (2) and (5) include additional proposal-level covariates.

Panel A of Table 12 is limited to management proposals. Column (1) shows that for a firm with average firm characteristics with zero lagged abnormal returns, 94.7% of shares cast in the overall electorate vote in support of management. The support of the overall electorate for management is weakly associated with recent firm performance and it attenuates with additional controls. Investors are more supportive of larger firms: a 100% increase in firm size is associated with 0.5 percentage point increase in support, though that decreases to 0.3 percentage points with additional covariates in Column (2). The stronger shareholder support for larger firms is consistent with the analysis in Table 10 in which we estimate shareholder support for management proposals at the proposal level. Columns (3) and (4) of Table 10 also show that shareholder voting on management proposals in smaller firms is consistently more sensitive with respect to firm performance than in larger firms, as seen by the higher coefficients on yearly abnormal returns, return on assets, and Tobin's Q.

We report results for retail voting on management proposals in Table 12, Panel A, Columns (4) through (6). Column (4) shows that the baseline support for management is somewhat lower than for all voters, at 93% for a firm of average firm characteristics and zero abnormal returns. Retail support is even more strongly associated with firm size, with a 100% increase in firm size associated with a 0.7 percentage point increase in support. Retail votes are also associated to a much greater degree with recent returns, with a yearly abnormal return of 100% associated with a 2.76 percentage point increase in management support. These results are consistent with retail voters serving a monitoring role in poorly performing firms. In unreported analysis, we estimate Equation (4) and include on the right-hand side both yearly abnormal return and yearly nominal return, with no additional covariates. We find that, between the two, abnormal returns are

significant, with a coefficient of 0.06 and a t-statistic of over 8, as compared to insignificantly negative for nominal returns. Consistent with retail voters being attentive investors, it is solely abnormal returns that drive voting behavior; nominal returns appear to make no difference.

Column (2) of Table 12, Panel A shows that ISS opposition is associated with strongly decreased overall support, by 21 percentage points. The association for retail voters, in Column (5), is much lower, at 5 percentage points. This is consistent with the evidence presented earlier in Panel D of Table 7. Since retail voters generally do not have access to ISS recommendations in advance of votes, this weak association is likely attributable to common factors driving both ISS recommendations and shareholder votes, though we cannot rule out that some shareholders are aware of ISS recommendations in advance of voting.

We examine shareholder proposals that were opposed by management in Panel B of Table 12. The sample of proposals is quite small relative to management proposals. For a firm with zero lagged yearly abnormal returns and average firm characteristics, shareholder proposals have 44% support for all shareholders (Column (1)) and only 26% support from retail shareholders (Column (4)). Larger firms see less support for shareholder proposals from both the overall electorate and retail shareholders. Unlike for management-supported proposals, recent performance does not appear to be associated with support for management-opposed proposals, although with firm fixed effects, the association turns negative.

To further evaluate the divergence of the retail vote from the overall vote, we define the retail gap as $Gap_{pct} = ForPercent_{pct}^{retail} - ForPercent_{pct}^{overall}$, the difference in percent support by retail and the overall vote. We estimate equations of the form:

$$Gap_{pct} = \alpha + \beta_1 X_{ct} + \beta_2 Z_{pct} + \theta_t + \varepsilon_{pct} \quad (5)$$

In estimating Equation (5), we cluster at the firm meeting level. We report the results from these regressions in Online Appendix Table A2. Retail voters' support for management proposals is higher in larger firms and more strongly related to past abnormal returns relative to the overall electorate. On the other hand, ISS opposition is associated with much greater loss of support in the overall vote than in the retail vote (a difference of 15.6 percentage points). Overall, we find that retail investor decisions do not correlate strongly with ISS recommendations but correlate very strongly with recent performance. When we limit the sample to shareholder proposals opposed by

management, we find that with respect to ISS recommendations there is an even larger gap between the overall electorate and the retail electorate of 26 percentage points. This analysis underscores the degree to which retail investors vote differently from institutional investors.

Having established in Table 12 a strong association between recent performance and support for management, we also ask how performance history is associated with voting choice. For each meeting, we estimate Equation (4), with the same variables as in Column (5) of Table 12, but replace the yearly abnormal return with the seven yearly abnormal holding returns prior to the record date. We also include the yearly abnormal holding returns subsequent to the meeting date as a placebo test. Figure 4 contains the coefficients and confidence intervals on the yearly abnormal holding returns. Abnormal returns are significantly positively associated with support for management for the five years leading up to the record date, suggesting that retail shareholders have a fairly long "memory" when voting. As we would expect, returns following the meeting date are not significantly associated with support for management.

5.4. Account-Level Regressions on Voting Choice

Next we estimate Equation (6) at the account-proposal-level on the subset of ballots that were cast:

$$For_{apct} * 100 = \alpha + \gamma_1 H_{at} + \gamma_2 G_{act} + \beta_1 X_{ct} + \beta_2 Z_{pct} + \theta_t + \varepsilon_{apct} \quad (6)$$

in which p indexes proposals and For_{apct} is a binary variable equal to 1 if account a cast a For vote on proposal p in meeting m, for firm c, in year t, and 0 for a vote Against. We limit the sample to proposals supported by management. Columns (1) and (2) of Table 13 contains our regression results, and are comparable to Column (4) of Table 12 Panel A, except at the individual account level rather than the proposal level. Column (1) keeps the same covariates as Table 12 for consistency; Column (2) adds in account-level covariates. As described earlier, the coefficients on firm-level variables are dominated by a handful of massive firms (due to the equal weighting by account).

Next, we include account fixed effects to test the intensive margin of voting effects.

$$For_{apct} * 100 = \alpha + \phi_a + \gamma G_{act} + \beta_1 X_{ct} + \beta_2 Z_{pct} + \theta_t + \varepsilon_{apct} \quad (7)$$

The results of our regression estimating Equation (7) appear in Column (3) of Table 13. Column (4) contains a regression that includes account-firm fixed effects rather than account fixed effects.

The strong positive coefficient on yearly abnormal returns holds through all specifications—a shareholder is more likely to support a firm when the firm has had strong recent returns, and this finding is not driven by the composition of shareholders or firms. Similarly, the negative association between ISS opposition and shareholder support is consistent at around negative six percentage points in all specifications.

As discussed in conjunction with Table 8, Column (2) shows that in the cross section, shareholders with larger accounts—both of the firm in question and in other securities--are more supportive of management. An increase in one's holdings of a firm is correlated with an increase in support for management (as shown in Columns (3) and (4)). Changes to wealth in other securities over time do not substantially correlate with propensity to vote for management.

6. Conclusions

In this paper we study U.S. retail shareholder voting using a detailed sample of anonymized voting records over the period 2015-2017. We find that retail voters tend to vote more when their ownership stake in the portfolio firm is higher. Retail support for management is correlated with recent performance, consistent with informed choice. We also document notable differences in the voting decisions of retail vs. institutional investors, particularly within the ESG shareholder proposals. Our results demonstrate that retail shareholders can potentially serve an important role in the monitoring and governance of firms, and one that institutional investors may not perfectly replicate. Ultimately, we conclude that in contrast to the common caricature of retail shareholders as uninformed and apathetic, these investors can and do provide meaningful feedback to firms through the voting process. However, their preferences may not be adequately captured and reflected by the voting decisions of institutional investors who manage assets on their behalf.

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Table 1. Coverage of the Retail Voting Sample in CRSP and ISS Voting Analytics

This table reports information on the proportion of the CRSP and ISS Voting Analytics universes of firms contained within the retail voting sample. The CRSP universe is limited to those firms that are not missing information on price or number of shares and have share codes 10 or 11. The retail dataset is limited to those firms for which we have both proposal data and matching shareholder voting data. Panel A reports, for each size quintile by year, the number of firms (by 6-digit CUSIP) in CRSP and the subset of those CRSP firms that are in the retail data and have a meeting in that year. Firm size is calculated as the product of CRSP variables csho and prc, and quintiles are determined using the NYSE size breakpoints from Ken French's website. Panel B reports, for each size quintile by year, the number of firms (by 6-digit CUSIP) that are in both ISS Voting Analytics and CRSP and the subset of those firms that are in the retail data and match to at least one of ISS Voting Analytics meetings in the given year. Panel C reports, for each institutional ownership quintile by year, the number of firms in CRSP (by 6-digit CUSIP) and the subset of those CRSP firms that are in the retail data and have a meeting in that year. Institutional ownership quintiles are calculated using data from Thomson Reuters, and Panel C is limited to those firms that have institutional ownership reported by Thomson Reuters.

