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Institutional Ownership Overstates Voting Power: The Allocation of Voting Authority

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August 2026

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Abstract

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Keywords: Institutional Investors, Proxy Voting, Corporate Governance, Voting Authority

JEL Classifications: G23, G28, G34

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Institutional Ownership Overstates Voting Power: The Allocation of Voting Authority*

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This version: August 2026

Abstract

Institutional ownership is commonly used to assess corporate governance influence, yet voting rights are often allocated through adviser-client relationships. We study how reported ownership translates into realized voting by reporting institutions and construct voting utilization, the fraction of reported ownership voted by the institution. Even among institutions that vote, the average institution votes 77 percent of its reported shares, and utilization varies substantially across institutions and firms. Advisers' stated allocation of voting authority strongly predicts which institutions vote. The largest institutional blockholders' reported holdings overstate their realized voting control, implying that voting power is more diffuse than ownership suggests.

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1 Introduction

Institutional ownership is widely used as a proxy for influence over corporate decisions. A large literature implicitly assumes that reported equity holdings translate directly into proxy voting power, and hence into effective participation in corporate governance. We document that, even among institutions that vote, the average institution votes only 77% of the shares it reports owning. This divergence between reported ownership and realized voting reflects a fundamental but largely overlooked feature of modern asset management. Voting rights over client securities are allocated ex ante through adviser-client arrangements that vary across accounts and client types. As a result, the extent to which reported institutional holdings translate into proxy voting power differs substantially across institutions, and treating the two as equivalent overstates the effective control exercised through proxy voting.

This paper studies how reported institutional ownership is translated into realized proxy voting by reporting institutions. We introduce measures of voting utilization, defined as the fraction of reported ownership for which voting rights are actually exercised through proxy voting. Using newly available regulatory disclosures, we quantify for the first time how much institutional ownership is actually voted by the broad set of asset managers subject to Form 13F reporting, and how this varies across managers and firms. Our analysis brings together three disclosure regimes that jointly reveal both the ex-ante allocation and the ex-post exercise of voting authority. Form 13F identifies reported ownership. The SEC's recent expansion of Form N-PX extends realized voting records beyond the mutual funds and ETFs studied in prior work, to all institutional investment managers subject to Form 13F reporting. Form ADV reveals how investment advisers and their clients allocate voting authority before any vote is observed, including whether authority is accepted by the adviser, retained by clients, or segmented across accounts and mandates.

Four sets of results emerge. First, voting utilization is substantially below one and differs markedly across institutions. Even the largest institutional owners vote fewer shares than they report owning. Average voting utilization among the "Big Three" asset managers is only 73%. Utilization also varies within institutions across portfolio companies, consistent with reported positions aggregating client accounts that differ in where voting authority resides. Securities lending and trading around record dates contribute little to these patterns.

Second, whether institutions vote at all is strongly related to the ex-ante allocation of voting authority. We classify advisers' stated voting arrangements from Form ADV into four categories. These are a strict policy of not voting client securities, a non-voting default under which the adviser provides voting advice to clients who retain their votes, discretionary voting authority exercised on clients' behalf, and segmented arrangements under which authority differs across funds, accounts, or client types. These stated arrangements have operational content. They strongly predict whether an institution reports votes on Form N-PX. If voting were instead chosen meeting by meeting, utilization should be higher where the benefits of voting are greater, for example when a vote is closely contested or when the position accounts for a larger share of the institution's portfolio. We find little evidence of either pattern. The evidence thus ties institutions' participation in proxy voting to the allocation of voting authority in adviser-client arrangements rather than to the attributes of any particular vote.

Third, we find that incomplete voting utilization has important implications at the firm level. Votes cast by the largest institutional blockholders consistently fall short of their reported holdings, indicating that reported ownership overstates realized voting even among economically important investors. In the largest firms, the ten largest institutional investors together own about 45% of shares outstanding but cast votes equal to only about 38%. Matching their ownership share requires the votes of roughly the twenty largest investors. Realized voting by reporting institutions is therefore more diffuse than reported ownership would suggest.

More broadly, firms differ in the fraction of institutional ownership that is actually voted. These differences in firm-level voting utilization also extend to voting outcomes. Firms for which a larger fraction of institutional ownership is actually voted receive greater support for management's say-on-pay proposals and are less likely to experience close votes, consistent with more centralized exercise of voting authority being associated with greater support for incumbent management on pay. A one-standard-deviation increase in firm-level utilization is associated with a decline of nearly one-third in the incidence of close votes.

At the institution-firm level, 13F institutional owners are more likely to support management at firms for which they vote a larger fraction of their holdings, after accounting for the importance of the position in the institution's portfolio. Adviser characteristics also

predict how votes are cast once voting authority is exercised. Advisers with a larger share of institutional-client AUM are less supportive of management, while those with more non-discretionary AUM are more supportive, suggesting that client composition and the scope of adviser discretion shape whose preferences are reflected in institutional voting. Taken together, this evidence indicates that ownership alone is an incomplete measure of governance influence because the relation between institutional ownership and voting outcomes depends on how much of that ownership is actually exercised through voting.

Fourth, we ask whether the shares not voted by reporting institutions are instead voted by the underlying clients who retain voting authority. Using a firm-level decomposition of aggregate turnout, we estimate that clients vote only about 50% of the shares their reporting institutions leave unvoted. Because reporting institutions leave a sizable fraction of their reported shares unvoted, the voting rights attached to a meaningful share of institutionally owned shares are not exercised at all. Incomplete utilization therefore reduces shareholder voice rather than merely reallocating it.

This paper contributes to several strands of the literature. First, it contributes to the literature on institutional stewardship and proxy voting (Yermack (2010), Dasgupta et al. (2021)) by providing the first comprehensive evidence on how the reported ownership of the broad universe of institutional investors subject to Form 13F reporting translates into realized proxy voting. Existing empirical work on proxy voting largely focuses on mutual funds and ETFs (e.g., Matvos and Ostrovsky (2010), Iliev and Lowry (2015)), reflecting historical data limitations, and on participation and turnout conditional on voting (Zachariadis et al. (2025)). In contemporaneous work, Iliev and Lowry (2026) use the new N-PX disclosures to study institutional managers' decisions to vote on say-on-pay proposals. By exploiting the SEC's recent expansion of Form N-PX together with Form 13F and Form ADV, we show that realized institutional voting must be interpreted jointly with reported ownership and with the authority arrangements that determine which reported holdings can be voted.

Second, the paper contributes to work that studies how ownership translates into voting power in practice. A large literature on blockholders and institutional governance emphasizes ownership concentration and monitoring incentives as central determinants of influence (Shleifer and Vishny (1986), Edmans and Holderness (2017), Dasgupta et al. (2021), Lewellen and Lewellen (2022), Heath et al. (2026), Marini and Zingales (2026)). We show that re-

ported ownership is an imperfect measure of voting rights exercised through proxy voting, and that the resulting gap between reported ownership and realized voting is shaped by the ex-ante allocation of voting authority embedded in adviser-client relationships. More broadly, our evidence implies that realized voting by reporting institutions should not be interpreted as a direct measure of the reporting adviser's preferences or monitoring choices. An observed vote may reflect adviser discretion or client instruction, and the shares voted may represent only the subset of reported holdings for which voting authority is exercised through the reporting institution. Similarly, the absence of a vote by the reporting institution need not imply a discretionary decision not to vote shares over which it had authority.

Third, the paper contributes to the growing literature on asset management and adviser-client contracting by interpreting the allocation of voting authority as an equilibrium outcome of advisory relationships. Prior work emphasizes how investor heterogeneity, fund structure, and organizational design shape the allocation of governance authority within asset management firms (e.g., Bebchuk et al. (2017), Bebchuk and Hirst (2019), Herrmann et al. (2025), Malenko et al. (2026)). Related research examines the rise of segmented and pass-through voting arrangements, under which advisers partially decentralize voting authority to underlying investors (e.g., Fisch and Schwartz (2023), Malenko and Malenko (2026), Brav et al. (2026), Gomtsian and Gosling (2026)), while Hu and Hamermesh (2025) study Delaware's rule that allows conflicted transactions to be approved by the votes of unconflicted shareholders and argue that applying the rule requires knowing who actually decides those votes. Building on these perspectives, we provide direct evidence on how client structure and contractual constraints map into realized proxy voting behavior across advisers. By measuring voting utilization, we quantify how adviser-client arrangements shape the extent to which reported institutional ownership is converted into votes cast by reporting institutions.

The next section describes the institutional and regulatory background governing proxy voting and the allocation of voting authority, which underpins our empirical analysis.

2 Institutional background

A central contribution of this paper is to link institutions' stated voting-authority arrangements to their reported holdings and the votes they actually cast. To do so, we rely on three

distinct regulatory disclosure regimes that govern institutional investors. First, Forms 13F and N-PORT require periodic disclosure of portfolio holdings and, in the case of Form 13F, reported voting authority categories. Second, Form N-PX requires registered funds and, since 2023, institutional investment managers subject to Section 13(f), to disclose realized proxy voting behavior at the meeting level, including the number of shares voted and shares on loan, with institutional managers reporting say-on-pay votes. Third, Form ADV requires registered investment advisers to disclose whether and how they exercise voting authority over client securities, including whether voting authority is accepted, retained by clients, or allocated differently across mandates and accounts. These disclosures provide an ex ante statement of how voting authority is allocated in adviser-client relationships and, as we show below, are available for advisers associated with most Form 13F filers.

Taken together, these disclosure regimes allow us to move beyond the common assumption that institutional ownership maps directly into governance control. Form 13F identifies reported ownership, Form N-PX identifies the exercise of voting power, and Form ADV helps identify the ex-ante adviser-client arrangements that allocate voting authority before votes are observed. This section describes the information each disclosure regime provides on reported holdings, realized voting, and stated adviser voting arrangements.

2.1 Portfolio holdings disclosures

Institutional investment managers with more than $100 million in qualifying securities must file quarterly Form 13F reports disclosing their equity positions at each calendar quarter-end. Form 13F requires filers to report, for each equity security, the number of shares over which they have sole, shared, or no voting authority. We define institutional investment manager ownership as the sum of these three categories, as in Backus et al. (2021).

While Form 13F provides holdings information at the institutional manager level, registered investment companies report portfolio holdings at the fund level through a separate disclosure regime. Beginning in 2019, mutual funds and ETFs report detailed portfolio holdings, including shares held in each portfolio company, on Form N-PORT on a quarterly basis.

Because some institutional managers combine mutual funds, separate accounts, and other client mandates, and because holdings and proxy votes may be reported through affiliated

entities at different organizational levels, mapping reported ownership to realized voting is not always straightforward below the institution level. This reporting structure motivates our use of institution-level ownership and voting measures, which combine the holdings disclosures described here with the proxy voting disclosures described in the next subsection.

2.2 Proxy voting disclosures

Registered investment companies, including mutual funds, ETFs, and closed-end funds, have been required to disclose their proxy voting records on Form N-PX since 2003. These filings have had a significant impact on research studying fund voting (Yermack (2010)). The SEC adopted in late 2022 its final rule to enhance the information registered funds report on Form N-PX about their proxy votes, in light of policy debates regarding the rise of index fund power, fund stewardship, overlapping institutional ownership, and the opaqueness of the market for securities lending. The 2022 rulemaking amended funds' reporting of proxy voting matters and categories, making the information easier to collect and analyze, and required funds to disclose the number of shares voted, as well as the number of shares loaned but not recalled and therefore not voted by the fund.

The SEC's new Rule 14Ad-1 required institutional investment managers subject to 13F reporting to report on Form N-PX how they voted proxies on "say-on-pay" votes over which the manager exercised voting power. These requirements applied to votes occurring on or after July 1, 2023, with the first amended Form N-PX filings due August 31, 2024 for the period July 1, 2023 through June 30, 2024. A manager that reports no proxy votes must state the reason, including that all of its votes are reported by other reporting persons, that it did not exercise voting power over any reportable matter, or that it has a disclosed policy of not voting and did not vote during the period.[1]

The new reporting obligation is based on exercised voting power rather than on whether the security appears in the manager's own Form 13F filing. Lynn et al. (2024) note that the N-PX filing requirement is not limited to securities listed on the covered manager's Form 13F, but applies to any security of a company over which the manager exercised voting power on a say-on-pay matter under Section 14A. They also note that the manager has no reporting

[1] SEC, Securities Act Release No. 33-11131, Nov. 2, 2022, SEC Press Release 2022-198.

obligation when the voting decision is entirely determined by its client or another party. Thus, Form N-PX non-reporting is informative about exercised voting power, but does not by itself identify the authority arrangements determining whether the manager could vote.

2.3 Form ADV and stated voting-authority arrangements

Registered investment advisers are regulated under the Investment Advisers Act of 1940, which establishes federal fiduciary standards. This fiduciary duty applies to the entire adviser-client relationship and depends on the scope of authority the adviser has agreed to assume for the client. In the context of proxy voting, the SEC states that "the specific obligations that flow from the investment adviser's fiduciary duty depend upon the scope of voting authority assumed by the adviser." The SEC further states that "an investment adviser is not required to accept the authority to vote client securities," and that advisers and clients may agree on the scope of voting arrangements, including the types of matters for which the adviser will exercise proxy voting authority. This guidance underscores that proxy voting authority is a contractual and organizational choice rather than a fixed feature of the advisory relationship. We therefore examine how advisers structure voting authority across funds and client mandates and how these arrangements map into observed voting behavior.[2]

Investment advisers that are registered with either the SEC or state securities authorities, as well as certain advisers that are exempt from full SEC registration, are required to file Form ADV through the Investment Adviser Registration Depository. Advisers generally file annual updating amendments and amend their filings as required to reflect material changes. Form ADV provides information about advisers' business practices, conflicts of interest, and disciplinary history. Of particular relevance for this paper, advisers that file a Part 2A brochure must disclose whether they accept authority to vote client securities and, if so, describe their voting policies and procedures. These disclosures are included in Part 2A of Form ADV under Item 17, Voting Client Securities. Advisers that exercise voting authority are required to describe how proxy votes are determined and how conflicts of interest are addressed, while advisers that do not vote client securities must disclose this fact and explain

[2] Internet Appendix IA.S1 provides additional regulatory background on the allocation of proxy voting authority in adviser-client relationships.

whether voting authority is retained by clients or delegated to another party.

Form ADV therefore provides adviser-level evidence on how voting authority is allocated before votes are observed. Unlike Form N-PX, which reports realized voting outcomes at the meeting level, ADV disclosures describe voting practices at the adviser level and are not tied to specific portfolio companies or shareholder meetings. Because registered investment advisers account for a substantial share of Form 13F filers, ADV filings offer a broad view of voting authority arrangements prior to observing actual voting behavior.[3]

Figure 1 summarizes the institutional relationships described in this section and provides a roadmap for the empirical analysis. Form ADV reveals several voting modes, which Section 3 later classifies formally. Voting authority may remain with clients, be supported by adviser recommendations, be delegated to advisers, or be allocated differently across mandates. The figure shows how Form ADV voting modes connect client-adviser arrangements to ownership reported on Form 13F and realized votes reported on Form N-PX.