Panel A: Number of Firms Relative to the CRSP Universe, by Size Quintile

Size Quintile:	2015			2016			2017		
	CRSP	CRSP & Retail Data	Coverage Percent	CRSP	CRSP & Retail Data	Coverage Percent	CRSP	CRSP & Retail Data	Coverage Percent
Smallest	1,964	1,629	82.94	1,909	1,616	84.65	2,001	1,734	86.66
2	752	645	85.77	701	641	91.44	607	558	91.93
3	455	408	89.67	467	435	93.15	450	419	93.11
4	392	346	88.27	387	357	92.25	362	346	95.58
Largest	343	314	91.55	336	323	96.13	329	318	96.66
Total	3,906	3,342	85.56	3,800	3,372	88.74	3,749	3,375	90.02

Panel B: Number of Firms Relative to the ISS Voting Analytics Universe, by Size Quintile

Size Quintile:	2015			2016			2017		
	CRSP & ISS	CRSP, ISS & Retail Data	Coverage Percent	CRSP & ISS	CRSP, ISS & Retail Data	Coverage Percent	CRSP & ISS	CRSP, ISS & Retail Data	Coverage Percent
Smallest	1,614	1,556	96.41	1,596	1,569	98.31	1,646	1,606	97.57
2	655	626	95.57	610	599	98.2	569	561	98.59
3	409	396	96.82	419	418	99.76	434	421	97
4	371	356	95.96	361	360	99.72	375	371	98.93
Largest	327	313	95.72	322	321	99.69	316	309	97.78
Total	3,376	3,247	96.18	3,308	3,267	98.76	3,340	3,268	97.84

Panel C: Number of Firms Relative to the CRSP Universe, by Institutional Ownership Quintile

Institutional Ownership Quintile:	2015			2016			2017		
	CRSP & TR	CRSP, TR & Retail Data	Coverage Percent	CRSP & TR	CRSP, TR & Retail Data	Coverage Percent	CRSP & TR	CRSP, TR & Retail Data	Coverage Percent
Smallest	646	600	92.88	654	602	92.05	657	623	94.82
2	645	608	94.26	654	624	95.41	657	628	95.59
3	646	611	94.58	654	635	97.09	657	640	97.41
4	645	620	96.12	654	635	97.09	657	642	97.72
Largest	645	614	95.19	654	641	98.01	657	644	98.02
Total	3,227	3,053	94.61	3,270	3,137	95.93	3,285	3,177	96.71

Table 2. Illustrative Annual Meeting Example

This table provides information on retail voting at an anonymized issuer's annual meeting during the sample period. Panel A summarizes the methods of proxy delivery to retail shareholders and the means by which shareholders returned their votes. There are four methods of delivery. If a shareholder elects (i) *e-mail*, links are delivered via e-mail to the shareholder to direct the shareholder to either the online voting website or to the brokerage firms' investor mailboxes for voting. If the shareholder does not elect e-mail, then the firm may choose between sending a (ii) *hard copy* or (iii) *notice and access*. If the firm chooses hard copy, then a complete copy of proxy materials (proxy statement, annual financials, and ballot or Vote Instruction Form) is sent via the postal service. If instead the firm chooses notice and access, then it mails the shareholder a notice to announce the meeting together with information on how to obtain a complete package of proxy materials or use the service provider's online website for voting. If the firm chooses notice and access, a shareholder can choose to receive the complete package of proxy materials, an election which carries through to all subsequent meetings involving that account. We code cases in which the shareholder chooses to receive the full copy of materials as (iv) *full package*. Panel B provides the voting results for the items on the ballot. To preserve the anonymity of the firm some of the shareholder proposals have been removed. For each of the remaining proposals we report the corresponding management and ISS recommendations. "F" indicates voting in favor of a given proposal, "N" indicates voting no/against a proposal, and "A" indicates abstaining from a vote. The column, Retail Votes, provides the percent of votes cast by retail shareholders, and within the votes cast, the percent of votes for and against. Panel C provides information on the range of voting decisions by retail shareholders for this meeting. Out of 16,681 observed permutations, including the proposals that have been omitted from the panel, we report those combinations of voting that were used most frequently. We report the number of retail accounts voting the specific combination, the number of shares voted, and the percent of shares accounted for by the specific combination relative to all retail shares.

Panel A: Methods of Proxy Delivery and Vote Returns

Proxy Delivery Method	# of Shares	# of Accounts	Mean # Shares per Account	Share Voting %
Full Package	203,378,545	143,587	1,416	73.0%
Hard Copy	408,438,592	160,873	2,539	33.2%
E-mail	437,093,454	863,938	506	20.4%
Notice	193,138,321	592,794	326	7.3%
Total	1,242,048,913	1,761,192	705	31.2%

Voting Method	# of Shares	# of Accounts	Mean # Shares per Account	Share Voting %
Hard Copy	203,910,890	144,928	1,407	16.4%
Internet Proxy Vote	126,836,144	55,130	2,301	10.2%
Investor Mailbox	25,541,657	21,412	1,193	2.1%
Telephone	25,224,002	15,583	1,619	2.0%
Mobile Proxy Vote	7,616,283	6,542	1,164	0.6%
Consolidated Data Feed	1,216,582	823	1,478	0.1%
Did Not Vote	851,703,355	1,516,774	562	68.6%
Total	1,242,048,913	1,761,192	705	100.0%

Panel B: Individual Proposal Voting Results

	Proxy Item	Mgmt. Rec.	ISS Rec.	Retail Votes % Cast	Retail Votes % For	Retail Votes % Against
	Management proposals:					
1	Individual Director Elections	F	F	30.3	N/A	N/A
2	Advisory Vote to Approve Executive Comp.	F	N	29.7	88.5	11.5
3	Ratification of Independent Auditors	F	F	30.6	98.6	1.4
	Shareholder proposals:					
4	ESG-Related Proposal	N	F	30.0	12.5	87.5
5	Restrict Precatory Proposals	N	N	29.4	7.0	93.0
6	Independent Chairman	N	F	29.8	15.4	84.6
7	Increase Capital Distributions	N	N	29.6	8.6	91.4
8	Special Shareholder Meetings	N	F	29.5	9.5	90.5
9	Report on Lobbying	N	F	30.0	14.3	85.7

Panel C: Permutations of Votes Cast Across Proposals

Proposals:									# of Accounts	% of Accounts	# of Shares	% of Shares
Did not vote									1,516,905	86.1%	854,516,673	68.8%
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**				
F	F	F	N	N	N	N	N	N	125,094	7.1%	258,064,223	20.8%
F	F	N	N	N	N	N	N	N	3,833	0.2%	5,731,872	0.5%
F	F	F	F	F	F	F	F	F	5,436	0.3%	4,395,938	0.4%
F	F	F	N	N	F	N	N	N	2,691	0.2%	4,177,826	0.3%
F	F	F	A	A	A	A	A	A	2,246	0.1%	2,838,453	0.2%
				…					…	…	…	…
F	F	F	A	A	N	A	F	F	1	0.0%	0.1	0.0%
									1,761,192	100.0%	1.242 Billion	100.0%

Table 3. Shareholder Proposals in the Retail Voting Dataset

This table reports information on the content of proxies in the retail voting dataset. The sample is limited to retail dataset proposals that were matched with data from ISS Voting Analytics and CRSP. The table reports the number of proposals of each type. Proposal categories are based on item descriptions from ISS Voting Analytics (see Appendix A3). Sponsor, management recommendation, and ISS recommendation are from ISS Voting Analytics.

	2015	2016	2017
All Proposals	16,595	17,505	19,852
Shareholder:			
Environmental	76	91	83
Social	116	132	130
Governance	324	288	225
Management:			
Elect Director	8,628	9,164	9,684
Financial Statements/Auditor	2,977	3,016	3,001
Governance - Board & Shareholder Rights	219	262	216
Governance - Comp	3,515	3,681	3,901
Governance - Other	162	211	229
Major Transactions - Issuance, Buyback, Distribution, Stock Split, or Conversion	118	127	1,812
Major Transactions - M&A	270	295	330
Other	146	196	200
Shareholder:	515	510	438
Management Against & ISS For	388	345	299
Management Against & ISS Against	111	142	123
Management:	15,962	16,868	17,602
Management For & ISS For	14,687	15,437	16,016
Management For & ISS Against	1,272	1,425	1,575

Table 4. Retail Investor Characteristics

This table reports information on retail investors covered in the retail dataset. Retail characteristics were generated as follows: first, for each firm meeting, we use each account's holdings on the record date as a "snapshot" of that account's yearly holdings in the firm. We remove duplicate meetings of the same firm in a single year. Second, for each account, we aggregate the holdings in the portfolio at the account-year level. Number of firms in portfolio is defined as the number of firms in a given year for which the account holds shares on the firm's record date. Account value is defined as the sum of an account's individual firm stake values, where individual stake values are calculated as the product of the number of shares in the firm held by the account, as provided by the retail shareholding data, and the price of the stock at the end of the record-date month, as provided by CRSP. Dividend yield is defined as the difference between the firm buy and hold returns with dividends and without dividends (ret and retx from CRSP, respectively). The account-year-level composite dividend yield is calculated as the account's dividends per firm aggregated over the firms held by that account. Yearly market abnormal return for an account is calculated as the buy and hold return on the securities in the account, assuming the account held all securities for the past year. We then deduct the CRSP value weighted index return. Firm purchase rate and sale rate are the portion of portfolio firms that have been added or removed in the past year, respectively. To evaluate characteristics of the home area of the accounts in the sample, we obtain adjusted gross income data at the zip code level from the IRS website. Zip Code Mean AGI refers to the mean Adjusted Gross Income in the account's zip code (variable A00100 in the IRS zip code data). Voting Rate is defined as the number of ballots cast divided by number of voting opportunities. Panel A includes summary statistics by year. In panel B we first sort accounts into quintiles by account value and then report the average of each of the characteristics described in panel A including the voting rate.

Panel A: Retail Investor Characteristics by Year

	2015			**2016**			**2017**		
	Avg.	Med.	Stdev	Avg.	Med.	Stdev	Avg.	Med.	Stdev
Num. of firms in portfolio	4.01	2.00	6.93	4.17	2.00	7.28	4.23	2.00	7.67
Account value	134,919	13,805	13,794,189	124,905	12,995	12,637,171	135,304	13,717	13,499,970
Dividend Yield	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.09
Market Abnormal Return	0.00	0.00	0.23	0.00	0.02	0.28	0.02	-0.03	0.33
Zip Code Mean AGI	103,226	77,363	87,933	106,350	79,792	89,986	105,600	80,765	85,058

Panel B: Average Retail Investor Characteristics by Account Value

	Account Value Quintile				
	Smallest	2	3	4	Largest
Num. of firms in portfolio	1.49	1.95	2.69	4.49	10.07
Account value	629	4,353	14,148	43,537	595,657
Dividend Yield	0.02	0.02	0.02	0.02	0.02
Market Abnormal Return	-0.04	0.01	0.02	0.02	0.03
Firm Purchase Rate	0.35	0.33	0.32	0.31	0.29
Firm Sale Rate	0.29	0.30	0.30	0.28	0.25
Zip Code Income	91,118	98,426	103,056	108,602	125,374
Voting Rate	0.03	0.05	0.07	0.09	0.16

Table 5. Retail Investor Ownership Characteristics

This table reports information on ownership characteristics by retail shareholders. The sample is limited to the retail dataset proposals that were matched with data from ISS Voting Analytics and CRSP. Firm size is calculated as the product of CRSP variables csho and prc, and quintiles are determined using the NYSE size breakpoints from Ken French's website. For the tercile sort by dividend yield, we merge data from Compustat by 6-digit CUSIP and record-date month, merging in the fiscal year data of which the record-date month is a part. "Retail Ownership" is the percentage of outstanding shares of the firm held by domestic retail investors in the sample.

	2015				2016				2017			
	# Investors (thousands)		Retail Ownership (%)		# Investors (thousands)		Retail Ownership (%)		# Investors (thousands)		Retail Ownership (%)	
Size quintile:	Avg.	Med.	Avg.	Med.	Avg.	Med.	Avg.	Med.	Avg.	Med.	Avg.	Med.
Smallest	4	2	40	34	4	2	39	34	5	2	35	33
2	8	4	18	14	10	5	19	15	10	5	17	14
3	16	9	15	12	16	9	15	12	17	9	15	11
4	31	19	14	12	30	18	13	11	34	21	14	11
Largest	267	110	16	15	286	118	16	15	297	125	16	14
Dividend yield quintile:												
No dividends	12	4	28	22	14	4	28	22	15	5	28	23
Small	40	5	21	15	35	5	21	15	33	6	19	13
Medium	86	9	33	20	104	10	31	19	87	8	22	19
Large	86	8	27	21	96	7	27	20	139	9	26	21
Full Sample	35	5	28	20	38	5	27	19	39	5	25	20

Table 6. Retail Voting by Meeting

This table reports voting results at the ballot level. % Cast is the proportion of ballots cast as a proportion of the number of shares outstanding. % Voting Only With MGMT refers to ballots that entirely match management recommendations. "% At Least One Against MGMT" refers to ballots with at least one vote that deviates from management recommendations. The columns with header "Retail Votes" are at the shareholder vote level while the columns with header "Retail Account" are at the retail account level and weight each account equally. Rows relating to takeover defenses use SharkRepellent classifications and are limited to those observations that matched with SharkRepellent. Firm size is from CRSP.

	Retail Votes			Retail Accounts		
	% Cast	% Shares Voting Only With MGMT	% At Least One Against MGMT	% Cast	% Accounts Voting Only With MGMT	% At Least One Against MGMT
All Meetings	32	76	24	11	59	41
Proposal sponsor/type:						
Meeting is 100% management proposals	34	82	18	11	70	30
At least one shareholder proposal	30	69	31	12	52	48
At least one shareholder prop (environmental)	29	69	31	12	52	48
At least one shareholder prop (social)	29	67	33	12	51	49
Annual Meeting	32	76	24	11	58	42
Special Meeting	38	79	21	15	74	26
No disagreements between MGMT and ISS	32	80	20	12	67	33
At least one disagreement between MGMT and ISS	32	74	26	11	54	46
No Takeover Defense-Related Proposal	34	79	21	12	63	37
≥1 Takeover Defense-Related Proposal	28	68	32	11	52	48
≥1 Proposal Increasing Takeover Defenses	52	85	15	10	64	36
≥ 1 Proposal Reducing Takeover Defenses	28	68	32	11	52	48

Table 7. Retail Voting and Meeting Proposals

This table reports information on retail voting limiting the sample to retail dataset proposals that were matched with data from ISS Voting Analytics and CRSP. Each entry represents the average of all firm votes in the category. "All Votes" contains the overall voting results from ISS Voting Analytics, with corrections from SharkRepellent and CRSP, as described in Appendix A2. "Retail Votes" contains the domestic retail voting results from the retail voting data. "Retail Accounts" contains the domestic retail voting results, but at the account level. % Cast refers to the sum of the number of votes for and against divided by the number of potential votes as reported by ISS Voting Analytics. For and against votes exclude say-on-pay frequency votes and certain director votes for which the only retail voting data is on the number of votes cast. % For is the number of votes for divided by the number of votes cast. Panel A shows voting sorted by the identity of the sponsor, management or shareholder. Panel B shows voting by sponsor and firm size quintile. Panel C shows retail voting by proposals categories. Panel D shows voting sorted by sponsor and management and ISS recommendations.

Panel A: Retail Voting by Proposal Sponsor

	All Votes		**Retail Votes**		**Retail Accounts**	
	% Cast	% For	% Cast	% For	% Cast	% For
All	78	93	30	91	11	88
Management	78	95	31	94	11	90
Shareholder	73	31	27	19	11	30

Panel B: Retail Voting by Firm Size Quintile

	All Votes		**Retail Votes**		**Retail Accounts**	
	% Cast	% For	% Cast	% For	% Cast	% For
Management sponsored:						
Size Quintile:						
Smallest	72	93	35	91	12	86
2	83	95	31	94	11	89
3	83	96	29	95	11	90
4	82	96	27	95	11	92
Largest	78	97	27	96	11	93
Shareholder sponsored:						
Size Quintile:						
Smallest	68	46	41	45	12	52
2	79	48	33	29	10	42
3	80	39	29	23	12	35
4	77	37	27	23	11	34
Largest	72	28	26	16	11	27

Panel C: Retail Voting by Proposal Category

	All Votes		Retail Votes		Retail Accounts	
	% Cast	% For	% Cast	% For	% Cast	% For
Management:						
Elect Director	78	97	29	96	11	93
Financial Statements/Auditor	87	99	32	98	11	96
Governance - Board & Shareholder Rights	77	94	33	92	12	89
Governance - Comp	74	91	31	88	11	79
Governance - Other	77	92	40	91	14	86
Major Transactions - Issuance, Buyback, Distribution, Stock Split, or Conversion	71	89	32	83	10	74
Major Transactions - M&A	77	98	45	95	18	91
Other	77	81	34	90	12	88
Shareholder:						
Environmental	69	24	25	14	12	24
Social	70	20	26	15	11	28
Governance	76	38	29	22	11	33

Panel D: Retail Voting by Management and ISS Recommendations

	All Votes		Retail Votes		Retail Accounts	
	% Cast	% For	% Cast	% For	% Cast	% For
Management-sponsored:						
Management For & ISS For	79	97	30	94	11	90
Management For & ISS Against	72	76	34	88	10	81
Shareholder-sponsored						
Management Against & ISS For	74	37	28	18	11	29
Management Against & ISS Against	71	8	26	14	11	26

Table 8. Retail Voting by Proposal Type, Voter Account Value, and Firm Size

This table provides voting results sorted by above-median and below-median account values for the year and by firm size terciles. Account value is the sum of the account's individual firm stake values, where the stake value is the number of shares owned by the account multiplied by the record-date month end share price. Firm size is calculated as the product of CRSP variables csho and prc, and terciles are determined using the NYSE size breakpoints from Ken French's website. Results are reported on the basis of shares rather than on the basis of accounts.

	Account Value				**Firm Size Terciles**					
	Low		High		Smallest		Middle		Largest	
	% Cast	% For	% Cast	% For	% Cast	% For	% Cast	% For	% Cast	% For
Shareholder:										
Environmental	6	30	25	14	30	13	27	16	25	14
Social	6	35	26	15	24	9	24	21	26	15
Governance	6	38	29	22	40	46	30	27	27	19
Management:										
Elect Director	6	93	29	96	34	93	28	95	27	96
Financial Statements/Auditor	8	96	33	98	34	98	30	98	28	98
Governance - Board & Shareholder Rights	9	89	34	92	39	91	29	94	27	91
Governance - Comp	8	80	32	88	34	86	29	90	27	90
Governance - Other	13	86	41	91	42	89	39	95	30	94
Major Transactions - Issuance, Buyback, Distribution, Stock Split, or Conversion	11	74	34	84	32	82	33	90	28	92
Major Transactions - M&A	15	90	46	95	51	95	41	95	34	93
Other	10	91	35	90	37	89	29	93	30	94
Sponsor:										
Management	7	90	31	94	33	92	27	94	26	96
Shareholder	6	36	28	19	38	42	29	24	26	17

Table 9. Retail Shareholder Turnout

This table reports regression results on shareholder voting turnout aggregated across accounts at the ballot level. The dependent variable is the number of votes cast divided by the number of outstanding votes, multiplied by 100. Yearly abnormal returns refers to the firm buy and hold return for the period 13 months to 1 month prior to the record date, minus the buy and hold value weight market return from CRSP. Dividend yield is defined as the difference between the firm buy and hold return with dividends and without dividends (ret and retx from CRSP, respectively). Log market equity is the log of market equity (price time shares outstanding from CRSP, as of the record-date month). Tobin's Q is book value plus market equity minus book equity, divided by book value. ROA (Return on Assets) is EBITDA divided by total assets. Book to Market ratio is Book Equity divided by Market Equity. Log market equity, Return on Assets, Tobin's Q, and Book to Market are each demeaned over all firms in the sample (so a value of 0 corresponds to the average log market equity, ROA, Tobin's Q, or Book to Market, respectively). *Any ISS Opposed* is a binary equal to one if any of the proposals on the ballot were opposed by ISS. *Any SH* is a binary equal to one if any of the proposals on the ballot were shareholder proposals. *ISS Opposed* is a binary variable that equals 1 if ISS has a recommendation other than "For" for the proposal; Columns (1)-(3) report results using all shareholders whereas columns (4)-(6) report results using retail votes in the sample. Columns (3) and (6) include firm fixed effects. All regressions include year-quarter and industry fixed effects and are clustered at the firm meeting level. Standard errors are in parentheses. *, **, and *** represent significance at the 0.05, 0.01, and 0.001 levels, respectively.