[Insert Figure 1 here.]

3 Data and sample overview

We combine several data sources. Record dates and proposal-level voting data come from ISS Voting Analytics, and securities data come from the Center for Research in Security Prices (CRSP). We restrict the analysis to securities with CRSP common share codes 10 and 11, excluding ADRs, preferred stock, closed-end funds, REITs, trusts, ETFs, options, warrants, and convertibles. This section describes the meeting and firm sample and the construction of the linked ownership-voting data, including registered-fund holdings and votes, institutional-manager holdings and votes, and Form ADV voting-authority classifications.

[3] Prior research has used Form ADV disclosures to study adviser misconduct (e.g., Dimmock and Gerken (2012), Egan et al. (2019), Tookes and Yimfor (2025)), investor trust and adviser flows (e.g., Gurun et al. (2018)), client relationships and adviser mobility (e.g., Gurun et al. (2021)), to link adviser-client composition to mutual-fund performance (e.g., Casavecchia and Tiwari (2016), Del Guercio et al. (2018), Beggs (2022), Bae et al. (2023)), to identify and characterize investment advisers in Form 13F filings (e.g., Pan et al. (2019), Cheng et al. (2023)), and to identify hedge fund managers (e.g., Brunnermeier and Nagel (2004), Brown et al. (2008)).

3.1 Firm-level sample coverage

As noted above, we restrict the analysis to securities with CRSP common share codes 10 and 11. We begin with the universe of U.S. common stocks with voting share classes and merge these firms with meeting information from ISS Voting Analytics. We then restrict the sample to firms that held annual or special shareholder meetings during the July 2023 through June 2024 period and further require a say-on-pay proposal, which is subject to mandatory disclosure under the amended Form N-PX reporting regime. The resulting sample consists of 2,857 unique firms. Details of the sample construction and quarter-by-quarter coverage are reported in Internet Appendix Table IA.1.

3.2 Registered investment funds' holding and voting disclosures

3.2.1 Portfolio holdings disclosures

We obtain portfolio holdings of registered investment companies, including open-end mutual funds and ETFs, from Form N-PORT filings downloaded from the SEC's EDGAR system. U.S. equity funds are identified in the CRSP Mutual Fund Database using objective codes beginning with "E" and linked to N-PORT filings through each fund's series CIK. For positions with missing or incorrect CUSIPs, we reconcile identifiers using issuer names.

3.2.2 Proxy voting disclosures

For each fund and ETF, we download either a voting report or a notice report for votes cast during the period from July 1, 2023, through June 30, 2024. For fund voting reports, we extract the company name, CUSIP, meeting date, proposal description, number of shares voted, number of shares on loan, and vote direction. All of our sample funds whose votes we incorporate into certain 13F filers file fund voting reports in fiscal year 2024. For voting records with missing or incorrect CUSIPs, we identify the correct CUSIPs using issuer names. We collapse the voting data to the fund-meeting level and merge it with fund ownership information using CUSIP and record date.

3.3 Institutional investment managers' holding and voting disclosures

3.3.1 Portfolio holdings disclosures

We obtain institutional investment managers' portfolio holdings from quarterly Form 13F filings submitted via EDGAR in fiscal year 2024. Form 13F filings fall into three categories. A Form 13F-HR holdings report discloses the reporting manager's reportable holdings directly. A Form 13F-NT notice report indicates that the manager's holdings are reported by another reporting manager. A Form 13F combination report is filed when some holdings are disclosed directly and the remainder are reported by one or more other reporting managers. We identify all managers that file 13F-HR, 13F-NT, and 13F combination reports. We also collect information on other managers listed in holdings and combination reports, including their names and available identifiers. For listed managers with missing CIKs, we identify them by searching EDGAR.

3.3.2 Proxy voting disclosures

We collect proxy voting records for institutional investment managers from Form N-PX filings covering the period from July 1, 2023 to June 30, 2024. Managers may file voting reports, combination reports, or notice reports. For managers filing voting reports, we extract proposal-level information including the issuer, CUSIP, meeting date, proposal description, number of shares voted, number of shares on loan, and vote direction. For managers filing combination reports, we aggregate the votes disclosed in the manager's own filing with those reported by the associated reporting persons, which are typically registered investment companies reporting the manager's votes on its behalf. For notice reports, managers either identify the reporting persons that disclose votes for them or state explicitly that they did not exercise voting power during the reporting period. In cases where a Form 13F filer does not submit an N-PX filing directly, we examine whether any listed "other managers" report proxy votes on its behalf and, if so, aggregate those votes back to the Form 13F filer. We then merge the resulting voting data with Form 13F holdings using CUSIP identifiers and record dates, allowing us to observe, for each institution-meeting pair, reported ownership,

votes cast, and shares on loan.[4]

These aggregation steps are necessary to retain several large institutions in the integrated ownership-voting sample, including the Big Three. State Street Corp. did not file an N-PX report at the parent level, BlackRock filed a notice report stating that it did not exercise voting power, and Vanguard filed a notice report identifying other persons reporting for the manager, including mutual funds and ETFs whose votes we aggregate to Vanguard at the meeting level. We similarly identify subsidiaries and affiliated reporting entities for State Street and BlackRock and aggregate their votes to the parent institution at the meeting level. Without this reconciliation, several large institutional owners would appear to have no or incomplete voting records despite voting activity reported through affiliated entities. More generally, requiring a one-to-one correspondence between N-PX and 13F filers at the CIK level would exclude institutions accounting for about half of the sample holdings value.

These examples also show why the distinction between registered-fund voting and other institutional-manager voting is not always clean at the filer level. Large Form 13F managers often combine registered funds, ETFs, separate accounts, and other advisory businesses, while holdings and proxy votes may be reported through a single filer or through affiliated reporting persons. We therefore construct ownership and voting measures at the institution-meeting level, so that votes are linked to the reported ownership unit even when the filings are made through different legal entities.[5]

Table 1, Panel A, summarizes institutional managers by N-PX filing type in our sample. Specifically, we report the universe of 9,354 13F filers, classified by Form 13F filing type (13F-HR, 13F-NT notice filings, and 13F combination reports) and by N-PX filing outcomes. There are 7,121 13F-HR filers, 39.5% of whom disclose proxy votes through N-PX voting reports. Another 2,653 managers file N-PX notice reports, including 62 whose votes are

[4] Internet Appendix IA.S2 provides a detailed description of the sample construction, including the treatment of different N-PX report types, the aggregation of votes reported by affiliated entities, and the reconciliation of voting and ownership disclosures, illustrated with representative examples of large institutional managers.

[5] Consider, for example, Northern Trust Corporation. It filed an institutional manager voting report on Form N-PX listing Northern Trust Co., Northern Trust Investments, Inc., and Northern Trust Global Investments Ltd. as included institutional managers. Northern Trust Investments, Inc.'s Form ADV indicates that a significant portion of its business is in investment companies. This example illustrates why we construct ownership and voting measures at the institutional level rather than attempting to draw a sharp boundary between mutual fund and other institutional business.

reported by other reporting persons, 465 that report no voting power, and 2,126 that disclose a policy of not voting. In addition, 1.3% of 13F-HR filers submit N-PX combination reports. Finally, 1,563 13F-HR filers do not have a corresponding N-PX filing, including 1,522 that appear obligated to file (i.e., they are not new 13F filers that have begun filing in 2024).

[Insert Table 1 here.]

Following the same steps used to classify 13F-HR filers, we also classify 13F-NT and combination filers into six groups, as reported in Table 1, Panel A. For 13F-NT filers, the proportions filing regular N-PX voting reports and disclosing a policy of not voting are substantially lower than those of 13F-HR filers, while the proportions whose votes are reported by other reporting persons, who report no voting power, and who do not file Form N-PX are much higher. For combination filers, the distribution across categories is generally similar to that of 13F-HR filers, except for a lower percentage disclosing a policy of not voting and a much higher percentage filing N-PX combination reports.

The last row of Table 1, Panel A, reports statistics for the integrated sample of 13F filers with usable holdings information. 13F-NT filers who report proxy votes are absorbed into parent institutions that report holdings. In addition, combination filers' holdings and proxy votes for each meeting are merged with those of other reporting managers when the latter are subsidiaries or affiliated entities. The resulting final sample includes 7,293 institutional managers, of whom 42.7% disclose valid proxy votes, 6.8% do not exercise voting power, and 29.6% have a policy of not voting, with the remainder not filing an N-PX.

The count-based distribution in Panel A treats all managers equally, but managers differ substantially in economic size. Panel B therefore reweights the N-PX filing categories by 13F portfolio value from the June 2024 Form 13F cover page and by the dollar value of sample holdings measured at the quarter end immediately preceding each meeting's record date to assess the economic coverage of the integrated ownership-voting sample. Both rows show that the count-based percentages mask substantial differences in institutional size across Form N-PX categories. Although fewer than half of 13F filers appear in the N-PX voting-report category, these filers account for 88.9% of the aggregate value of 13F-reportable holdings and 95.2% of the sample holdings value. Managers outside the N-PX voting-report category are therefore concentrated among economically small institutions, while the large institutions

that hold most of the dollar value of reported institutional equity ownership are disproportionately represented among managers with voting reports.

While Panel B shows that the N-PX voting-report category accounts for most of the economic value of reported holdings, it does not show how each reporting institution's own portfolio holdings are reflected in observed votes. Panel C therefore reports the cross-sectional distribution, across institutions, of the share of each institution's reported holdings that is voted. The mean institution-level share of reported holdings voted is 75.8%, while the median is 90.0%. Coverage is lower when holdings are weighted by position value. The mean institution-level share of reported holding value voted is 70.9%, and the median is 77.4%. These gaps are consistent with voting authority not being exercised through the reporting institution, for example when clients retain or direct voting rights, although some part of the gap may mechanically reflect differences between quarter-end holdings and record-date voting rights. These statistics show that even among institutions for which voting information is observed, reported holdings do not map one-for-one into observed votes. The upper tail of the value-weighted measure exceeds one, which can occur when institutions exercise voting authority over shares outside their reported 13F holdings.

Taken together, Panels A through C show that the Form N-PX reporting regime provides broad economic coverage of institutional ownership, but that observed voting remains incomplete relative to reported holdings at the institution level. This distinction motivates our analysis below, which uses stated voting-authority arrangements to interpret voting utilization as the conversion of reported ownership into votes cast by the reporting institution.

3.4 Registered investment advisers' stated voting policies

Advisers' stated proxy voting policies are identified from Form ADV filings. Filings for registered investment advisers and exempt reporting advisers during 2022-2025 are downloaded from the SEC's Investment Adviser Registration Depository, and the sample is restricted to filings made in 2023. For advisers with an available Part 2A brochure, we use the disclosures in Item 17 to classify proxy voting policies into a small set of economically meaningful voting-authority categories.[6]

[6] Internet Appendix IA.S3 describes Form ADV data collection, adviser characteristics, and ADV coverage within the Form 13F universe. Form 13F filers that file Form ADV, have a parent or subsidiary that files

The final classification yields four proxy voting policy categories:

1. *Strict no-voting policy*: the adviser has a stated policy of not voting client securities. Most advisers in this category make a firm-wide choice not to vote, with a minority doing so because of the asset class involved, such as fixed income or private equity.

2. *Consultative non-voting policy*: the adviser retains a non-voting default but reduces clients' information-acquisition and decision-making costs by offering proxy-voting advice or recommendations. Support differs across advisers, ranging from responding to specific client inquiries to providing research and voting recommendations.

3. *Discretionary stewardship policy*: the adviser accepts authority to vote client securities on clients' behalf. Variation in this category reflects differences in voting objectives (e.g., shareholder value maximization versus ESG considerations), the degree of independence from management recommendations, and the role of third-party proxy advisers, whether used as research inputs or as primary decision-makers.

4. *Segmented voting policy*: voting rights are allocated differently across funds, accounts, client types, legal structures, or affiliated entities. This segmentation can arise along several dimensions, such as account type (e.g., pooled funds vs. separate accounts) and whether the adviser's discretion is explicitly subject to active client instruction.

These categories help distinguish settings in which voting authority is centralized with the adviser from those in which voting authority is retained by clients, or allocated differently across accounts. This distinction is important because the voting arrangement determines whose preferences and information are reflected in governance decisions, as well as who bears the costs associated with voting-related activity. As a result, observing that an adviser participates in voting does not by itself reveal whether the vote reflects the adviser's own views or those of its clients. Conversely, observing that an adviser does not itself vote does not imply that the adviser bears no governance-related costs. Advisers in the consultative non-voting category may provide proxy-voting advice, recommendations, or other support to clients even while declining to accept voting authority. Table 2 presents representative

Form ADV, or are exempt reporting advisers filing Form ADV Part 1 account for 84.7% of Form 13F filers and 87.5% of aggregate 13F portfolio value. Internet Appendix IA.S4 describes the classification of ADV Item 17 voting disclosures.

excerpts for each category.[7]

[Insert Table 2 here.]

Some advisers file more than one Form ADV Part 2A brochure within a calendar year. This may occur when different legal entities, business units, or client segments within an adviser group provide distinct advisory services. As a result, a single adviser can have multiple Item 17 disclosures describing proxy voting practices that apply to different parts of its advisory business.[8] We therefore implement the classification in two steps. First, we classify each Item 17 disclosure into one of the four voting-policy categories. We then aggregate these brochure-level classifications to the adviser level. If all brochures associated with an adviser report the same category, we assign that category to the adviser. If an adviser's brochures report different categories, we classify the adviser as having segmented voting arrangements, reflecting heterogeneity in voting authority across its advisory activities.

Table 3 summarizes the distribution of stated voting-authority arrangements in the Form ADV sample. We find substantial variation in advisers' proxy voting authority arrangements. The largest group of advisers (26.3%) accepts authority to vote client securities. Nearly as many advisers either do not vote client securities (24.8%) or retain a non-voting default while offering consultative advice to clients (26.1%). Another 19.2% of advisers report segmented voting arrangements, under which voting authority varies across accounts or capital pools. The table also reveals substantial differences in adviser size across policy categories, most clearly in median AUM. Advisers that accept voting authority and advisers with segmented voting arrangements have median AUM of $0.8 billion and $0.7 billion, respectively, compared with about $0.2 billion among advisers in both non-voting categories. Average AUM

[7] Some institutional clients post investment management agreements and templates online. Internet Appendix Table IA.2 provides selected illustrative excerpts from such documents. These examples provide a contract-level view of the same variation in voting-authority allocation reflected in the Form ADV disclosures. Proxy voting authority may be delegated to the adviser, retained by the client, or made subject to client instructions or policies.

[8] SEC Rule 204-3 permits advisers to prepare multiple firm brochures when advisory services differ across client types. Specifically, 17 C.F.R. § 275.204-3(e) states: "If you provide substantially different advisory services to different clients, you may provide them with different brochures, so long as each client receives all information about the services and fees that are applicable to that client." See https://www.ecfr.gov/current/title-17/chapter-II/part-275/section-275.204-3. We do not count amendments to the same brochure as separate brochures.

shows a similar broad pattern, although it is more affected by very large advisers.