Cast Percent	(1) All Voters	(2) All Voters	(3) All Voters	(4) Retail Voters	(5) Retail Voters	(6) Retail Voters
Yearly Abnormal Returns	1.60**	0.65	0.85	4.12***	4.06***	1.47**
	(0.56)	(0.52)	(0.49)	(0.65)	(0.65)	(0.51)
Dividend Yield	-56.69***	-49.36***	-16.04	2.05	3.89	-10.65
	(13.27)	(12.45)	(17.88)	(16.50)	(16.60)	(20.14)
Log Market Equity	1.47***	2.79***		-1.62***	-1.43***	
	(0.14)	(0.16)		(0.16)	(0.19)	
Return on Assets	3.32	2.77		3.18*	3.17*	
	(1.87)	(1.51)		(1.46)	(1.45)	
Tobin's Q	0.19	-0.06		-0.49**	-0.53**	
	(0.14)	(0.13)		(0.18)	(0.18)	
Any ISS Opposed		-1.73***	-1.10**		0.92	1.77***
		(0.45)	(0.46)		(0.58)	(0.49)
Any Shareholder Prop		-1.70**	2.23**		1.70	0.85
		(0.57)	(0.75)		(0.94)	(0.80)
Number of Proposals		-0.96***	-0.48***		-0.26***	-0.21**
		(0.05)	(0.08)		(0.08)	(0.09)
Intercept	79.70***	85.58***	81.77***	32.81***	33.87***	33.92***
	(0.23)	(0.35)	(0.64)	(0.29)	(0.56)	(0.53)
Observations	7,791	7,791	9,416	7,791	7,791	9,416
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	No	Yes	Yes	No
Firm FE	No	No	Yes	No	No	Yes

Table 10. Retail Shareholder Turnout and Voting by Firm Size

This first two columns in this table provide regression results on shareholder voting turnout aggregated across accounts at the ballot level. The dependent variable in Columns (1) and (2) is the number of votes cast in favor or opposed divided by the number of outstanding votes, multiplied by 100. Columns (3) through (4) of this table report regression results on shareholder voting support for management proposals at the proposal level. The dependent variable in Columns (3) through (4) is the number of votes in favor divided by the sum of the number of votes for and the number of votes against, multiplied by 100. Yearly abnormal returns refers to the firm buy and hold return for the period 13 months to 1 month prior to the record date, minus the value weight market return from CRSP. Dividend yield is defined as the difference between the firm buy and hold return with dividends and without dividends (ret and retx from CRSP, respectively). Log market equity is the log of market equity (price time shares outstanding from CRSP, as of the record-date month). Tobin's Q is book value plus market equity minus book equity, divided by book value. ROA (Return on Assets) is EBITDA divided by total assets. Book to Market ratio is Book Equity divided by Market Equity. Log market equity, Return on Assets, Tobin's Q, and Book to Market are each demeaned over all firms in the sample (so a value of 0 corresponds to the average log market equity, ROA, Tobin's Q, or Book to Market, respectively). Columns (1) and (3) report results using all votes, whereas columns (2) and (4) report results using retail votes in the sample. All regressions include year-quarter and industry fixed effects. In columns (1) and (2), standard errors are clustered at the firm level; in columns (3) and (4) they are clustered at the firm meeting level. Standard errors are in parentheses. *, **, and *** represent significance at the 0.05, 0.01, and 0.001 levels, respectively.

	(1)	(2)	(3)	(4)
Dependent Variable: Cast Percent	**Turnout All Ballots**		**Voting on Management Proposals**	
	All Voters	Retail Voters	All Voters	Retail Voters
Yearly Abnormal Returns	0.75	3.04***	0.52*	2.63***
	(0.47)	(0.61)	(0.26)	(0.37)
Log Market Equity x Yearly Abnormal Returns	0.05	-1.21***	-0.30**	-0.81***
	(0.28)	(0.34)	(0.12)	(0.16)
Dividend Yield	-50.46***	7.01	9.59	3.47
	(14.09)	(16.49)	(7.27)	(6.46)
Log Market Equity x Dividend Yield	-44.76***	-5.95	-3.48	-13.34***
	(7.30)	(7.33)	(2.80)	(2.40)
Log Market Equity	1.63***	-1.57***	0.49***	0.71***
	(0.13)	(0.15)	(0.05)	(0.05)
Return on Assets	1.85**	1.87**	0.86	0.63
	(0.71)	(0.62)	(0.50)	(0.39)
Log Market Equity x Yearly Abnormal Returns	-1.70***	-0.86**	-0.23	-0.42*
	(0.39)	(0.36)	(0.18)	(0.21)
Tobin's Q	0.20	-0.52**	0.15**	0.14
	(0.15)	(0.18)	(0.06)	(0.10)
Log Market Equity x Tobin's Q	-0.06	0.18*	-0.08**	-0.10**
	(0.09)	(0.08)	(0.03)	(0.04)
Book to Market	0.32	-0.55	-0.17	-0.76**
	(0.36)	(0.57)	(0.10)	(0.32)
Log Market Equity x Book to Market	0.22	0.05	-0.16**	-0.25**
	(0.17)	(0.23)	(0.05)	(0.09)
Intercept	80.60***	33.22***	94.88***	93.41***
	(0.24)	(0.31)	(0.11)	(0.13)
Observations	7,791	7,791	35,891	35,866
Sample	All ballots	All ballots	Mgmt. Proposals	Mgmt. Proposals
Quarter FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Firm FE	No	No	No	No

Table 11. Account-Level Turnout

This table reports regressions with observations at the account-meeting level. The dependent variable is equal to 1 if the account cast a ballot and 0 otherwise (multiplied by 100). The table is limited to observations that appear in Compustat. Yearly abnormal returns refers to the firm buy and hold return for the period 13 months to 1 month prior to the record date minus the value weight market return from CRSP. Dividend yield is defined as the difference between the firm buy and hold return with dividends and without dividends (ret and retx from CRSP, respectively). Log market equity is the log of market equity (price time shares outstanding from CRSP, as of the record-date month). Tobin's Q is book value plus market equity minus book equity, divided by book value. ROA (Return on Assets) is EBITDA divided by total assets. Book to Market ratio is Book Equity divided by Market Equity. Log market equity, Return on Assets, Tobin's Q, and Book to Market are each demeaned over all firms in the sample (so a value of 0 corresponds to the average log market equity, ROA, Tobin's Q, or Book to Market, respectively). *Any ISS Opposed* is a binary equal to one if any of the proposals on the ballot were opposed by ISS. *Any SH* is a binary equal to one if any of the proposals on the ballot were shareholder proposals. Delivery Method lists dummy variables for the four methods by which a proxy package may be delivered to an account, with "Hard Copy" as the omitted variable. *Log Account Value* is the log of: the total account value for that account that year defined as the sum across that account's firms of the product of share price and number of shares owned, less the stake value in the individual firm, plus one. *Log Account Firms Owned* is the log of the number of firms owned by the account that year. *Log Zip Code AGI* is the Adjusted Gross Income one year prior in the account's zip code. All columns include quarter fixed effects; Columns (1) through (3) include industry fixed effects; Column (3) includes account fixed effects; and Column (4) includes Account-Firm fixed effects. Standard errors are in parentheses. We assume homoscedastic standard errors. Regressions with account or account-firm fixed effects omit intercepts.