[Insert Table 3 here.]

The ADV voting-authority classifications exhibit substantial persistence over time. When we expand the sample to the three-year period 2023-2025, the cross-sectional distribution of voting-policy categories remains stable, and most advisers remain in the same category from one year to the next. This evidence supports the interpretation that the Item 17 classifications capture persistent underlying voting arrangements. Internet Appendix Table IA.4 reports the yearly distribution of classifications and the one-year transition matrices.

As a further check on the informational content of Item 17, we examine how advisers describe proxy advisory firms. Proxy advisers are part of the infrastructure through which many registered advisers research, formulate, and implement proxy voting decisions, and prior work shows that they play an important role in institutional voting while emphasizing that investor reliance on these firms is heterogeneous (e.g., Iliev and Lowry (2015), Malenko and Shen (2016), Brav et al. (2024), Shu (2024)). The fact that Item 17 narratives describe proxy advisers in distinct functional roles, including providers of research, sources of voting guidelines, default recommendation sources, and administrative vote-execution agents, indicates that these disclosures contain meaningful information about advisers' voting infrastructure. Internet Appendix Table IA.5 summarizes the prevalence and forms of proxy adviser reliance among advisers that accept voting authority or have segmented voting arrangements. Approximately 20% of advisers in these categories explicitly reference proxy advisers in some capacity, with references spanning research support, guideline adoption, recommendation-based voting, and vote execution. Together, the persistence evidence and the proxy-adviser classifications provide additional validation that the ADV disclosures capture economically meaningful variation in advisers' voting-authority arrangements.

4 From reported ownership to voting control

This section examines how reported institutional ownership translates into realized voting control. We begin at the institution-company level by defining voting utilization, which compares the number of shares voted at a meeting to the institution's reported ownership

before the record date. We then aggregate this utilization measure to the institution level to document how voting utilization varies across institutional investors.

Let there be I institutions and J companies. Each company j has a record date t_j for its annual meeting, which falls within one of the following calendar quarters: {23Q3, 23Q4, 24Q1, 24Q2}. We denote by O_{ij} the Form 13F holdings of institution i in company j as of the quarter end immediately preceding the record date: $O_{ij} = O_{ij}^{\text{sole}} + O_{ij}^{\text{shared}} + O_{ij}^{\text{none}}$.

As reviewed in Section 2, registered funds and 13F managers now report, for each meeting, both the number of shares voted (V_{ij}) and the number of shares on loan and not recalled (L_{ij}). We define institution-company voting utilization for institution i in company j as the ratio of shares voted at the meeting to reported ownership measured at the quarter end immediately preceding the meeting record date:

$$\delta_{ij} \equiv \frac{V_{ij}}{O_{ij}}. \tag{1}$$

This ratio measures the effective conversion of reported ownership into voting control by the reporting institution. A value of $\delta_{ij} = 1$ indicates that the number of shares voted at the meeting equals reported ownership measured at the quarter end preceding the record date. Values of $\delta_{ij} < 1$ indicate incomplete transmission of reported ownership into votes cast by the reporting institution. Values of $\delta_{ij} > 1$ occur when an institution votes more shares than it reports as owned, for example because it exercises voting authority over shares outside its reported 13F holdings.

A potential concern is that δ_{ij} may partly reflect trading between the 13F reporting date and the record date. If an institution sells (buys) shares during that interval, the 13F-reported holdings O_{ij} will overstate (understate) its true record-date ownership, mechanically lowering or raising measured voting utilization even in the absence of lending or differences in the exercise of voting authority. We show below that our results are unchanged when we (i) restrict attention to meetings whose record dates fall near the beginning of the quarter when ownership is reported and (ii) limit the sample to companies with small ownership changes between adjacent quarters. These analyses indicate that inter-quarter trading cannot explain the systematic patterns in δ_{ij} documented below, so low utilization should not be interpreted mechanically as trading between the 13F reporting date and the record date.

For intuition, Figure 2 illustrates how reported ownership maps into realized voting control. The figure contrasts reported 13F ownership with the number of shares voted at the meeting and the number of shares on loan and not recalled at the record date. It illustrates cases in which votes fall short of reported ownership because voting authority is not exercised through the reporting institution or because shares are on loan at the record date, as well as cases in which institutions vote more shares than they report owning. Internet Appendix Tables IA.6 and IA.7 provide detailed voting-utilization observations for two institutions.

[Insert Figure 2 here.]

We next move from institution-company voting utilization to an institution-level characterization of how reported ownership is converted into votes across the institution's portfolio. For each institution, we summarize this mapping using the average of δ_{ij} across portfolio companies, denoted $\bar{\delta}_i$, and the within-portfolio standard deviation of δ_{ij}, denoted $\sigma_{\delta,i}$. These two statistics provide a reduced-form description of each institution's ownership-voting mapping.

Institutions with low $\bar{\delta}_i$ and low dispersion exhibit uniform under-utilization, systematically voting fewer shares than they report owning. Those with $\bar{\delta}_i$ near one and low dispersion display close alignment between ownership and control. Institutions with similar means but high $\sigma_{\delta,i}$ show selective control, applying voting authority unevenly across firms, as would occur when voting authority differs across investment mandates.

Table 4 summarizes the distribution of $(\bar{\delta}_i, \sigma_{\delta,i})$ across institutional managers, providing an overview of how reported ownership translates into realized voting control. We restrict attention to institutions with at least ten observable voting-utilization observations. When the shares-voted field is missing, we assign a value of zero only if (i) the institution has voted on other portfolio companies and (ii) the institution holds shares in the company at the quarter ends immediately before and after the record date. The sample described in Table 4 therefore excludes institutions that file a Form N-PX notice explicitly stating that they do not vote, even when ownership is observed around the record date. Excluding these explicit non-voting institutions allows Table 4 to characterize the distribution of voting utilization among active voting institutions, so incomplete utilization in the table is not driven mechanically by institutions that disclose that they do not vote.

[Insert Table 4 here.]

To provide information on the role of securities lending, the table also reports the ratio L_{ij}/O_{ij}, which measures the fraction of an institution's reported beginning-of-quarter holdings that are on loan at the record date. We aggregate this lending ratio to the institution level using the same weights used to construct the corresponding institution-level statistics and report it alongside the voting-utilization statistics.[9]

Panel A shows that voting utilization is substantially below one for many institutional investors. On average, institutions vote substantially less than their reported ownership, with the mean (median) value of $\bar{\delta}_i$ equal to 0.766 (0.823). At the same time, the distribution of $\bar{\delta}_i$ is highly dispersed, with a nontrivial fraction of institutions voting only a small share of their reported holdings and others exhibiting near-full alignment between ownership and control.

The within-portfolio standard deviation $\sigma_{\delta,i}$ is sizable for the median institution, indicating that many managers apply voting authority unevenly across portfolio companies rather than following a uniform institution-level voting rule. This pattern is consistent with segmented exercise of voting authority across client accounts and investment mandates. In addition, securities lending accounts for a relatively small fraction of incomplete utilization, as the average fraction of shares on loan is modest relative to the difference between reported ownership and realized voting.[10]

Panel B shows that voting utilization varies systematically across institution types. We classify the institutions included in Panel A into asset owners, investment advisers, financial intermediaries, trading firms, and other institutions. Investment advisers, which include asset

[9] We apply winsorization at the observation level as follows. All voting-utilization observations are pooled across filers and the 99th percentile of this pooled distribution is computed. Any observation δ_{ij} above this cutoff is winsorized to the cutoff value. We winsorize L_{ij}/O_{ij} using the same procedure. Institution-level statistics are then computed from these winsorized values.

[10] Table IA.8 in the Internet Appendix provides several supporting diagnostics. Low voting utilization and its heterogeneity are not due to trading between the beginning-of-quarter ownership measure and the record date. We find similar evidence when restricting attention to meetings for which the two dates fall within 10 days (Panel A) and to institution-company pairs with quarter-to-quarter ownership changes of no more than 5% (Panel B). Incomplete utilization is not concentrated among small institutions, as average utilization is similar across size quintiles (Panel C), and value-weighted institution-level averages are similar to the baseline equal-weighted averages (Panel D).

managers, hedge funds, venture capital firms, private equity firms, and wealth managers, account for most of the sample, with 2,140 institutions. Their average value of $\bar{\delta}_i$ is 0.751, close to the full-sample average in Panel A. Financial intermediaries, including banks, broker-dealers, insurance companies, trust banks, and trust companies, also exhibit incomplete utilization with an average of 0.821.

Utilization is highest among asset owners, which include pension funds, family offices, foundations, nonprofits, sovereign wealth funds, charities, and endowments, with an average value of 1.047. Values of $\bar{\delta}_i$ above one are consistent with voting rights being exercised for shares outside the institution's reported 13F discretion. For example, a pension fund may vote shares managed by external advisers, so that votes cast exceed the holdings it reports under its own 13F filing. This evidence further illustrates that reported holdings and reported votes do not always correspond to the same organizational or authority boundary. By contrast, trading firms have substantially lower voting utilization, although this group contains only three institutions. Overall, Panel B indicates that incomplete utilization is not confined to a single type of intermediary, but is present across the main institutional categories in the Panel A sample.

Panel C focuses on the largest institutional investors for which voting data are available. We rank institutions by reported 13F portfolio value within this voting-data sample and report the mean and median of $\bar{\delta}_i$ for the Big Three, the remaining institutions among the Top 10, and institutions ranked 11 to 25, 26 to 50, and 51 to 100. The Big Three have a mean $\bar{\delta}_i$ of 0.730 and a median of 0.739, indicating a sizable gap between reported ownership and observed voting even among the largest asset managers. Incomplete utilization is also meaningful across the other large-institution groups, with mean $\bar{\delta}_i$ below one through the Top 50 groups and close to one for institutions ranked 51 to 100. Thus, incomplete voting utilization is not confined to smaller or less prominent institutions.

Table 4 shows that the mapping from reported ownership to votes cast by the reporting institution varies substantially across institutions and, within institutions, across portfolio companies. The natural question is what generates this variation. We turn next to advisers' stated voting-authority arrangements, which allocate voting authority before any meeting takes place. Section 6 then returns to the variation in utilization across institution-company pairs and firms and examines its relation to shareholder participation and voting outcomes.

5 Adviser-client arrangements and voting authority

Section 4 documented substantial heterogeneity in voting utilization across institutions and, within institutions, across portfolio companies. This section asks whether that heterogeneity is related to the ex-ante allocation of voting authority. We first examine how advisers' stated voting arrangements vary with their business models and contractual characteristics, and we then examine whether these stated voting arrangements are reflected in how advisers participate in the Form N-PX proxy voting disclosure regime.

Advisers' proxy voting policies can be viewed as equilibrium outcomes of contracting between end investors and asset managers. Advisory contracts specify fees, investment mandates, portfolio-management discretion, client reporting, and governance services. The allocation of voting authority is itself a contractual choice between clients and advisers. Voting rights may be delegated to advisers, retained by clients, or allocated through hybrid arrangements that vary across accounts. Observed voting-authority arrangements therefore reflect the mix of clients that advisers choose to serve and the contractual terms under which voting authority is allocated.

5.1 Adviser characteristics and voting authority

To examine how advisers' stated voting-authority arrangements vary with their organizational and contractual characteristics, Table 5 reports average marginal effects from a multinomial logit model that relates Form ADV voting-authority classifications to adviser characteristics.[11]

The explanatory variables are constructed from Form ADV, as described in Internet Appendix IA.S3. Adviser size is measured by regulatory assets under management (AUM), which captures economies of scale in compliance and stewardship as well as reputational incentives to engage in proxy voting. Organizational complexity is proxied by the logarithm of the number of clients. We also include the share of regulatory AUM managed under non-discretionary mandates. This variable captures the extent to which advisers do not have discretionary authority over client accounts, so client instruction or direct client control may

[11] Internet Appendix Table IA.9 reports the corresponding multinomial-logit coefficient estimates, with "does not vote" as the omitted category.

play a larger role. As a result, a higher share of non-discretionary AUM is expected to be associated with a lower propensity to adopt centralized voting arrangements.

To capture client structure, the specification includes the percentage of regulatory AUM attributable to institutional clients and pooled investment vehicles. Institutional clients include pension funds, endowments, foundations, insurance companies, and other institutional mandates, where voting authority may be retained by the client or exercised subject to client-specific instructions. Pooled vehicles include mutual funds, ETFs, private funds, and other pooled vehicles, where voting authority is more likely to be centralized at the adviser or fund level. Because the client-type AUM shares partition the adviser's regulatory AUM across retail and high-net-worth clients, institutional clients, and pooled vehicles, increases in institutional-client or pooled-vehicle AUM share come at the expense of the residual retail and high-net-worth category. The marginal effects should therefore be interpreted as changes in voting-policy probabilities associated with shifting AUM away from retail mandates toward institutional mandates or pooled vehicles. Finally, we include an indicator for financial-industry exposure, which equals one if the adviser reports broker-dealer, banking, or related financial activities or affiliations, and captures potential conflicts of interest and regulatory constraints on the exercise of proxy voting authority.

[Insert Table 5 here.]

We find that adviser scale, discretion, and organizational complexity are systematically related to stated voting policies. Larger advisers are less likely to be classified in either non-voting category and more likely to accept voting authority or adopt segmented voting arrangements. By contrast, advisers with a larger share of non-discretionary AUM are more likely to be classified in the two non-voting categories and less likely to accept voting authority or adopt segmented arrangements, consistent with limited discretionary authority reducing the adviser's role in proxy voting. Conditional on AUM and client composition, advisers with more clients are less likely to accept voting authority and more likely to use consultative or segmented arrangements, suggesting that client complexity may make centralized discretionary voting more difficult.

Client composition also plays an important role. A higher institutional-client AUM share is associated with a substantially higher probability of segmented voting arrangements

and lower probabilities of the other voting-policy categories. This pattern suggests that institutional-client exposure is associated with client-specific allocation of voting authority rather than a uniform shift toward centralized adviser voting. The pooled-vehicle share displays a different pattern. Advisers with a larger pooled-vehicle AUM share are less likely to maintain a consultative non-voting policy and more likely to accept voting authority or adopt segmented voting arrangements. This pattern is consistent with pooled vehicles requiring more formal allocation of voting authority, either through centralized voting at the adviser level or through segmentation across capital pools.

Finally, financial-industry exposure is associated with a higher probability of strict no-voting and a lower probability of segmented voting, while its marginal effects on consultative non-voting and accepting voting authority are not statistically significant. Taken together, these patterns indicate that ADV categories capture features of advisers' business models and client mandates, rather than ad hoc choices about whether to vote in particular meetings.