Cast (Binary)	(1)	(2)	(3)	(4)
Yearly Abnormal Returns	-0.241	-0.654	-0.122	0.0639
	(0.008)	(0.007)	(0.004)	(0.006)
Dividend Yield	97.7	48.5	10.7	0.681
	(0.122)	(0.116)	(0.078)	(0.211)
Log Market Equity	-0.0148	-0.445	0.0285	
	(0.001)	(0.001)	(0.001)	
Return on Assets	0.142	-0.129	-0.0667	
	(0.005)	(0.004)	(0.003)	
Tobin's Q	-0.134	-0.278	-0.0859	
	(0.003)	(0.001)	(0.001)	
Book to Market	-0.421	0.235	0.0701	
	(0.002)	(0.003)	(0.002)	
Any ISS Opposed	-0.171	0.302	0.311	0.16
	(0.004)	(0.004)	(0.002)	(0.004)
Any Shareholder Prop	-0.168	0.024	-0.16	-0.147
	(0.005)	(0.005)	(0.003)	(0.005)
Number of Props	-0.0557	-0.0105	-0.0365	-0.095
	(0)	(0)	(0)	(0.001)
Log Stake Value		1.48	0.434	0.399
		(0.001)	(0.001)	(0.004)
Log Account Value		0.31	0.007	0.0355
		(0.001)	(0.001)	(0.002)
Log Account Firms Owned		0.239	0.29	0.311
		(0.002)	(0.005)	(0.007)
Log Zip Code AGI		-1.58		
		(0.003)		
Delivery Method				
Full Package		43.7	20	20.4
		(0.009)	(0.016)	(0.019)
Notice		-7.03	-5.55	-5.65
		(0.007)	(0.004)	(0.009)
E-mail		-3.41	-6.9	-7.06
		(0.007)	(0.009)	(0.012)
Intercept	11.3	15.3		
	(0.005)	(0.033)		
Observations	$3.4 * 10^8$	$3.1 * 10^8$	$3.4 * 10^8$	$3.6 * 10^8$
Quarter FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	No
Account FE	No	No	Yes	No
Account-Firm FE	No	No	No	Yes

Table 12. Support for Management and Shareholder Proposals

This table reports regression results on shareholder voting support at the proposal level. Panel A is limited to management proposals, whereas Panel B is limited to management-opposed shareholder proposals. The dependent variable is the number of votes in favor divided by the sum of the number of votes for and the number of votes against, multiplied by 100. Yearly abnormal returns refers to the firm buy and hold return for the period 13 months to 1 month prior to the record date minus the value weight market return from CRSP. Dividend yield is defined as the difference between the firm buy and hold return with dividends and without dividends (ret and retx from CRSP, respectively). Log market equity is the log of market equity (price time shares outstanding from CRSP, as of the record-date month). Tobin's Q is book value plus market equity minus book equity, divided by book value. ROA (Return on Assets) is EBITDA divided by total assets. Book to Market ratio is Book Equity divided by Market Equity. Book to Market ratio is Book Equity divided by Market Equity. Log market equity, Return on Assets, Tobin's Q, and Book to Market are each demeaned over all firms in the sample (so a value of 0 corresponds to the average log market equity, ROA, Tobin's Q, or Book to Market, respectively). *ISS Opposed* is a binary variable that equals 1 if ISS has a recommendation other than "For" for the proposal. Columns (1)-(3) reports results using all votes, whereas columns (4)-(6) report results using retail votes in the sample. All regressions include year-quarter and industry fixed effects and are clustered at the firm meeting level. Standard errors are in parentheses. *, **, and *** represent significance at the 0.05, 0.01, and 0.001 levels, respectively.

Panel A: Management-Supported Proposals

For Percent	(1) All Voters	(2) All Voters	(3) All Voters	(4) Retail Voters	(5) Retail Voters	(6) Retail Voters
Yearly Abnormal Returns	0.58*	0.44	0.41*	2.76***	2.72***	1.97***
	(0.26)	(0.24)	(0.18)	(0.36)	(0.36)	(0.25)
Dividend Yield	5.19	-4.99	-28.34*	-13.17**	-15.75**	7.09
	(5.43)	(5.20)	(13.26)	(5.30)	(5.25)	(6.88)
Log Market Equity	0.50***	0.26***		0.69***	0.63***	
	(0.04)	(0.04)		(0.05)	(0.05)	
Return on Assets	1.05*	0.19		1.39	1.17	
	(0.53)	(0.26)		(0.72)	(0.64)	
Tobin's Q	0.06	0.10**		0.04	0.05	
	(0.04)	(0.04)		(0.07)	(0.07)	
Book to Market	-0.11	-0.10		-0.66*	-0.66*	
	(0.11)	(0.11)		(0.31)	(0.32)	
ISS Opposed		-20.81***	-21.96***		-5.30***	-5.58***
		(0.46)	(0.38)		(0.46)	(0.26)
Intercept	94.72***	96.42***	96.73***	93.01***	93.44***	94.13***
	(0.10)	(0.09)	(0.05)	(0.13)	(0.12)	(0.05)
Observations	35,891	35,891	42,458	35,866	35,866	42,432
Management Support or Oppose	Support	Support	Support	Support	Support	Support
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	No	No	Yes	No	No	Yes

Panel B: Management-Opposed Proposals

For Percent	(1) All Voters	(2) All Voters	(3) All Voters	(4) Retail Voters	(5) Retail Voters	(6) Retail Voters
Yearly Abnormal Returns	0.70	2.79	1.64	-0.19	-0.06	-3.50*
	(4.04)	(3.33)	(2.65)	(2.20)	(2.20)	(1.71)
Dividend Yield	14.99	80.64	46.40	68.96**	72.87**	40.01
	(51.44)	(41.57)	(78.25)	(29.27)	(29.27)	(44.07)
Log Market Equity	-3.80***	-0.03***		-0.01***	-1.90***	
	(0.48)	(0.45)		(0.33)	(0.35)	
Return on Assets	-13.32	-14.64		-8.74**	-8.82**	
	(10.85)	(8.47)		(7.07)	(7.03)	
Tobin's Q	1.61	1.57**		1.48**	1.47**	
	(0.83)	(0.66)		(0.58)	(0.57)	
Book to Market	0.6	1.01		1.12	1.15	
	(0.88)	(0.88)		(0.91)	(0.91)	
ISS Opposed		-7.74***	-5.97***		-1.65*	-2.35***
		(0.88)	(1.11)		(0.78)	(0.62)
Intercept	44.46***	45.79***	35.93***	26.13***	26.21***	19.04***
	(2.18)	(1.86)	(0.98)	(1.65)	(1.65)	(0.66)
Observations	1,079	1,079	1,207	1,078	1,078	1,206
Management Support or Oppose	Oppose	Oppose	Oppose	Oppose	Oppose	Oppose
Quarter Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	No	Yes	Yes	No
Firm Fixed Effects	No	No	Yes	No	No	Yes

Table 13. Account-Level Voting Decisions

This table reports evidence on account-level voting decisions with observations at the account-proposal level. The dependent variable is equal to 1 if the ballot was cast as For and 0 if it was cast as Against, multiplied by 100. All columns are limited to ballots cast for firms that appear in Compustat and to proposals recommended by management. Yearly abnormal return refers to the firm buy and hold return for the period 13 months to 1 month prior to the record date minus the value weight market return from CRSP. Dividend yield is defined as the difference between the firm buy and hold return with dividends and without dividends (ret and retx from CRSP, respectively). Log market equity is the log of market equity (price time shares outstanding from CRSP, as of the record-date month). Tobin's Q is book value plus market equity minus book equity, divided by book value. ROA (Return on Assets) is EBITDA divided by total assets. Book to Market ratio is Book Equity divided by Market Equity. Log market equity, Return on Assets, Tobin's Q, and Book to Market are each demeaned over all firms in the sample (so a value of 0 corresponds to the average log market equity, ROA, Tobin's Q, or Book to Market, respectively). *ISS Opposed* is a binary variable that equals 1 if ISS has a recommendation other than "For" for the proposal. *Delivery Method* lists dummy variables for the four methods by which a proxy package may be delivered to an account, with "Hard Copy" as the omitted variable. *Log Account Value* is the log of: the total account value for that account that year (defined as the sum across that account's firms of the product of share price and number of shares owned), less the stake value in the individual firm, plus one. *Log Account Firms Owned* is the log of the number of firms owned by the account that year. *Log Zip Code AGI* is the Adjusted Gross Income one year prior in the account's zip code. All columns include quarter fixed effects; Columns (1) through (3) include industry fixed effects; Column (3) includes account fixed effects; and Column (4) includes account-firm fixed effects. Standard errors are in parentheses. We assume homoscedastic standard errors. Regressions with account or account-CUSIP fixed effects omit intercepts.

For (Binary)	(1)	(2)	(3)	(4)
Yearly Abnormal Returns	1.86	1.79	1.6	1.31
	(0.007)	(0.007)	(0.006)	(0.008)
Dividend Yield	11.2	7.86	-1.32	-7.83
	(0.109)	(0.114)	(0.092)	(0.247)
Log Market Equity	0.573	0.45	0.221	
	(0.001)	(0.001)	(0.001)	
Return on Assets	0.475	0.369	0.138	
	(0.007)	(0.008)	(0.006)	
Tobin's Q	0.207	0.179	0.0525	
	(0.002)	(0.002)	(0.001)	
Book to Market	-0.797	-0.64	-0.476	
	(0.003)	(0.003)	(0.002)	
ISS Opposed	-6.77	-6.63	-6.34	-6.23
	(0.008)	(0.009)	(0.006)	(0.006)
Log Stake Value		0.45	1.6	0.467
		(0.001)	(0.006)	(0.005)
Log Account Value		0.369	-1.32	-0.00803
		(0.008)	(0.092)	(0.002)
Log Account Firms Owned		0.179		
		(0.002)		
Log Zip Code AGI		-0.64		
		(0.003)		
Delivery Method				
Full Package		-0.873	0.268	0.21
		(0.006)	(0.012)	(0.015)
Notice		-0.32	0.235	0.213
		(0.006)	(0.006)	(0.012)
E-mail		-0.479	0.0533	-0.0126
		(0.006)	(0.012)	(0.015)
Intercept	89.5	88.6		
	(0.005)	(0.029)		
Observations	$4.1 * 10^8$	$3.8 * 10^8$	$4.1 * 10^8$	$4.3 * 10^8$
Management Support or Oppose	Support	Support	Support	Support
Quarter FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	No
Account FE	No	No	Yes	No
Account-Firm FE	No	No	No	Yes