5.2 Voting authority and N-PX reporting

We next examine whether advisers' stated voting-authority arrangements have operational content by studying how they map into the Form N-PX proxy voting disclosure regime. Form N-PX distinguishes between advisers that report proxy votes directly, advisers whose votes are reported by other entities, and advisers that report no voting power or a policy of not voting. Table 6 relates advisers' stated voting-authority arrangements from Form ADV Item 17 to realized Form N-PX filing outcomes. The table reports row-normalized percentages, so that each row shows how advisers within a given ADV category distribute across N-PX reporting outcomes.[12]

[Insert Table 6 here.]

We find a strong correspondence between stated voting-authority arrangements and N-PX filing behavior. Advisers in the two non-voting categories are overwhelmingly associated

[12] The sample in Table 6 is a subset of the merged 13F and N-PX filers in Table 1 that can be matched to Form ADV voting-policy classifications. It therefore excludes merged 13F/N-PX filers that do not file Form ADV. We also exclude filers owning multiple investment advisory firms, since these cases do not yield a unique Form ADV voting-policy classification.

with N-PX outcomes indicating no direct voting activity. Among advisers that explicitly report a policy of not voting client securities, 64% file N-PX notice reports disclosing a policy of not voting. The corresponding share is even higher, 75%, among advisers that do not vote by default but provide proxy-voting advice. In both categories, additional advisers report having no voting power or do not file Form N-PX, while only a very small fraction file voting reports. These patterns indicate that ADV categories in which advisers do not accept voting authority map into non-participation by the adviser in the N-PX voting record. The consultative non-voting category is especially informative because advisers in this category generally do not appear as voting through N-PX, yet their ADV disclosures state that they offer proxy-related advice or recommendations to clients who retain voting authority. Thus, adviser non-voting need not imply the absence of proxy-related services or governance effort. It may instead reflect an arrangement in which the client retains the vote while the adviser supplies information, advice, or recommendations.

By contrast, advisers that accept authority to vote client securities are far more likely to file N-PX voting reports, with about 76% reporting proxy votes directly and only a small share filing notice or combination reports. Advisers with segmented voting arrangements also frequently report proxy votes directly, with about 62% filing voting reports, but display more heterogeneous N-PX outcomes, including higher rates of notice filings and non-filing. This pattern is consistent with voting authority varying across accounts or capital pools within the same advisory firm.

Overall, Table 6 shows that Form ADV voting disclosures have substantial operational content. Advisers' ex ante voting-authority arrangements strongly predict their N-PX filing outcomes. Having established both the heterogeneity in voting utilization and its relation to stated voting arrangements, we next examine how voting utilization relates to shareholder participation and voting outcomes at the firm and institution-company levels.

6 Voting utilization and governance outcomes

Having related the heterogeneity in voting utilization to advisers' stated voting arrangements, we now examine whether the mapping from reported ownership to votes cast by reporting institutions is related to shareholder participation and voting outcomes. We first

aggregate utilization to the firm level and study its relation to aggregate turnout and proposal outcomes. We then return to the institution-company level to examine variation in utilization and support for management.

6.1 Firm-level voting utilization and voting outcomes

We study voting utilization at the firm level by aggregating institution-company voting utilization across all institutional holders of a firm. Let $\mathcal{I}_j$ denote the set of institutions that report holdings in firm j on Form 13F. We define firm-level voting utilization as

$$U_j \equiv \sum_{i \in \mathcal{I}_j} \omega_{ij}\, \delta_{ij} = \frac{\sum_{i \in \mathcal{I}_j} V_{ij}}{\sum_{i \in \mathcal{I}_j} O_{ij}}, \tag{2}$$

where $\omega_{ij} = O_{ij} / \sum_{k \in \mathcal{I}_j} O_{kj}$ is institution i's share of total 13F ownership in firm j, and $\delta_{ij} = V_{ij}/O_{ij}$ is institution-company voting utilization defined in Section 4. Thus, U_j measures the fraction of reported 13F institutional ownership in firm j that is converted into votes cast by reporting institutions. Lower values of U_j indicate that a larger share of institutional ownership is held through arrangements in which voting authority is not exercised through the reporting institution.

To illustrate the mapping from ownership to realized voting, Figure 3 plots cumulative institutional ownership and cumulative votes cast by the largest institutional blockholders within each firm-size tercile, both scaled by shares outstanding. For each firm, institutional investors are ranked by their reported 13F ownership, and cumulative ownership and cumulative votes are computed as the number of largest blockholders increases. The two curves therefore correspond to the denominator and numerator of equation (2), respectively, and their divergence reflects the incomplete conversion of reported ownership into votes captured by U_j.

[Insert Figure 3 here.]

Across all size terciles, cumulative voting lags cumulative ownership, indicating that reported institutional ownership overstates realized voting participation even among the largest blockholders. Importantly, the gap persists among the economically dominant institutional in-

vestors rather than being driven solely by small residual holders. To give a concrete sense of magnitudes, consider first firms in the smallest size tercile. Among these firms, the five largest institutional blockholders together hold on average approximately 21% of shares outstanding. However, the votes actually cast by these same five institutions amount to only about 16%, on average. To reach a level of realized voting equal to the ownership share of the top five blockholders, one must include roughly the ten largest blockholders. In other words, reported blockholder ownership overstates the votes these institutions actually cast.

A similar pattern appears in the largest size tercile. The ten largest institutional investors hold approximately 45% of shares, on average, yet cast only about 38% of votes. Matching the ownership share of the top ten holders requires extending the voting curve to roughly twenty blockholders. Thus, even among large capitalization firms dominated by institutional owners, realized voting control lags reported ownership in economically meaningful ways.

We next examine whether firm-level variation in voting utilization is associated with voting outcomes. A priori, the relation between firm-level voting utilization and voting outcomes is ambiguous. If lower utilization reflects voting authority being retained by clients or exercised outside the reporting 13F institution, then higher utilization corresponds to more centralized exercise of voting authority by reporting institutions. To the extent that centralized institutional voting is associated with greater support for management, firms with higher utilization should exhibit higher support rates and fewer close votes. One possible mechanism is that reporting institutions face relationship or business-tie considerations that differ from those of underlying clients. We therefore ask whether the allocation of voting authority embedded in institutional voting arrangements is associated with support for management.

The unit of observation is a firm-proposal pair (j, p), with proposals consisting of say-on-pay and golden parachute votes. We estimate the following cross-sectional specification:

$$Y_{jp} = \alpha + \beta U_j + X_j'\Gamma + \tau_q + \varepsilon_{jp}, \tag{3}$$

where Y_{jp} denotes proposal-level voting outcomes, including proposal passage, support rate, support margin, and an indicator for whether a vote is close. The sample consists primarily of say-on-pay proposals, with golden parachute proposals accounting for only 3.9% of firm-proposal observations, and only three meetings featuring both say-on-pay and golden

parachute proposals. We define passage using a 70% votes-cast threshold. This threshold follows ISS's treatment of say-on-pay outcomes below 70% support as reflecting meaningful shareholder concern, and we apply the same cutoff to golden parachute proposals for consistency. The cutoff therefore captures whether the proposal received strong, rather than merely majority, shareholder approval.[13] A close vote is defined as one in which the support rate is within 5% of the passing threshold. U_j is firm-level institutional voting utilization, defined as in Equation (2). X_j is a vector of firm-level controls, which include firm size, profitability, and institutional ownership, and τ_q denotes meeting-quarter fixed effects. Because these outcomes include votes from all shareholders, the coefficient β captures the association between institutional voting utilization and aggregate voting outcomes.

As shown in Table 7, firm-level voting utilization is significantly associated with more management-favorable voting outcomes. Economically, a one standard deviation increase in 13F utilization, equal to 20.4 percentage points, is associated with increases equal to 2.4% of the mean passage rate, 1.7% of the mean support rate, and 3.8% of the mean support margin. These magnitudes are modest, consistent with the fact that say-on-pay proposals are generally high-support voting items, but are similar to those associated with a one standard deviation increase in profitability, which equal 2.4%, 2.1%, and 4.6% of the corresponding dependent-variable means. The effect on close votes is economically larger. A one standard deviation increase in utilization is associated with a decline equal to 29% of the unconditional close-vote rate, compared with about one-half of the unconditional close-vote rate for a one standard deviation increase in profitability. These patterns indicate that variation in voting utilization among reporting institutions is informative about aggregate voting outcomes. They are also consistent with the interpretation that more centralized voting authority at reporting institutions is associated with greater support for management, potentially reflecting relationship considerations such as business ties with portfolio companies (Davis and Kim, 2007; Cvijanović et al., 2016).

[Insert Table 7 here.]

As noted above, firm-level outcomes include votes from all shareholders, whereas voting utilization is measured only for 13F institutions. We therefore interpret the results in Table

[13] Our results are qualitatively similar when we use 50% as the passing threshold.

7 as firm-level associations rather than causal effects of institutional voting.

6.2 Institution–company variation in voting utilization

The firm-level analysis aggregates voting utilization across all institutional holders of a firm. We next return to the institution-company level to study the variation in utilization that underlies these aggregate measures. Within-institution variation in δ_{ij} arises naturally once reported ownership is viewed as an aggregation of underlying client accounts. Clients differ not only in whether they delegate voting authority to the adviser, but also in the securities they hold through the adviser. As a result, the client mix behind institution i's reported position in firm A may differ from the client mix behind its position in firm B. If accounts with and without voting authority exercised through the reporting institution hold different portfolios, the fraction of reported ownership converted into votes cast by the reporting institution will vary across portfolio companies even for the same institution. Because we do not observe client-level portfolios or client-level delegation choices, δ_{ij} captures the joint outcome of these two unobserved margins.

This reasoning also implies that the relation between an adviser's stake size in a given company and voting utilization cannot be determined ex ante. A larger reported position may reflect a larger allocation by clients that have delegated voting authority to the adviser, in which case portfolio weight should be positively related to δ_{ij}. But a larger position may instead reflect a larger allocation by clients that retain voting authority, direct votes themselves, or are served through mandates in which voting authority is exercised elsewhere, in which case portfolio weight should be negatively related to δ_{ij}. Because we do not observe the client-level portfolios or authority-allocation choices associated with those portfolios, our framework does not generate a signed prediction for the relation between portfolio weight and δ_{ij}. Portfolio weight may capture the economic importance of the holding, but not necessarily the fraction of the reported position over which the reporting institution exercises voting authority.

Table 8 examines institution–company variation in voting utilization using institution-company-proposal observations. We estimate specifications of the form

$$\delta_{ij} = \alpha_i + \beta_1 \phi_{ij} + \beta_2' X_{jp} + \beta_3' Z_j + \varepsilon_{ijp}, \tag{4}$$

where δ_{ij} is voting utilization for institution i at firm j's meeting and is common across proposals at the same meeting, ϕ_{ij} is the portfolio weight of firm j in institution i's portfolio, X_{jp} contains proposal characteristics, and Z_j contains firm characteristics. All specifications include institution fixed effects, so the estimates are identified from variation across portfolio companies within the same institution. Column (1) replaces the proposal and firm controls with firm-proposal fixed effects, γ_{jp}, which absorb proposal and firm characteristics and identify the portfolio-weight coefficient from differences across institutions voting on the same proposal. The remaining columns include the proposal and firm controls, allowing us to estimate the association between utilization and proposal characteristics, including golden parachute votes, proxy contests, and close votes. Standard errors are two-way clustered by institution and firm.

The proposal characteristics help assess whether utilization varies with meeting-specific voting importance. If δ_{ij} primarily reflected an institution's meeting-by-meeting choice over how many shares to vote, then consequential or contested votes might be associated with higher utilization. In our framework, however, voting authority is largely allocated before meetings through client mandates and adviser-client arrangements. Proposal characteristics therefore need not increase δ_{ij}. They may still correlate with utilization if voting authority differs by proposal type, if clients retain or direct votes on particular matters, or if firms facing these proposals are held by different mixes of delegated and non-delegated accounts.

[Insert Table 8 here.]

The central result in Table 8 is a negative and statistically significant relation between portfolio weight and voting utilization. Column (1), which includes both institution and firm-proposal fixed effects, identifies this relation from variation across institutions voting on the same proposal, while absorbing each institution's average voting-utilization level. The negative coefficient indicates that institutions for which a given firm represents a larger share of the portfolio vote a smaller fraction of their reported ownership in that firm. This is not the pattern one would expect if utilization primarily reflected a meeting-level incentive to vote a larger reported stake. Instead, larger reported positions may disproportionately reflect accounts or mandates in which clients retain voting authority or otherwise have voting

authority exercised outside the reporting institution.[14]

The remaining columns replace firm-proposal fixed effects with proposal and firm controls. In column (2), a one-standard-deviation increase in portfolio weight is associated with a 2.2 percentage point lower voting-utilization ratio. This magnitude is slightly larger than the corresponding one-standard-deviation effects of profitability and institutional ownership, which are 1.2 and 1.1 percentage points, respectively. It is smaller than the association with firm size, where a one-standard-deviation increase in log assets is associated with about a 4.0 percentage point higher voting-utilization ratio.

The proposal-level variables provide little evidence that voting utilization increases for more salient or contested votes. The golden parachute indicator is positive but statistically insignificant. Proxy contests are associated with lower voting utilization, with coefficients of about -0.035 that are statistically significant at the 5% level. Close votes are also negatively related to utilization, but the estimates are not statistically significant. The weak relation between proposal salience and voting utilization suggests that utilization does not appear to be driven primarily by meeting-level variation in vote importance, but may instead reflect the pre-existing allocation of voting authority across client accounts and mandates.

Finally, the explanatory power of the specifications changes little when firm-proposal fixed effects are replaced by observable proposal and firm controls. This evidence is consistent with the interpretation that voting utilization is shaped primarily by pre-existing voting-authority arrangements rather than by meeting-specific voting decisions. Voting utilization is likely shaped by client mandates and account structures determined before the meeting, rather than by the characteristics of a particular proposal. Firm and proposal characteristics may therefore matter more for how institutions vote once voting authority is exercised than for the number of reported shares over which that authority is exercised. We next turn from the amount of reported ownership voted to the direction of the votes cast.

[14] Since reported ownership enters both the numerator of portfolio weight, ϕ_{ij}, and the denominator of δ_{ij}, measurement error due to trading between the beginning of the quarter and the record date may induce a negative association between the two. We re-estimate the specifications in Table 8 on the subsample of meetings whose record dates fall within ten days of the quarter end at which ownership is measured. The portfolio-weight coefficient remains negative and highly statistically significant, indicating that the relation is not driven by measurement error in reported ownership. See Internet Appendix Table IA.10.

6.3 Voting utilization and support for management

The unit of observation is an institution i voting on proposal p at firm j, where proposals include say-on-pay and golden parachute votes. We estimate the following specification:

$$Support_{ijp} = \alpha_i + \gamma_{jp} + \beta_1 \delta_{ij} + \beta_2 \phi_{ij} + \varepsilon_{ijp} \tag{5}$$

where $Support_{ijp}$ equals one when all voted shares support management, zero when none support management, and takes a value between zero and one when the institution splits its votes. Proposals consist of say-on-pay and golden parachute votes. The specification includes institution fixed effects (α_i) and firm-proposal fixed effects (γ_{jp}). The key explanatory variable, δ_{ij}, is voting utilization, which measures the extent to which reported ownership is converted into votes cast by the reporting institution, and is defined in Equation (1). We also include the portfolio weight of firm j for institution i, defined as the value of the stock held divided by the institution's total portfolio value, to capture the economic importance of the position within the institution's portfolio.