Figure 1: Delivery of Proxy Material and Shareholder Voting

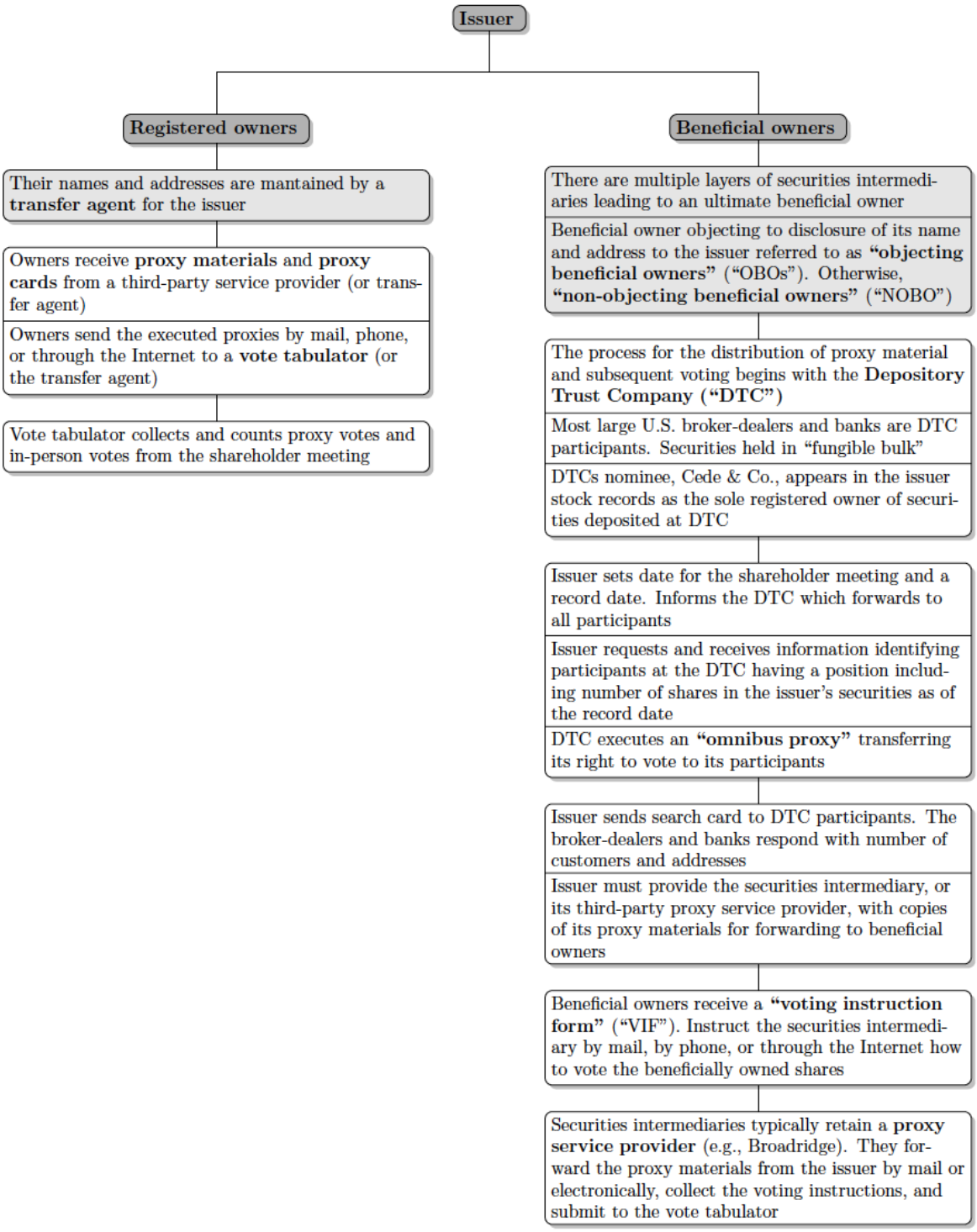
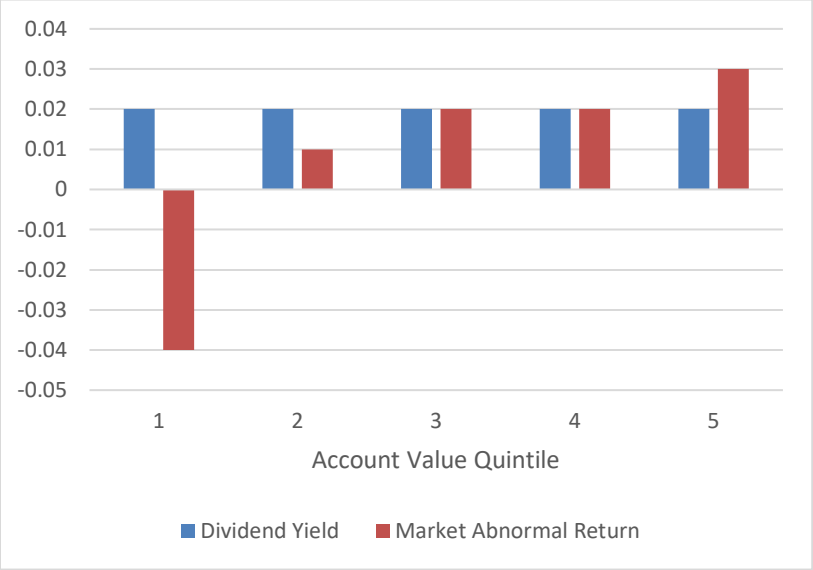


Figure 2. Ownership Characteristics by Account Value

This figure graphs ownership characteristics by account value quintile. Retail characteristics were generated as follows: first, for each firm meeting, we use each account's holdings on the record date as a "snapshot" of that account's yearly holdings in the firm. We remove duplicate meetings of the same firm in a single year. Second, for each account, we aggregate the holdings in the portfolio at the account-year level. Account Value is defined as the sum of an account's individual firm stake values, where the stake value is the number of shares owned by the account multiplied by the record-date month share price. Panel A shows the Dividend Yield, defined as the difference between the firm buy and hold return with dividends and without dividends (ret and retx from CRSP, respectively), and the market abnormal return, calculated as the buy and hold abnormal return on the securities in the account, assuming the account held all securities for the past year. Panel B shows the number of firms in the portfolio and the Voting Rate (defined as the number of ballots cast divided by number of voting opportunities).