[Insert Table 9 here.]

Columns (1) and (4) in Table 9 provide the baseline specifications for say-on-pay and golden parachute proposals, respectively, with both firm-proposal and institution fixed effects. The coefficient on δ_{ij} is positive and statistically significant in both columns. The firm-proposal fixed effects absorb proposal-specific determinants of support, including firm characteristics, meeting-level conditions, and the overall level of shareholder support for the proposal, while the institution fixed effects absorb time-invariant differences in institutions' general propensity to support management. The relation is therefore identified from within-institution variation across proposals, comparing cases in which the same institution votes a larger or smaller fraction of its reported ownership.

Columns (2) and (5) add the portfolio weight of the position to separate the voting utilization from the economic importance of the holding. The coefficient on δ_{ij} remains positive and statistically significant in both specifications, indicating that the relation between voting utilization and support for management is not driven simply by institutions being more supportive in larger portfolio positions. The economic magnitude is also meaningful relative to

portfolio weight. For say-on-pay proposals, a one standard deviation increase in δ_{ij} is associated with a 3.8 percentage point increase in support, compared with a 0.6 percentage point increase for a one standard deviation increase in portfolio weight. For golden parachute proposals, the corresponding effects are 4.3 and 3.5 percentage points, respectively. Thus, voting utilization is associated with support for management in magnitudes that are comparable to the economic importance of the position, and larger for say-on-pay proposals.

Columns (3) and (6) replace institution fixed effects with institution-type controls, using investment advisers as the omitted category. These specifications allow us to estimate differences in support for management across broad classes of institutional investors, while no longer absorbing time-invariant institution-level differences. The institution-type controls include asset owners, financial intermediaries, trading firms, and other institutions, where the latter includes trusts, closed-end funds, holding companies, and operating companies. The coefficient on δ_{ij} remains positive and statistically significant in both specifications.

The institution-type coefficients show that, relative to investment advisers, asset owners are significantly less likely to support management in both say-on-pay and golden parachute votes. This pattern is consistent with pension funds, endowments, foundations, and similar asset-owner institutions taking a more independent or monitoring-oriented stance in compensation-related votes. Trading firms are significantly more likely to support management, although this result should be interpreted cautiously given that it is based on very few institutions. By contrast, the coefficients on financial intermediaries are not statistically significant. Other institutions are not statistically distinguishable from investment advisers in say-on-pay votes, but are significantly more likely to support management in golden parachute votes.

Taken together, Table 9 complements the firm-level evidence in Table 7 by showing that institutions are more likely to support management when they vote a larger fraction of their reported ownership. Thus, utilization is related not only to how much reported ownership is voted, but also to the direction of the votes that are cast. The institution-type specifications also show that asset owners are less likely to support management than investment advisers, the omitted category. This pattern is consistent with differences across institutional types in how voting authority is exercised and whose preferences are reflected in observed votes.

6.4 Adviser characteristics and support for management

We next examine whether Form ADV adviser characteristics are related to support for management. This analysis complements the institution-proposal evidence by restricting attention to institutions that can be matched to Form ADV filings and asking whether observable adviser characteristics, including client composition and discretionary authority, are associated with the direction of institutional voting. We use this sample in two ways. First, we verify that the relation between voting utilization and support for management remains present in the ADV-matched subsample when institution fixed effects are included. Second, we replace institution fixed effects with adviser characteristics to ask whether the same adviser-level attributes that help explain voting arrangements and voting utilization also predict support for management.

Table 10 examines support for management among institutions matched to Form ADV filings, building on the analysis in Table 9. The dependent variable, $Support_{ijp}$, is defined in Section 6.3. The key explanatory variable remains voting utilization, δ_{ij}, and some specifications also include portfolio weight, ϕ_{ij}, defined as the share of institution i's portfolio invested in firm j. Columns (1)–(3) report results for say-on-pay proposals, and columns (4)–(6) report results for golden parachute proposals. Columns (1), (2), (4), and (5) include both firm-proposal and institution fixed effects, while columns (3) and (6) replace institution fixed effects with observable adviser characteristics from Form ADV. These characteristics capture adviser scale, client composition, discretionary authority, and financial-industry exposure.

[Insert Table 10 here.]

The estimates in columns (1), (2), (4), and (5) show that the evidence from Table 9 regarding the positive association between δ_{ij} and support for management for both say-on-pay and golden parachute proposals remains intact in the ADV-matched subsample when firm and institution fixed effects are included. Portfolio weight is also positively associated with support for management, significantly so for say-on-pay proposals and similar in sign to the estimates in Table 9. Thus, restricting the sample to Form ADV-matched institutions does not overturn the positive relation between voting utilization, portfolio importance, and support for management.

Columns (3) and (6) replace institution fixed effects with observable Form ADV adviser characteristics. The estimates show that these characteristics have predictive content for support for management. The economically largest and most consistent association is institutional-client exposure. A one-standard-deviation increase in the institutional-client AUM share is associated with a 3.5-percentage-point decrease in support for management on say-on-pay proposals and a 5.5-percentage-point decrease on golden parachute proposals. These magnitudes are substantially larger than the corresponding one-standard-deviation effects of portfolio weight, which are 0.6 and 3.0 percentage points, respectively. Because the client-type AUM shares are measured relative to the adviser's total AUM, greater institutional-client exposure should be interpreted as a shift away from retail and high-net-worth client exposure toward institutional mandates.

Other adviser characteristics also help explain voting behavior. Advisers with a larger share of non-discretionary AUM are more likely to support management in both say-on-pay and golden parachute votes. One interpretation is that non-discretionary mandates give advisers less authority, and potentially weaker incentives, to monitor management through voting, making support for management more likely when votes are cast. Financial-industry exposure is negatively associated with support for management, although the association is statistically significant only for golden parachute proposals. The coefficients on regulatory AUM, number of clients, and pooled-vehicle exposure are not statistically significant.

Because columns (3) and (6) exclude institution fixed effects, the coefficients are identified from cross-institution variation and may partly reflect omitted, persistent institution-level traits that are correlated with the included ADV variables, such as reliance on proxy-advisory firms, business ties, stewardship resources, or unobserved client preferences. With this caveat, the evidence indicates that Form ADV characteristics are associated not only with advisers' voting-authority arrangements and N-PX participation, but also with how votes are cast once voting authority is exercised.

7 Client participation in voting

The preceding analysis shows that reported institutional ownership does not translate one-for-one into votes cast by reporting institutions. A natural follow-up question is how much

of this gap is accounted for by underlying clients who retain or direct voting authority. We examine this question using a simple turnout decomposition that separates votes cast by reporting 13F institutions, votes cast by clients on institution-owned shares not voted by the institution, and votes cast by non-13F shareholders.

Let T_j denote aggregate turnout at firm j, scaled by shares outstanding S_j. For institution i, recall that O_{ij} denotes reported Form 13F holdings in firm j as of the quarter end immediately preceding the record date, and V_{ij} denotes the number of shares institution i votes at firm j's meeting. The difference, $O_{ij} - V_{ij}$, is the institution-owned position that the reporting institution does not vote. Whether anyone else can vote these shares depends on the institution's client structure. Investment advisers and financial intermediaries hold shares on behalf of clients, and clients who retain or direct voting authority may vote shares their institution does not. Asset owners, such as pension funds, endowments, foundations, sovereign wealth funds, and family offices, are terminal owners, so shares they leave unvoted cannot be voted further. Any voting authority an asset owner delegates to an external manager is captured elsewhere in the decomposition, among institutional votes when that manager is itself a 13F filer, and among non-13F turnout when it is not. We denote by C_j the set of 13F institutions holding firm j excluding asset owners.

Aggregate turnout at firm j is based on three groups of voters. The first group is the reporting institutions themselves, whose votes V_{ij} are observed directly. The second is the clients of advisers and intermediaries, who may vote the shares their institutions leave unvoted. Their votes are not separately observed, so we let $\pi_i \in [0, 1]$ denote the propensity of institution i's clients to vote the shares that institution i does not vote. Because a client that files its own Form 13F has its votes counted among institutional votes, π_i captures participation by clients who are not themselves reporting institutions. The third group is shareholders outside the reporting 13F institutions altogether. We let s_j^N denote the fraction of shares outstanding these shareholders hold and $\pi_j^N \in [0, 1]$ denote their turnout propensity. Aggregate turnout can then be written as

$$T_j \;=\; \frac{1}{S_j}\sum_i V_{ij} \;+\; \frac{1}{S_j}\sum_{i\in C_j}\big(O_{ij} - V_{ij}\big)\,\pi_i \;+\; s_j^N\,\pi_j^N. \tag{6}$$

The first term on the right-hand side captures votes cast by reporting institutions of all

types, including asset owners. The second term captures votes cast by clients on shares that the reporting institution does not vote, and the sum runs over C_j because unvoted shares of asset owners cannot be voted by anyone else. The third term captures turnout from non-13F shareholders. The decomposition rests on the accounting identity that every vote is cast on shares that appear in some holder's position, so the allocation of voting authority among reporting institutions determines in whose filings votes and holdings appear but leaves the firm-level sum unchanged.

Equation (6) contains one client propensity per institution and one non-13F propensity per firm, and thus cannot be estimated without further restrictions. We simplify it in two ways. First, we replace the institution-specific propensities with a common client participation rate, $\pi_i = \bar{\pi}$. This common rate is the average rate at which clients vote the shares their institutions leave unvoted. Second, we replace the firm-specific non-13F propensities with a common rate, $\pi_j^N = \pi^N$. The two participation rates are separately identified because the fraction of institutional ownership that is voted varies substantially across firms.

Under these restrictions, we move institutional votes to the left-hand side and obtain the firm-level cross-sectional regression

$$T_j \;-\; \frac{1}{S_j}\sum_i V_{ij} \;=\; \bar{\pi}\,\frac{1}{S_j}\sum_{i\in C_j}\big(O_{ij} - V_{ij}\big) \;+\; \pi^N s_j^N \;+\; \varepsilon_j. \tag{7}$$

The left-hand side is residual turnout, aggregate participation net of the votes reporting institutions cast themselves. The right-hand side attributes it to its only two possible sources, client voting on unvoted intermediated shares at rate $\bar{\pi}$ and turnout by non-13F holders at rate π^N. Because the decomposition is exhaustive, we estimate equation (7) without an intercept.

Table 11 reports the estimates. In the baseline specification in column (1), the client participation rate is 0.502 and the hypothesis that clients fully vote the shares reporting institutions leave unvoted is rejected with a t-statistic of -34.6. The estimated non-13F turnout rate is 0.574, reflecting participation by insiders, shareholders below the 13F threshold, and retail investors.

[Insert Table 11 here.]

The remaining columns assess the robustness of these estimates. Column (2) adds an unrestricted intercept. The estimated constant is small and positive, but in this unrestricted specification, the client participation rate declines to 0.368. Column (3) addresses the concern that reported holdings are measured at the preceding quarter end rather than at the record date, so that trading between the two dates introduces error into the unvoted position. Restricting the sample to meetings whose record dates fall within ten days of the quarter end at which ownership is measured, the client participation rate is 0.423. The estimate on this subsample lies between the baseline and intercept specifications. Across all three specifications, the client participation rate lies between roughly 0.37 and 0.50.

Columns (4) and (5) allow the participation rates to differ across firm-size terciles. Column (4) interacts both regressors with tercile indicators, so that each coefficient is the participation rate for the corresponding tercile. The client participation rate is nearly uniform across size groups, ranging from 0.418 to 0.438, consistent with the common client participation rate imposed in the baseline specification. The non-13F turnout rate, by contrast, rises steeply and monotonically with firm size, from 0.507 in the smallest tercile to 0.815 in the largest. This evidence is consistent with the idea that the composition of non-13F ownership varies with firm size. In small firms, shareholders outside the 13F universe are weighted toward retail investors, whereas in large firms the non-13F residual is more heavily weighted toward insiders and institutional investors below the reporting threshold, groups with high turnout propensities. Column (5) adds tercile indicators to the specification of column (4). The small- and mid-cap indicators are statistically insignificant, and the corresponding participation rates are close to those in column (4). In the largest tercile, the indicator is negative and statistically significant, and the client participation rate is somewhat higher, at 0.652, though estimated with considerably less precision. Even this estimate remains well below one.

Taken together, the participation estimates imply that clients vote about half of the shares their reporting institutions leave unvoted. Across all specifications, the client participation rate ranges from roughly 0.37 to 0.65, and the hypothesis of full client participation is rejected in every case. The decomposition then implies that the remainder of the voting rights attached to these shares is not exercised by any party. Incomplete voting utilization by reporting institutions therefore reduces aggregate shareholder voice rather than merely

reallocating it to underlying clients.

8 Conclusion

This paper shows that institutional ownership is an imperfect proxy for realized voting power. We document that voting utilization is systematically below one for many institutions, so that reported ownership often exceeds the votes cast by the reporting institution. Voting utilization varies substantially across institutions and firms, and within institutions across portfolio companies, and these patterns are not explained by securities lending or by trading around record dates. Advisers' stated voting-authority arrangements strongly predict whether institutions appear in the Form N-PX voting record, while the variation in utilization among institutions that do vote is consistent with reported positions combining client accounts that delegate voting authority to the institution with accounts that retain it.

Incomplete voting utilization has economically meaningful implications at the firm level. Reported holdings of the largest institutional blockholders consistently overstate the votes they cast as reporting institutions, implying that effective voting power is more diffuse than ownership shares alone would suggest. Firms with higher institutional voting utilization exhibit greater support for management's say-on-pay proposals and fewer close votes. At the institution-firm level, institutions are more likely to support management where they vote a larger fraction of reported ownership. The client-participation analysis further shows that shares not voted by reporting institutions are not fully accounted for by client voting, so a meaningful share of the voting rights attached to institution-owned shares goes unexercised.

Taken together, these findings suggest that the governance consequences of institutional ownership depend not only on who owns shares, but also on who holds and uses the associated voting rights. Observed non-voting or partial voting by a reporting institution therefore cannot generally be interpreted as a discretionary voting choice, nor can an observed vote be interpreted as a direct expression of the adviser's preferences, without first identifying the allocation of voting authority. More broadly, our results highlight the importance of distinguishing economic ownership, voting authority, and realized control when assessing institutional influence in corporate governance.