Panel A: Dividend Yield and Abnormal Returns by Account Value



Panel B: Number of Firms in the Portfolio and Voting Rate by Account Value

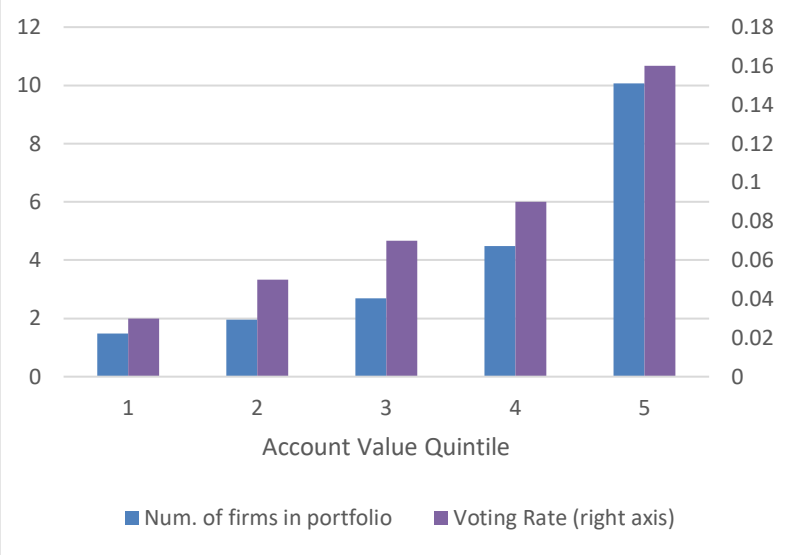


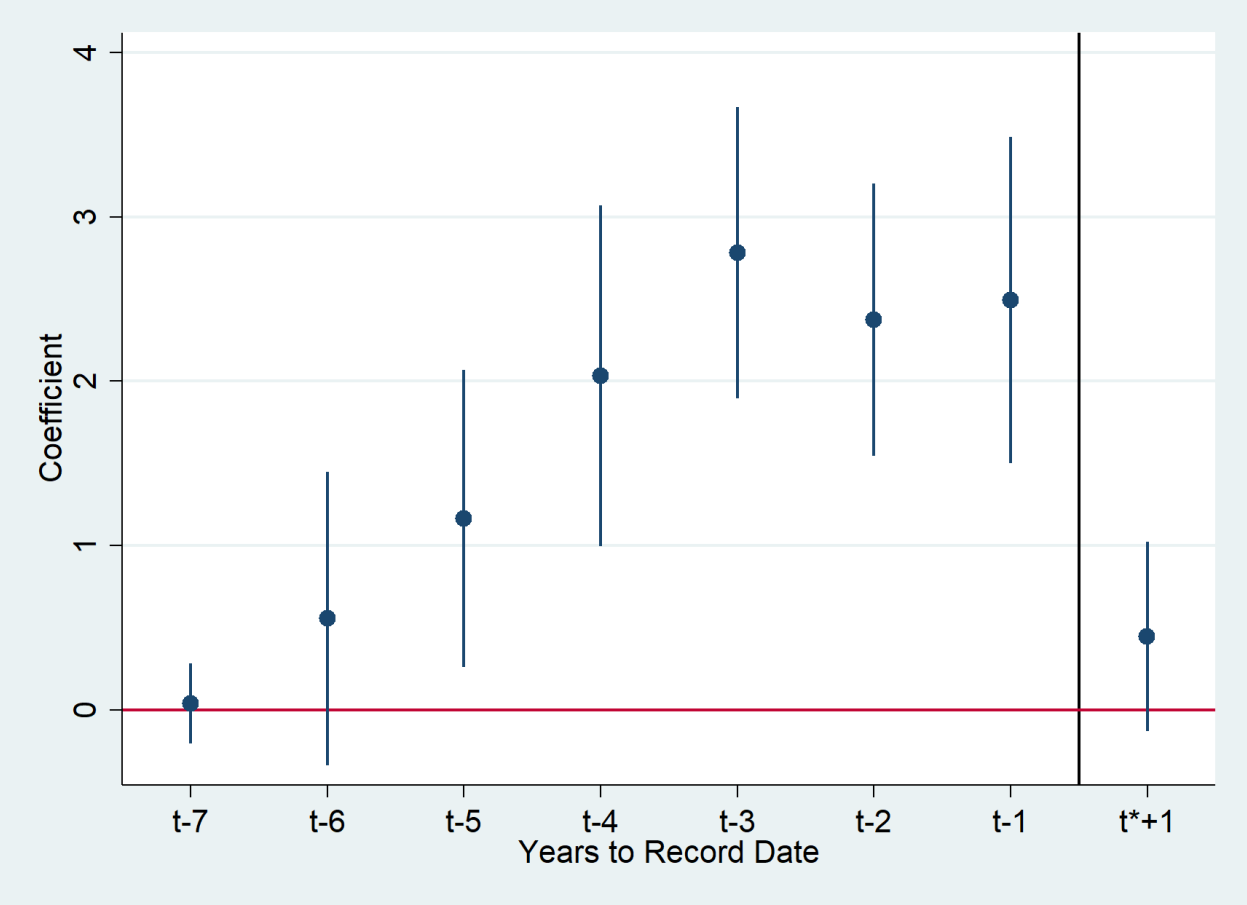
Figure 3. Firm Ownership Characteristics by Firm Size

This figure graphs firm ownership characteristics by account value quintiles. Firm size is calculated as the product of CRSP variables csho and prc, and quintiles are determined using the NYSE size breakpoints from Ken French's website. "Median Num. of Investors" refers to the number of retail investors in the sample, in thousands, who own shares in the firm. "Median Retail Ownership %" is the percentage of outstanding shares of the firm held by domestic retail investors in the sample.

Figure 4. Regression Coefficients of Management Support on Leading and Lagged Abnormal Returns

This figure reports regression results on shareholder voting support at the proposal level. It is limited to management proposals. The dependent variable is the number of votes in favor divided by the sum of the number of votes for and the number of votes against, multiplied by 100. The figure shows the regression coefficients on abnormal returns for the seven one-year periods leading up to the record date, and the one year period following the meeting date. 95% confidence intervals are also shown. Abnormal returns are defined as the buy and hold return for the one-year period minus the value weighted return from CRSP. The regression also includes the following covariates not shown in the figure: dividend yield, defined as the difference between the firm buy and hold return with dividends and without dividends (ret and retx from CRSP, respectively); log market equity, defined as the log of market equity (price time shares outstanding from CRSP, as of the record-date month); Tobin's Q, defined as book value plus market equity minus book equity, divided by book value; ROA (Return on Assets), defined as EBITDA divided by total assets; Book to Market ratio defined as Book Equity divided by Market Equity; ISS Opposed, a binary variable that equals 1 if ISS has a recommendation other than "For" for the proposal; and year-quarter and industry fixed effects. Standard errors are clustered at the firm meeting level.

Percent in Favor, Regression Coefficient on Yearly Abnormal Return



Appendix A1. Matching of Retail Voting Sample to ISS Voting Analytics

This appendix provides a detailed description of the proposal-level merger of the ISS Voting Analytics and retail voting datasets. The two datasets include slightly different samples of firms: of 7,606 unique 6-digit CUSIPs in ISS Voting Analytics and 6,782 unique 6-digit CUSIPs in the retail voting data, 5,849 are in both. Nearly all of the 1,757 firms that appear in ISS Voting Analytics but not in the retail voting sample are investment funds. Nearly all of the 933 firms that appear in the retail voting data but not in ISS Voting Analytics are non-public firms.

The retail voting sample data comes in the form of two separate datasets: one at the firm-meeting-account level, in which each row contains a string of votes representing the votes of an account for all proposals at that meeting (or is blank, if the account did not vote); and one at the proposal level, in which each row contains the text of a single proposal at a meeting. The string of shareholder votes in the retail voting data is in the same order as the proposals appear on the ballot; however, the proposals vary in their ordering (some are numbered, some are lettered, some have roman numerals or identifying tags). The retail voting dataset does not contain any identifying information about which proposal is which other than the order of votes. Thus, the proposal-level merge between the retail voting data and ISS Voting Analytics actually requires a three-way merge between the retail voting data, the retail proposal data, and ISS Voting Analytics.

We begin by attempting to correctly order the proposals in the retail proposal set so that they properly reflect the actual ballot order. From 90,964 proposals spanning 17,937 meetings in the original retail proposal set, there are 90,787 remaining once we remove proposal slates which are overall duplicates in CUSIP, meeting date, record date, proposal text and number of proposals (we retain one of the proposal slates). We then remove any meetings from the retail proposal set for which the meeting ID does not appear in the retail voting data set, leaving 17,736 meetings (89,850 proposals). Following this step, we match these proposals to ISS Voting Analytics. We match to ISS Voting Analytics before we match to the other retail voting dataset so that we can use this match to correct any mis-orderings that remain.

Meetings in ISS Voting Analytics and the retail voting sample are defined slightly differently with respect to multiple proposal slates. Meetings with multiple types of securities or multiple share classes may have different slates of proposals. For example, preferred stockholders

may elect a different set of directors but otherwise vote for the same ballot items as common stockholders. ISS Voting Analytics treats different proposal slates as separate meetings; the retail voting data labels the slates differently within the same meeting. Thus, a proposal that is voted on as part of two different proposal slates will be appear as a duplicate. For consistency, we adopt the convention of reporting as a "meeting" a unique CUSIP-meeting date-record date.

To match proposals across the ISS Voting Analytics and retail voting data, we begin by matching meetings by 6-digit CUSIP, meeting date, and record date. Of 18,925 meetings in the ISS Voting Analytics set (of which 15,549 have CUSIPs which appear in the retail voting sample) and 17,731 meetings in the retail voting data (of which 15,683 have CUSIPs which appear in ISS Voting Analytics), 14,587 meetings are in both datasets. There are several hundred meetings which match by CUSIP but not by meeting date and record date. Many appear to be due to simple discrepancies in record date between the datasets. Others likely are due to incorrect CUSIP matches. Finally, 89 are due to the fact that proxy contests are in ISS Voting Analytics but not in the retail voting data.

Because ISS Voting Analytics lists multiple proposal slates as multiple meetings on the same day, for the 622 cases in which ISS Voting Analytics has multiple meetings by the same firm on the same day (166 of which are in the retail voting data), we remove them and separately hand-match their proposals to proposals from corresponding meetings. We also hand-match the 21 additional meetings with multiple profiles that are in ISS Voting Analytics but not in the previous group of 622.

Next, for all of the remaining meetings, we use the number of proposals at the meeting and the order of proposals to match. In both datasets, proposals within a meeting appear in the order in which they appear on the ballot. However, various discrepancies arise between the two datasets, in which both do not include precisely the same proposals in precisely the same order. Sources for these discrepancies include: (i) the retail voting data frequently condense multiple director election proposals into a single row with proposal text "#DIRECTOR" rather than a separate proposal for each director with the actual proposal text; (ii) the retail voting proposals are ordered unsystematically, with a mix of lexicographic and other kinds of ordering; (iii) there are some proposals about which the firms take different approaches, such as proposals to permit "other business," check boxes to indicate whether the voter has a conflict of interest in the vote, and

withdrawn proposals; (iv) ISS Voting Analytics is missing several hundred proposals from its dataset, apparently erroneously (in such cases, the proposals are apparently numbered properly within ISS Voting Analytics but one of the numbers is missing); and (v) for many meetings, ISS Voting Analytics, apparently erroneously, lists each proposal twice.

To deal with these issues, for those meetings matched on CUSIP, meeting date, and record date, we provisionally match their constituent proposals in order, then use additional factors to properly merge the datasets proposal by proposal, including the proposal's text description given in each dataset. ISS Voting Analytics proposals have a brief item description of the proposal produced by ISS Voting Analytics. The retail voting data have for each proposal the first several hundred characters of the proposal text directly from the proxy statement. Starting from our match at the meeting level, we match at the proposal level in a series of stages. If two matched meetings have the same number of proposals, then we provisionally match the proposals in order. Because both ISS Voting Analytics and the retail voting data list their proposals in the order they appear on the proxy ballot, this should accurately match the two in most cases. As an added check, we conduct a text match to flag potentially mismatched proposals that we later hand-check.