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Figure 1: **Client-adviser-firm linkages and the allocation of voting authority**

The figure illustrates the paper's institutional mechanism. Clients differ in how voting authority is allocated. It may be retained by clients, delegated to advisers, supported by adviser recommendations, or vary across accounts and client types. These arrangements are disclosed in Form ADV Part 2A Item 17 and help explain why reported adviser ownership on Form 13F need not translate one-for-one into votes reported on Form N-PX. The adviser–company links result from portfolio positions associated with client portfolios. At the company level, different mixtures of advisers with different voting arrangements generate differences in voting utilization. Dashed arrows represent illustrative contractual or ownership-reporting links. The bottom braces indicate the regulatory disclosures used to measure each component.

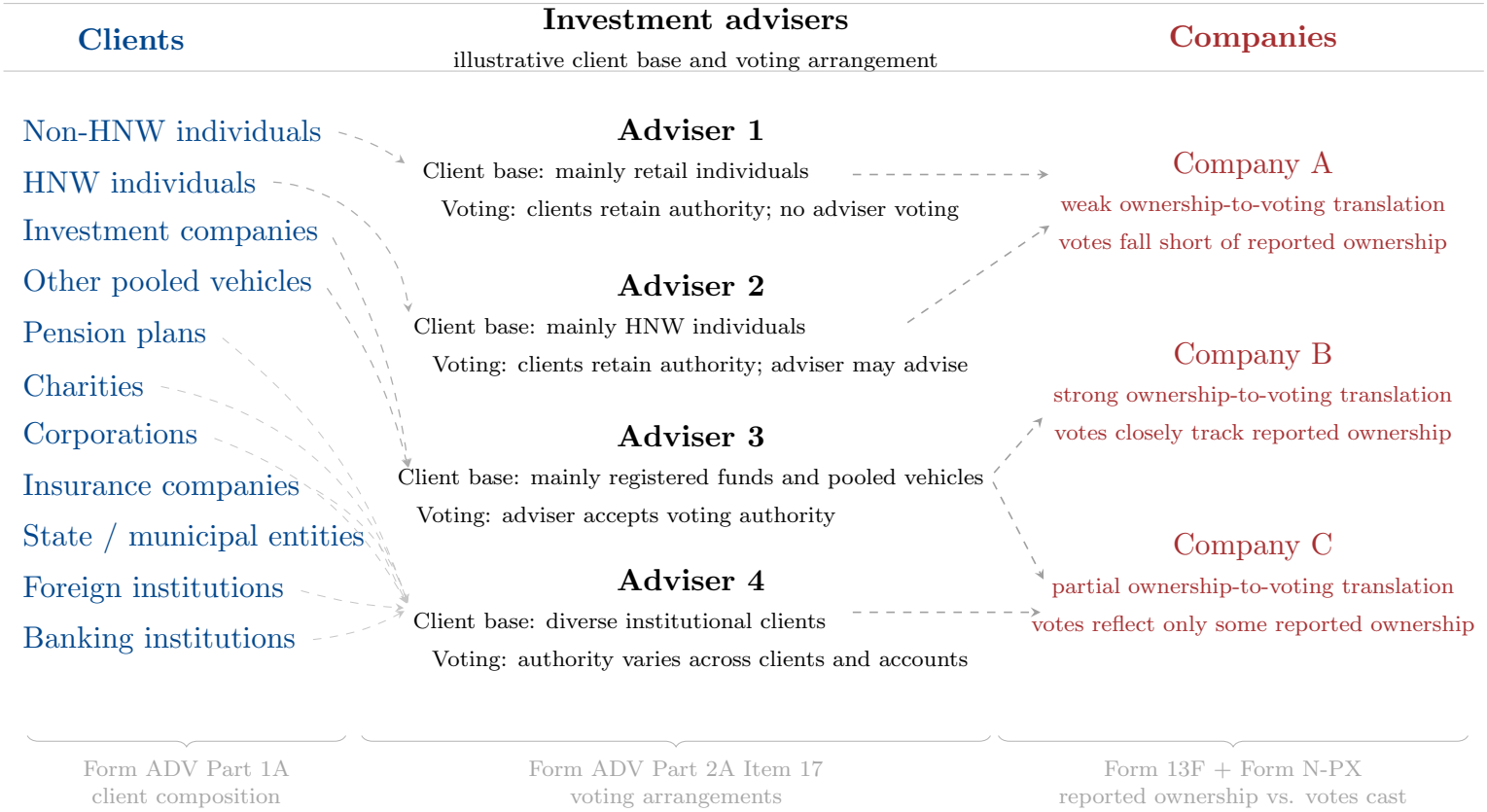


Figure 2: **Voting utilization: reported ownership vs. realized voting control**

This figure illustrates how reported ownership translates into realized control by contrasting 13F holdings with observed voting outcomes. The first (hatched) bar partitions total 13F ownership into sole+shared holdings (O^{ss}) and "none" holdings (O^{none}). The remaining bars show four stylized scenarios observed in the data where voting departs from the simple baseline. The first case, showing votes below O^{ss}, occurs when managers hold voting authority only over sole+shared holdings but do not cast all available votes because the reporting institution does not exercise voting authority over all of those shares. The second case also shows votes below O^{ss}, but is driven by situations where shares are out on loan and not recalled by the record date. The third scenario reflects cases in which shares reported with no voting authority are nonetheless partially voted. The final case, votes exceeding 13F holdings, captures instances in which observed votes surpass reported ownership, consistent with institutions that outsource investment discretion or with record-date borrowing.

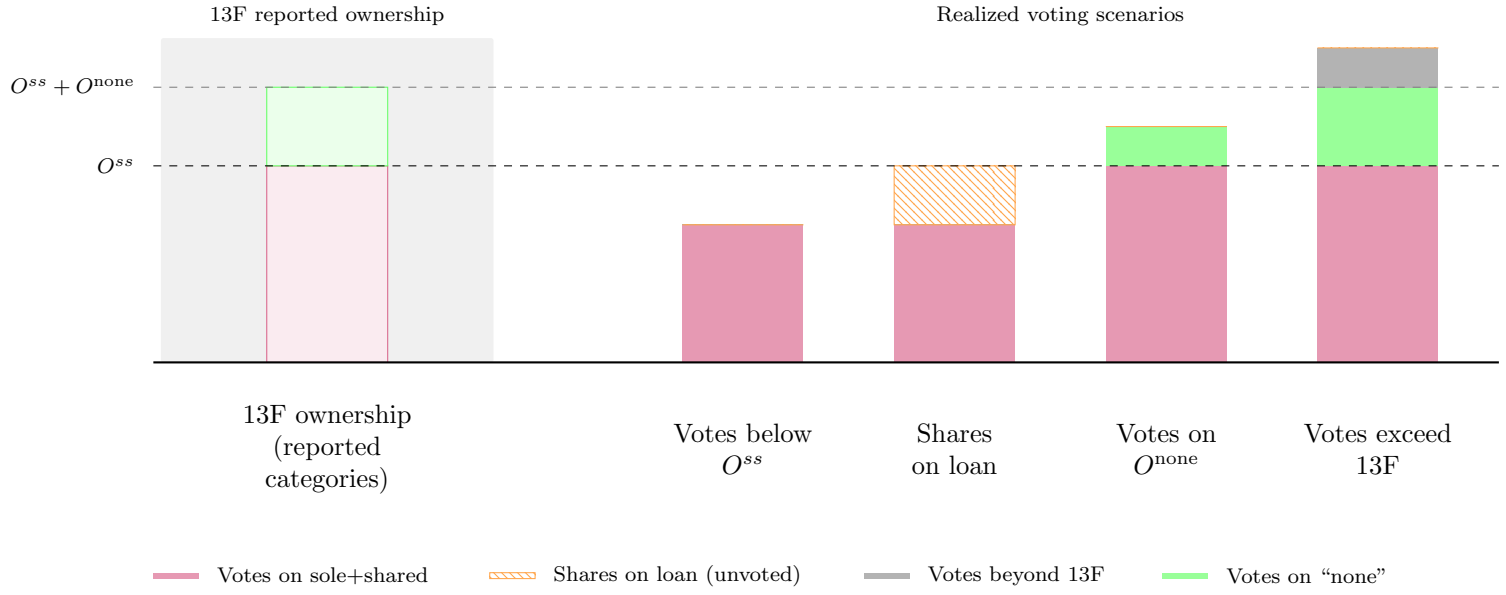


Figure 3: **Largest blockholders: Ownership and votes**

For each firm we identify the largest blockholders and report the aggregate ownership (solid lines) and aggregate votes actually cast (dashed lines) by those blockholders, expressed as a percent of shares outstanding and averaged across firms in the tercile.

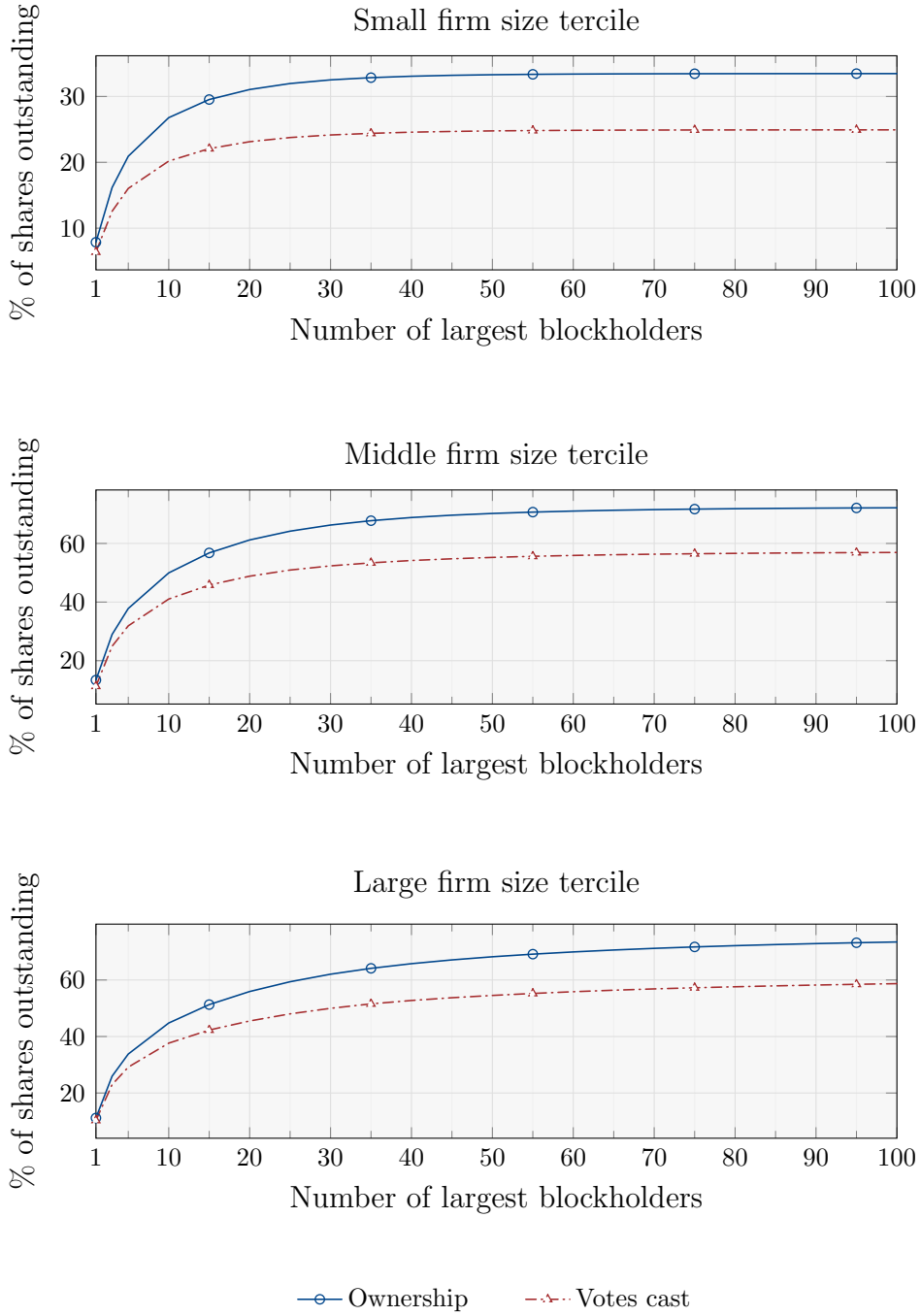


Table 1: **Integrated sample of 13F managers**

This table summarizes the integrated ownership–voting sample. Panel A reports the universe of Form 13F filers, broken down by Form 13F filing type (13F-HR, 13F-NT notice filings, and 13F combination reports) and by Form N-PX filing outcomes. We distinguish between managers that file N-PX voting reports with disclosed proxy votes, managers filing N-PX notice reports indicating that votes are reported by other managers, managers reporting no voting power, managers disclosing a stated policy of not voting, managers filing N-PX combination reports, and managers for which no corresponding Form N-PX filing can be located. We further split the managers with missing Form N-PX filings into those that are not obligated to file and those that appear obligated to file but do not report. Managers are not required to file Form N-PX during the first calendar year in which their initial Form 13F filing is due. The last row in the panel reports the integrated sample of Form 13F managers with usable holdings information after reconciling ownership and voting disclosures as described in Section 3.3 and Internet Appendix IA.S2. Percentages are relative to row totals. Panel B reports value-weighted category shares across Form N-PX categories. The row labeled "Share of 13F portfolio value" weights managers by the aggregate market value of their reported 13F securities from the June 2024 Form 13F cover page. The row labeled "Share of sample holdings" weights managers by the dollar value of the securities that enter our ownership-voting sample, measured at the quarter end immediately preceding each meeting's record date. Panel C provides information on the extent to which institutions' reported holdings translate into observed proxy voting. It reports institution-level distributions of two voting coverage measures: the share of reported holdings for which votes are cast and the share of reported holding value that is voted, with holding values measured using prices from the 13F ownership data. The reported percentiles are institution-level percentiles.

Panel A: Initial sample of 13F filers

	Total	N-PX vote	N-PX notice (of which)			N-PX combo	N-PX non-filers	
			Reported by other managers	No voting power	Policy of not voting		Not obligated	Appears obligated
All CIKs in sample	9,354 (100%)	3,186 (34.1%)	588 (6.3%)	911 (9.7%)	2,281 (24.4%)	151 (1.6%)	58 (0.6%)	2,179 (23.3%)
CIKs filing 13F-HR	7,121 (100%)	2,810 (39.5%)	62 (0.9%)	465 (6.5%)	2,126 (29.8%)	95 (1.3%)	41 (0.6%)	1,522 (21.4%)
CIKs filing 13F-NT (notice)	1,926 (100%)	267 (13.9%)	511 (26.5%)	416 (21.6%)	109 (5.7%)	14 (0.7%)	15 (0.8%)	594 (30.8%)
CIKs filing 13F-combo	307 (100%)	109 (35.5%)	15 (4.9%)	30 (9.8%)	46 (14.9%)	42 (13.7%)	2 (0.7%)	63 (20.5%)
All CIKs with holdings info.	7,293 (100%)	3,111 (42.7%)	–	495 (6.8%)	2,158 (29.6%)	–	42 (0.6%)	1,487 (20.4%)

Panel B: Economic coverage of Form N-PX disclosure categories

	Total	N-PX vote	N-PX notice (of which)			N-PX combo	N-PX non-filers	
			Reported by other managers	No voting power	Policy of not voting		Not obligated	Appears obligated
Share of 13F port. value	100%	88.9%	–	3.5%	3.3%	–	0.1%	4.2%
Share of sample holdings	100%	95.2%	–	1.3%	1.7%	–	0.0%	1.8%

Panel C: Institution-level distribution of voting coverage in the integrated sample

	Mean	P10	P25	P50	P75	P90	P95	N
Share of institution's reported holdings voted	0.758	0.160	0.667	0.900	0.985	1	1	3,111
Share of institution's reported holding value voted	0.709	0.059	0.416	0.774	0.952	1.016	1.163	3,111

Table 2: **Classification of proxy voting policies in Form ADV disclosures**

This table presents representative excerpts from Form ADV Part 2A Item 17 disclosures used to classify investment advisers' proxy voting policies. Each row corresponds to one of the four proxy voting policy categories described in Section 3.4. The excerpts illustrate the types of language in advisers' disclosures that map into each category.