Our text match is designed as follows. First, for each pair of meetings that are matched by 6-digit CUSIP, record date, meeting date, and number of proposals, we calculate the string distance between the text description for all combinations of each of the ISS Voting Analytics proposals and each of the retail voting proposals within the matched meeting. To calculate string distance, we use the Jaccard distance, which is the number of shared 5-character strings divided by the total number of 5-character strings. This generates, for a meeting with n proposals, an nxn matrix of Jaccard distances, in which (j,k) represents the ISS Voting Analytics proposal in the j'th spot's distance from the retail dataset proposal in the k'th spot, and in which the diagonal represents the distances from the proposals "across from them" in the other dataset. We calculate a score for the meeting based on the ratio of the sum of the lowest alternative row or column versus the sum of the diagonal, where a score of 1 indicates that each of the proposals match up better to the proposals across from them in the other dataset than they do to any other proposal in the meeting. For those meetings with scores below 0.99 or flagged for another reason, we check all proposals in the meeting by hand. Matches may be flagged if either (i) there is only one proposal in the meeting and the proposal text in the retail data is not "#DIRECTOR," or (ii) there are multiple ISS Voting Analytics proposals with "Elect Director" in the item description but one of the retail proposal

texts is "#DIRECTOR", implying that the director elections were condensed in the retail data for that meeting.

If an ISS Voting Analytics meeting and a retail data meeting matched on CUSIP, meeting date, and record date do not have the same number of proposals, then, since the most likely reason is that the retail data frequently condenses multiple director elections into a single "#DIRECTOR" proposal, we similarly "condense" the ISS Voting Analytics meeting by removing all but one row containing the string "Elect Director" in its item description. If, after this process, the two matched meetings have the same number of proposals, then we repeat the process described above: we merge each "condensed" ISS Voting Analytics meeting to its corresponding retail data meeting on number of proposals, and, if they match, again generate a match score and hand-check those with scores below 0.99 or flagged for another reason. If the matched meetings still have a different number of proposals, then we manually hand-match their proposals.

Following this process, from the original 14,587 matched meetings we manually hand-match the proposals at 303 meetings (2,112 proposals), for which we find a match from the retail data to ISS Voting Analytics on at least one proposal for 301 meetings (1,919 matched proposals). These are cases in which ISS Voting Analytics has duplicate meetings on the same day or the ISS Voting Analytics and retail data meetings do not have the same number of proposals even after condensing. We hand-check the proposals for 760 meetings (3,217 proposals) in which the number of proposals is the same but the match score is below 0.99 or they are flagged for other reasons, for which we find a match from the retail data to ISS Voting Analytics on at least one proposal for 759 meetings (3,215 proposals). We algorithmically match, and do not further check, the proposals at 13,524 meetings (68,048 proposals). Those proposals that are algorithmically matched belong to meetings that match on CUSIP, meeting date, meeting day, and number of proposals, have a text match score greater than or equal to 0.99 on the ISS Voting Analytics Item Description and retail proposal text, and did not trigger other flags that would suggest a mistake as described in this appendix. Last, three meetings were removed because we cannot confirm from their constituent proposals that the meetings themselves were correct matches.

As a final check on our matching process, we verify with the subset of hand-checked meetings that the match score we generate is a strong predictor of proper matching and that those scores above 0.99 have a low chance of being incorrectly matched. For the 593 hand-checked

proposals with match scores below 0.95, just 170 were properly provisionally matched, but for the 2,350 proposals with scores between 0.95 and 0.99, 2,346 were properly provisionally matched. An additional 274 proposals had scores above 0.99 but were flagged for other reasons; 270 of these were properly provisionally matched. Finally, we also hand-checked 1617 proposals that were not flagged for any reason; all were properly provisionally matched.

The merge of the retail proposal data with ISS Voting Analytics generally confirms the proper order of the retail proposals and permits a merge to the retail voting data. For those that we hand-code, we also use the manually-checked original retail proposal order and re-order appropriately to ensure that we can properly merge with the retail voting dataset.

We then merge the combined ISS Voting Analytics-retail proposals set with the retail voting dataset. Starting with 89,850 proposals in the original retail proposal set, we remove 71 that are duplicates which caused the number of meetings to be mis-matched, and remove one meeting of six proposals that are entirely duplicates, leaving 89,772 proposals. There are 89,652 proposals remaining once we remove proposal slates which are duplicates in CUSIP, meeting date, record date, and number of proposals, but which are not identical in proposal text (we remove all copies of such proposal slates, since we have no way to properly merge to the retail voting data). Of these, 89,571 proposals (17,720 meetings) properly match to the retail voting set by CUSIP, meeting date, record date, number of proposals at the meeting, and sequence number. 73,084 of these proposals (14,578 meetings) match to ISS Voting Analytics.

We have two additional checks using variables that we did not use for our merges. First, although the retail voting dataset has no identifying information to distinguish proposals at a meeting other than the votes themselves, the frequency of say on pay votes are uniquely distinguishable from other votes using the retail voting data because the votes are 1's, 2's, and 3's instead of For's or Against's. Of the 2,483 proposals for which the retail voting dataset votes are 1's, 2's, and 3's and for which there was a meeting match to ISS Voting Analytics, 2,479 were properly matched to a retail proposal set frequency of say-on-pay proposal, a success rate of 99.8%.

Second, both the retail voting data and the ISS Voting Analytics data include proposal-level management recommendations, so we can use these to cross-compare our results. Of 73,084 proposals, the management recommendations differ in 70. From spot-checking, these appear to

be cases in which the proposals are properly matched but the firms differ in their management recommendations (for example, because the proposal was withdrawn).

We subsequently merge this sample with CRSP, leaving 54,876 proposals. We then merge with SharkRepellent and correct certain ISS Voting Analytics numbers, as reported in Appendix A2, though we do not drop observations that do not match to SharkRepellent. We hand-correct 42 entries where ISS Voting Analytics and SharkRepellent incorrectly report 0 votes For and Against. We drop proposals where the number of votes outstanding is reported incorrectly and cannot be corrected, where all voting categories have no votes (almost always where the firm did not report the results of that proposal in the original 8-K or the proposal was withdrawn prior to voting), and where For votes were reported but not Against, leaving a final sample of 53,952 proposals.

Appendix A2. Correction of Erroneous ISS Voting Analytics Numbers

In the course of matching the retail voting proposal data to that in ISS Voting Analytics, we found that ISS Voting Analytics reports erroneous numbers of outstanding shares and vote returns in a portion of its observations. This error affects observations in 2017. In this appendix, we describe how we correct these erroneous entries.

The nature of the issue is as follows. For all meetings in year 2017 for fields with more than 9 digits for outstanding shares, votes for, votes against, votes abstained, and say on pay frequency votes, ISS Voting Analytics data cuts off the final digits of the number. For example, a share count of '123,456,789' would be reported in ISS Voting Analytics as '12,345,678.'

We correct the errors using data from SharkRepellent, which contains information on outstanding shares, votes for, votes against, votes abstained, and say on pay frequency votes. We first match SharkRepellent to ISS Voting Analytics at the meeting level (by CUSIP, record date, and meeting date) and proposal level (by votes for, votes against, and votes abstained). For the proposal-level meetings, we permit matches in situations in which ISS Voting Analytics has cut off extra digits.

For those observations that do not match with SharkRepellent and are candidates to have digits cut off we identify observations in 2017 that ISS Voting Analytics report as having 8 digits, and CRSP reports at least 80,000,000 outstanding shares and we hand-code the correct numbers using public filings. For a small handful of observations where (i) we do not have shares outstanding numbers from SharkRepellent and (ii) shares outstanding from the record-date month from CRSP is approximately 100 or 1,000 times the ISS Voting Analytics number, we multiply the ISS Voting Analytics number by 100 or 1,000 to reach an approximate number.

In total, we correct 20,037 entries across 11,629 proposals with digits cut off, inappropriate zeros, or other inconsistencies. We also run further diagnostics to confirm that ISS Voting Analytics numbers are accurate other than the issue described above. Note that we choose to continue to use the ISS Voting Analytics proposal data rather than SharkRepellent despite the errors because it can be matched at the proposal level with the voting data, as detailed in Appendix A1, whereas SharkRepellent cannot be, and ISS Voting Analytics has larger coverage.

Appendix A3. Categorization of ISS Voting Analytics Proposals

The ISS Voting Analytics dataset contains two fields that we use to categorize shareholder proposals. The first, Item Description, is the full text for the proposal on the proxy statement. The second, Agenda General Description, is a standardized and more concise description, e.g., "Approve Political Donations." The proposals in the ISS Voting Analytics dataset are captured by only 310 distinct Agenda General Descriptions as compared to 46,343 distinct Item Descriptions. We allocate each of the Agenda General Descriptions into seven broad categories designed to capture the diversity of these proposals. For proposals with insufficient information in their Agenda General Descriptions we use the full-text Item Description to assign them into one of our seven categories. We use string matches (e.g., "Elect Director") to assign the bulk of these proposals into categories, and then hand-match the remaining proposals. Table A3 reports the seven categories:

Table A3

Categories of Proposals:		
1	**Directors**	Elect Director
2	**Accounting**	Financial Statements/Auditor
3	**Governance**	Board and Shareholder Rights
		Compensation
		Say on Pay Frequency
		Shareholder Governance Proposal
		Other
4	**Major Transactions**	Issuance, Buyback, Distribution, Stock Split, or Conversion
		M&A
5	**Environmental**	Climate Change, Sustainability, Etc.
6	**Social**	Diversity, Lobbying, Etc.
7	**Other**	