	Voting policy category	Representative excerpt from Item 17 disclosure
(1)	A strict no-voting policy, whereby the adviser has a stated policy of not voting client securities	• "Dew Point will not vote, nor advise clients how to vote, proxies for securities held in client accounts." • "Client maintains all control over all voting rights related to their respective account."
(2)	A consultative non-voting policy where the adviser retains the "non-voting" default but reduces its clients' information acquisition costs by offering ad hoc advice	• "The Advisor will assist in answering questions relating to proxies. However, the Client retains the sole responsibility for proxy decisions and voting." • "Clients are expected to vote their own proxies. When assistance on voting proxies is requested, Quantum will provide recommendations to the client." • "Vintage will not vote client securities but is available to answer questions from clients regarding ballot."
(3)	A discretionary stewardship policy where the adviser accepts authority to vote client securities	• "We will determine how to vote proxies based on our reasonable judgment of the vote most likely to produce favorable financial results for you." • "Phoenix has authority to vote proxies on behalf of Clients that have delegated voting authority to the Firm." • "Blue Square accepts the authority to vote a client's securities (i.e., proxies) on their behalf."
(4)	A segmented voting policy where voting rights are allocated differently based on the legal structure of the capital pool	• "We may accept proxy voting authority for some accounts but not others." • "Old Peak offers Clients the option either to vote proxies themselves or to have Old Peak vote on their behalf." • "When directed to do so, the Advisor will vote such securities for the exclusive benefit, and in the best economic interest, of those clients and their beneficiaries." • "The firm's proxy voting policy is not uniform and splits based on account type."

Table 3: **Proxy voting policies of investment advisers filing Form ADV**

This table reports descriptive statistics for the full sample of investment advisers filing Form ADV in 2023. Advisers are classified into four proxy voting policy categories based on disclosures in Item 17 of Form ADV, as described in Section 3.4 and Internet Appendix IA.S4. We report the number of advisers, their share of the sample, and average and median assets under management (AUM). The two rows at the bottom of the table provide information on advisers who are exempt from filing Form ADV, Part 2 and advisers for which Item 17 could not be located. A filer's AUM, measured in billions of U.S. dollars, is obtained from Item 5F (Regulatory Assets Under Management) where we gather the adviser's reported total dollar amount of discretionary and non-discretionary regulatory assets.

	Voting policy	Number of advisers	Share of sample (%)	Average AUM ($B)	Median AUM ($B)
(1)	Adviser does not vote	4,032	24.8	5.539	0.246
(2)	Adviser does not vote by default but offers advice	4,254	26.1	0.820	0.220
(3)	Adviser accepts authority to vote	4,289	26.3	10.207	0.810
(4)	Voting rights segmented by capital pool	3,127	19.2	16.107	0.730
	Exempt from filing Part 2	539	3.3	20.095	0.208
	Item 17 not identified	38	0.2	0.564	0.167

Table 4: **Summary of voting utilization across institutions**

$\bar{\delta}_i$ is average voting utilization for institution i, and $\sigma_{\delta,i}$ is its within-portfolio dispersion. When shares voted are missing, we assign a value of zero if the manager votes on other portfolio companies and holds shares at the quarter ends immediately before and after the record date. The sample is restricted to institutions with at least ten voting-utilization observations. Panel A reports summary statistics across institutions. Panel B reports the cross-sectional mean, median, standard deviation, and number of institution-level average voting utilization, $\bar{\delta}_i$, by institution type. Asset owners include public pensions, corporate pensions, other pension funds, family offices, foundations, individuals, nonprofits, sovereign wealth funds, charities, and endowments. Investment advisers include asset managers, hedge funds, private equity firms, venture capital firms, and wealth managers. Financial intermediaries include banks, broker-dealers, insurance companies, trust banks, and trust companies. Trading firms include trading firms, market makers, and proprietary trading firms. Other institutions include trusts, closed-end funds, holding companies, and operating companies. Panel C reports the cross-sectional mean and median of institution-level average voting utilization, $\bar{\delta}_i$, by institution size group. Size groups are formed within the sample of institutions with voting data. Institution size is defined by portfolio value, and the groups are the Big Three, the remaining institutions among the Top 10, institutions ranked 11–25, institutions ranked 26–50, and institutions ranked 51–100. Winsorization is applied as follows. All δ_{ij} observations are pooled across filers, and the 99th percentile of this pooled distribution is computed. Any observations above this cutoff are set equal to the cutoff value. The lending ratio L_{ij}/O_{ij} is winsorized using the same procedure. Institution-level statistics are then computed from these winsorized observations.

Panel A: Institution-level voting utilization

Statistic	Mean	Median	SD	P10	P90	Institutions
$\bar{\delta}_i$	0.766	0.823	0.496	0.132	1.113	2,494
$\sigma_{\delta,i}$	0.522	0.395	0.451	0.143	1.068	2,494
Mean(L_{ij}/O_{ij})	0.009	0	0.042	0	0.011	2,494

Panel B: Institution-level average voting utilization by institution type

	Asset owners	Investment advisers	Financial intermediaries	Trading firms	Other
Mean($\bar{\delta}_i$)	1.047	0.751	0.821	0.297	0.638
Median($\bar{\delta}_i$)	0.965	0.811	0.932	0.414	0.508
SD($\bar{\delta}_i$)	0.893	0.472	0.498	0.259	0.564
Institutions	77	2,140	266	3	8

Panel C: Voting utilization by institution size among institutions with voting data

	Big Three	Top 10 excl. Big 3	Top 25 excl. Top 10	Top 50 excl. Top 25	Top 100 excl. Top 50
Mean($\bar{\delta}_i$)	0.730	0.624	0.661	0.650	0.972
Median($\bar{\delta}_i$)	0.739	0.717	0.776	0.875	0.935

Table 5: **Average marginal effects for adviser voting-policy choices**

This table reports average marginal effects from a multinomial logit model in which the dependent variable is the adviser's Form ADV voting-policy classification. Columns report marginal effects on the probability that an adviser is classified as strict no-voting, consultative non-voting, accepts voting authority, or segmented voting. Adviser characteristics are defined in Section 5.1 and Internet Appendix Section IA.S3. Advisers with zero or missing values for AUM or clients are excluded from the regression. Standard errors are reported in parentheses. The pseudo-R^2 from the underlying multinomial-logit model is 0.1957. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Voting policy outcome			
	Adviser does not vote	Adviser does not vote but offers advice	Adviser accepts authority to vote	Voting rights segmented by capital pool
Log(regulatory AUM)	-0.0278***	-0.0293***	0.0360***	0.0211***
	(0.0026)	(0.0025)	(0.0022)	(0.0025)
Percent non-discretionary	0.1648***	0.0554***	-0.1885***	-0.0318**
	(0.0126)	(0.0127)	(0.0153)	(0.0140)
Log(number of clients)	0.0014	0.0296***	-0.0410***	0.0101***
	(0.0025)	(0.0024)	(0.0019)	(0.0020)
Percent institutional clients	-0.0755***	-0.0227***	-0.0402***	0.1384***
	(0.0081)	(0.0081)	(0.0069)	(0.0084)
Percent pooled vehicles	-0.0089	-0.3030***	0.1670***	0.1448***
	(0.0114)	(0.0131)	(0.0086)	(0.0093)
Adviser financial industry exposure	0.0350***	-0.0025	0.0064	-0.0389***
	(0.0081)	(0.0070)	(0.0083)	(0.0077)
Observations	14,192	14,192	14,192	14,192

Table 6: **Contingency table of ADV voting policies and N-PX filing outcomes**

This table reports a contingency table relating investment advisers' stated proxy voting policies, derived from disclosures in Form ADV Item 17 as described in Section 3.4 and Internet Appendix IA.S4, to their realized proxy voting disclosure outcomes under Form N-PX. We exclude all advisers whose parent institutions own multiple investment advisory firms. Rows correspond to the four ADV voting policy categories. Columns classify advisers by Form N-PX filing outcome, including voting reports, notice reports (distinguishing whether votes are reported by other managers, whether the adviser reports no voting power, or whether the adviser discloses a policy of not voting), combination reports, and non-filers. Cell entries report the percentage of advisers within each ADV policy category falling into each Form N-PX outcome, such that percentages sum to 100% across each row before rounding. The final column reports the total number of advisers in each ADV policy category.

	N-PX vote (%)	N-PX notice of which:			N-PX combo (%)	N-PX non-filers (%)	Number of advisers
		Reported by other managers (%)	No voting power (%)	Policy of not voting (%)			
(1) Adviser does not vote	4.01	0.21	6.68	63.51	0.00	25.59	973
(2) Adviser does not vote by default but offers advice	1.11	0.12	4.19	75.07	0.06	19.45	1,717
(3) Adviser accepts authority to vote	75.73	0.86	5.74	2.18	2.44	13.06	1,516
(4) Voting rights segmented by capital pool	61.61	1.24	5.23	10.66	3.79	17.46	1,529

Table 7: **Firm-level voting utilization and executive pay proposal outcomes**

This table examines the relation between firm-level 13F voting utilization and voting outcomes on executive compensation proposals. Pass equals one if a proposal receives at least 70% of votes cast, and zero otherwise. Support rate is the fraction of For votes among total votes cast, including abstentions. Support margin is the difference between the number of For and Against votes, divided by total votes cast. Close vote equals one if the support rate is within 5% of the passing threshold, and zero otherwise. 13F utilization is defined as aggregate votes cast by 13F institutions divided by their aggregate 13F holdings, winsorized at the 99th percentile. Log(assets) is the logarithm of firm assets in millions of dollars. Profitability is return on assets, defined as EBITDA divided by assets and winsorized at the 0.5% level. 13F ownership equals aggregate 13F holdings divided by shares outstanding. When ownership data prior to the record date are missing but voting data are available, missing ownership is replaced with the number of voting shares plus shares on loan. Robust standard errors are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variables:			
	Pass	Support rate	Support margin	Close vote
	(1)	(2)	(3)	(4)
13F utilization	0.109***	0.076***	0.148***	-0.045**
	(0.031)	(0.015)	(0.029)	(0.019)
Log(assets)	-0.002	-0.006***	-0.011***	0.002
	(0.003)	(0.001)	(0.003)	(0.002)
Profitability	0.055***	0.047***	0.091***	-0.040**
	(0.021)	(0.008)	(0.017)	(0.017)
13F ownership	-0.010	0.005	0.006	0.018
	(0.023)	(0.011)	(0.021)	(0.015)
Quarter FE	Y	Y	Y	Y
Observations	2,755	2,755	2,755	2,755
R^2	0.017	0.042	0.039	0.013

Table 8: **Institution–company variation in voting utilization**

This table reports OLS regressions of institution-company voting utilization, δ_{ij}, on proposal characteristics, position importance, and firm characteristics. The dependent variable, δ_{ij}, is defined as shares voted by institution i at firm j's meeting divided by institution i's reported ownership in firm j. This ratio is winsorized at the 99th percentile. The golden parachute indicator equals one if the meeting includes an advisory vote to approve compensation arrangements in connection with a merger or acquisition, and zero otherwise. The proxy contest indicator equals one for a proxy contest for board representation, and zero otherwise. The close vote indicator equals one if the support rate is within 5% of the passing threshold, and zero otherwise. Portfolio weight is the value of the stock held divided by the institution's total portfolio value. Log(assets) is the logarithm of firm assets in millions of dollars. Profitability is return on assets, defined as EBITDA divided by assets and winsorized at the 0.5% level. 13F ownership equals aggregate 13F holdings divided by shares outstanding. Standard errors, reported in parentheses, are two-way clustered by institution and firm. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable: δ_{ij}				
	(1)	(2)	(3)	(4)	(5)
Portfolio weight	-1.462***	-1.230***	-1.230***	-1.229***	-1.232***
	(0.176)	(0.169)	(0.169)	(0.169)	(0.169)
Golden parachute indicator		0.024			0.026
		(0.023)			(0.024)
Proxy contest indicator			-0.035**		-0.035**
			(0.017)		(0.017)
Close vote indicator				-0.016	-0.018
				(0.013)	(0.013)
Log(assets)		0.020***	0.020***	0.020***	0.020***
		(0.004)	(0.004)	(0.004)	(0.004)
Profitability		0.077***	0.076***	0.075***	0.076***
		(0.025)	(0.025)	(0.025)	(0.025)
13F ownership		0.064**	0.064**	0.065**	0.064**
		(0.029)	(0.029)	(0.029)	(0.029)
Firm-proposal FE	Y	N	N	N	N
13F institution FE	Y	Y	Y	Y	Y
Observations	496,590	496,600	496,600	496,534	496,534
R^2	0.298	0.291	0.291	0.291	0.291

Table 9: **Voting utilization and support for management**

This table presents evidence linking institutions' voting utilization to their support for executive compensation proposals, including say-on-pay and golden parachute votes. The dependent variable, $Support_{ijp}$, equals one when all shares voted by institution i on proposal p at firm j support management, zero when none support management, and takes a value between zero and one when the institution splits its votes. Voting utilization, δ_{ij}, is defined as the number of shares voted by institution i at firm j's meeting divided by institution i's reported ownership in firm j. This ratio is winsorized at the 99th percentile. Portfolio weight is the value of the stock held divided by the institution's total portfolio value. Columns (3) and (6) include indicator variables for institution type. Asset owners include public pensions, corporate pensions, other pension funds, family offices, foundations, individuals, nonprofits, sovereign wealth funds, charities, and endowments. Investment advisers include asset managers, hedge funds, private equity firms, venture capital firms, and wealth managers. Financial intermediaries include banks, broker-dealers, insurance companies, trust banks, and trust companies. Trading firms include trading firms, market makers, and proprietary trading firms. Other institutions include trusts, closed-end funds, holding companies, and operating companies. The excluded category is investment advisers. Standard errors, reported in parentheses, are two-way clustered by institution and firm. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable: $Support_{ijp}$					
	Say-on-Pay			Golden parachute		
	(1)	(2)	(3)	(4)	(5)	(6)
δ_{ij} (voting utilization)	0.040***	0.038***	0.042***	0.045***	0.040***	0.060***
	(0.007)	(0.007)	(0.015)	(0.010)	(0.010)	(0.016)
Portfolio weight		0.303***	0.305***		1.361**	1.272***
		(0.063)	(0.092)		(0.585)	(0.330)
Asset owners			-0.079**			-0.136***
			(0.035)			(0.049)
Financial intermediaries			-0.008			0.021
			(0.029)			(0.036)
Trading firms			0.209***			0.330***
			(0.017)			(0.026)
Other institutions			-0.041			0.398**
			(0.135)			(0.185)
Firm-proposal FE	Y	Y	Y	Y	Y	Y
Institution FE	Y	Y	N	Y	Y	N
Observations	429,684	402,921	403,092	7,875	7,000	7,424
R^2	0.549	0.549	0.195	0.647	0.660	0.367

Table 10: **Form ADV characteristics and support for management**

This table reports OLS regressions linking institutions' voting utilization to their support for executive compensation proposals. The sample is restricted to institutions that can be matched to Form ADV filings. The dependent variable, $Support_{ijp}$, equals one when all shares voted by institution i on proposal p at firm j support management, zero when none support management, and takes a value between zero and one when the institution splits its votes. Columns (1)–(3) report results for say-on-pay proposals, and columns (4)–(6) report results for golden parachute proposals. Voting utilization, δ_{ij}, is defined as shares voted by institution i at firm j's meeting divided by institution i's reported ownership in firm j. This ratio is winsorized at the 99th percentile. Portfolio weight is the value of the stock held divided by the institution's total portfolio value. Columns (1), (2), (4), and (5) include both firm-proposal and institution fixed effects. Columns (3) and (6) replace institution fixed effects with Form ADV adviser characteristics. Form ADV characteristics include the logarithm of regulatory assets under management, the logarithm of the number of clients, the share of AUM managed on a non-discretionary basis, an indicator for financial-industry exposure, the share of AUM attributable to pooled vehicles, and the share of AUM attributable to institutional clients. Adviser characteristics are defined in Internet Appendix Section IA.S3 and described in Section 5.1. Standard errors, reported in parentheses, are two-way clustered by institution and firm. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable: $Support_{ijp}$					
	Say-on-Pay			Golden parachute		
	(1)	(2)	(3)	(4)	(5)	(6)
δ_{ij} (voting utilization)	0.020***	0.017***	-0.005	0.030***	0.025**	0.019
	(0.004)	(0.004)	(0.012)	(0.010)	(0.010)	(0.015)
Portfolio weight		0.267***	0.346***		1.105	1.570***
		(0.077)	(0.129)		(0.726)	(0.352)
Log(regulatory AUM)			-0.002			-0.012
			(0.009)			(0.010)
Log(number of clients)			0.001			0.007
			(0.007)			(0.008)
Percent non-discretionary			0.117**			0.137*
			(0.052)			(0.080)
Adviser financial industry exposure			-0.024			-0.114***
			(0.020)			(0.038)
Percent pooled vehicles			-0.007			0.050
			(0.058)			(0.071)
Percent institutional clients			-0.126***			-0.200***
			(0.041)			(0.064)
Firm-proposal FE	Y	Y	Y	Y	Y	Y
Institution FE	Y	Y	N	Y	Y	N
Observations	333,530	308,523	308,625	6,257	5,530	5,877
R^2	0.544	0.543	0.228	0.656	0.670	0.415

Table 11: **Client participation in voting**

This table examines whether underlying clients vote shares that their reporting institutions leave unvoted. The dependent variable is residual turnout, defined as aggregate turnout net of votes cast by reporting 13F institutions, scaled by shares outstanding. Unvoted institutional ownership is the aggregate unvoted position of reporting institutions other than asset owners, scaled by shares outstanding. Non-13F ownership is the fraction of shares outstanding held outside reporting 13F institutions. The coefficient on unvoted institutional ownership is the client participation rate and the coefficient on non-13F ownership is the participation rate of non-13F shareholders. Column (1) estimates the decomposition without an intercept while column (2) adds an intercept. Column (3) re-estimates column (1) on meetings whose record date falls within ten days of the quarter end at which ownership is measured. Column (4) allows both participation rates to differ across firm-size terciles by interacting each regressor with tercile indicators. Column (5) adds a full set of tercile indicators to column (4). Size terciles are formed on firm market capitalization. Firms with missing market-capitalization data are excluded from columns (4) and (5). R^2 is reported only for specifications whose regressors span a constant (columns (2) and (5)). Heteroskedasticity-robust standard errors are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)
Constant		0.048^{***}			
		(0.012)			
Unvoted institutional ownership	0.502^{***}	0.368^{***}	0.423^{***}		
	(0.014)	(0.044)	(0.038)		
× small-cap tercile				0.418^{***}	0.381^{***}
				(0.034)	(0.073)
× mid-cap tercile				0.436^{***}	0.439^{***}
				(0.025)	(0.075)
× large-cap tercile				0.438^{***}	0.652^{***}
				(0.019)	(0.067)
Non-13F ownership	0.574^{***}	0.528^{***}	0.604^{***}		
	(0.011)	(0.014)	(0.027)		
× small-cap tercile				0.507^{***}	0.487^{***}
				(0.014)	(0.030)
× mid-cap tercile				0.722^{***}	0.723^{***}
				(0.021)	(0.030)
× large-cap tercile				0.815^{***}	0.888^{***}
				(0.017)	(0.025)
Small-cap indicator					0.019
					(0.027)
Mid-cap indicator					−0.001
					(0.020)
Large-cap indicator					-0.067^{***}
					(0.018)
Observations	2,561	2,561	398	2,554	2,554
R^2		0.476			0.566

Internet Appendix

Institutional Ownership Overstates Voting Power: The Allocation of Voting Authority

Alon Brav Tao Li

August 2026

This Internet Appendix contains supplemental tables and additional analyses for the paper.

Supplementary Details

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Supplementary Details

IA.S1 Regulatory background on proxy voting authority

This appendix provides additional regulatory background on the SEC guidance discussed in Section 2.3 of the paper.

Registered investment advisers are regulated under the Investment Advisers Act of 1940, which establishes federal fiduciary standards. Rule 206(4)-6 under the Advisers Act addresses an investment adviser's exercise of proxy voting authority. In adopting the rule, the SEC summarized it as follows: "The new rule requires an investment adviser that exercises voting authority over client proxies to adopt policies and procedures reasonably designed to ensure that the adviser votes proxies in the best interests of clients, to disclose to clients information about those policies and procedures, and to disclose to clients how they may obtain information on how the adviser has voted their proxies."[1]

In its 2019 interpretation, the SEC emphasized that the adviser's fiduciary duty is shaped by the adviser-client relationship. The SEC states that "the fiduciary duty follows the contours of the relationship between the adviser and its client, and the adviser and its client may shape that relationship by agreement." The same interpretation notes that advisers "provide a wide range of services" and "serve a large variety of clients."[2]

In separate 2019 guidance on proxy voting responsibilities, the SEC applied this principle to proxy voting. The Commission states that "the specific obligations that flow from the investment adviser's fiduciary duty depend upon the scope of voting authority assumed by the adviser." The guidance further states that "an investment adviser is not required to accept the authority to vote client securities." When an adviser does accept such authority, the adviser and client may define the scope of the arrangement, including the matters for which the adviser will exercise voting authority. Specifically, the adviser "may agree with its client [...] on the scope of voting arrangements, including the types of matters for which it will exercise proxy voting authority."[3]

The SEC guidance also recognizes that advisers may serve clients with different investment objectives, legal structures, and contractual arrangements. It states that "Differences in agreements between investment advisers and their clients as to the scope of the advisory relationship may result in a variety of arrangements for voting client securities. While a client and its investment adviser may agree that the client will delegate all of its proxy voting authority to its investment adviser, the client and the investment adviser may instead agree (in the manner described above) to other proxy voting arrangements in which the investment adviser would not assume all of the proxy voting authority, or in which the investment adviser would only assume the authority to vote on behalf of the client in limited circumstances or not at all."

The guidance further notes that advisers should consider "whether voting all of its clients'

[1] SEC, Investment Advisers Act Release No. IA-2106, January 31, 2003.
[2] SEC, Investment Advisers Act Release No. IA-5248, July 12, 2019.
[3] SEC, Investment Advisers Act Release No. IA-5325; Investment Company Act Release No. IC-33605, September 10, 2019.

shares in accordance with a uniform voting policy would be in the best interest of each of its clients." In particular, "where an investment adviser undertakes proxy voting responsibilities on behalf of multiple funds, pooled investment vehicles, or other clients, it should consider whether it should have different voting policies for some or all of these different funds, vehicles, or other clients, depending on the investment strategy and objectives of each."[4]

Together, these statements provide the regulatory basis for distinguishing among advisers that do not accept voting authority, advisers that accept voting authority, and advisers whose voting arrangements differ across funds, accounts, or client types.

[4]SEC, Investment Advisers Act Release No. IA-5325; Investment Company Act Release No. IC-33605, September 10, 2019.

IA.S2 Data collection from Forms N-PX and 13F filings

For each Form 13F filer in fiscal year 2024, we attempt to identify the corresponding Form N-PX filing that reports its proxy voting. Because institutional investors may file different types of ownership and voting reports, Form 13F filers can be classified into a set of distinct ownership–voting categories based on the combination of their Form 13F and Form N-PX filing types.

Table 1, Panel A, in the paper summarizes these classifications for the universe of 13F filers. The table reports the number of filers classified jointly by their type of Form 13F filing (13F-HR, 13F-NT, or 13F combination report) and their type of Form N-PX filing. On the voting side, we distinguish between N-PX filings that report votes directly, N-PX notice filings where votes are reported by other managers, N-PX notice filings indicating no voting power, N-PX notice filings indicating a stated policy of not voting, N-PX combination filings, and cases in which no corresponding Form N-PX filing can be located. We use these classifications to guide the construction of the integrated ownership and voting dataset described below.

IA.S2.1 Form 13F-HR filers

There are 7,121 managers filing Form 13F-HR during fiscal year 2024. We group them according to how they file their Form N-PX as summarized in Table 1, Panel A in the paper.

- **Managers filing Form N-PX reports containing proxy votes.** Among the 7,121 managers filing Form 13F-HR, we identify 2,810 Form N-PX filings containing proxy votes. Institutional managers may also request confidential treatment for information reported on Form N-PX. The Form N-PX instructions state that an institutional manager may omit one or more proxy votes from the public filing while seeking confidential treatment from the SEC, with requests handled under the same standards used for confidential treatment on Form 13F. If confidential treatment is denied or expires, the manager must file an amendment adding the omitted proxy-vote information. In our sample, we identify 28 such confidential N-PX filings. Most such filers omit only a subset of their votes, whereas Norges Bank Investment Management omits all its votes. We therefore classify Norges Bank as having no publicly usable Form N-PX voting data.

  An example of a 13F-HR filer filing Form N-PX containing proxy votes is Wellington Management Group LLP, whose N-PX cover page makes clear that the filing reports proxy votes cast by nine included institutional managers, all of which are subsidiaries, including Wellington Management Company LLP and Wellington Management International Ltd. Wellington Management Company LLP is the primary subsidiary of the Wellington Management Group and serves as an investment adviser or subadviser to various mutual funds and ETFs. Another example is Pershing Square Capital Management, L.P., whose N-PX cover page does not list any other included managers.

- **Managers filing Form N-PX notice reports whose votes are reported by other reporting persons.** We identify 2,653 13F-HR filers that submit an *Institutional Manager Notice Report*, of which 62 state that "all proxy votes for which the

manager exercised voting power are reported by other reporting persons." For these cases, we extract the names of the other reporting persons from the N-PX cover pages and identify their associated CIKs using EDGAR. Most of these entities manage multiple mutual funds or ETFs. We manually review each fund's certified shareholder report (Form N-CSR) to determine whether the fund is advised or sub-advised by the filer. We then assign to the 13F filer the N-PX votes cast by funds it advises or sub-advises. Specifically, we manually collect the funds' series IDs and download their corresponding N-PX filings.

One example involves Infrastructure Capital Advisors, LLC, which lists two entities as the "other persons reporting for this manager:" Series Portfolio Trust and ETFis Series Trust I. Their N-CSR filings indicate that Infrastructure Capital Advisors sub-advises InfraCap Equity Income Fund ETF and InfraCap Small Cap Income ETF for Series Portfolio Trust. It also sub-advises InfraCap MLP ETF, InfraCap REIT Preferred ETF, and Virtus InfraCap U.S. Preferred Stock ETF for ETFis Series Trust I. We assign the votes cast by these five funds to Infrastructure Capital Advisors.

- **Managers filing Form N-PX notice reports who do not exercise voting power.** Among the 2,653 13F-HR filers submitting an *Institutional Manager Notice Report*, 465 explain that "the reporting person did not exercise voting power for any reportable voting matter." It is important to note that when a 13F filer does not report proxy votes, this only indicates that the filer itself does not exercise proxy voting authority at the manager-entity level. It does not imply that no entity within the corporate group votes proxies. Accordingly, for filers that report no voting power, we examine the Form 13F cover page and extract all "other included managers" who are subsidiaries of the filer. These subsidiaries typically submit Form 13F-NT filings because they are not required to report holdings independently. We aggregate the N-PX votes reported by these subsidiaries and assign them to the filer. We apply these search procedures and "recover" votes for 60 of these managers.

  For example, Stifel Financial Corp.'s 13F cover page lists seven subsidiaries under the "other included managers," all of which file Form 13F-NT reports. Among these subsidiaries, six, including Stifel, Nicolaus & Company, Inc., report valid proxy votes, which we aggregate and attribute to Stifel Financial Corp.

- **Managers filing Form N-PX notice reports who state they do not vote.** We identify 2,126 managers filing an *Institutional Manager Notice Report* that state that "the reporting person has a clearly disclosed policy of not voting and did not vote on any proxy voting matters." Similar to our treatment of managers who do not exercise voting power, we examine all these managers and are able to recover subsidiary votes for only 22 of these managers. One example is National Bank of Canada, which lists six subsidiaries on its Form 13F cover page. However, only two, National Bank Financial Inc. and National Bank Trust Inc., report valid proxy votes.

- **Managers filing N-PX combination reports.** We find that 95 of the 13F-HR filers submitted an *Institutional Manager Combination Report* ("Check here if a portion of the proxy votes for this reporting manager are reported in this report and a portion are

reported by other reporting person(s).”). A major difference between these filers and the 62 filers whose votes are reported by other reporting persons is that these “combo” filers also report valid N-PX votes in addition to the votes cast by “Other Persons Reporting for this Manager.” Accordingly, we follow the steps we took for managers filing a notice report indicating votes are reported by other reporting persons and identify the fund(s) offered by the other reporting persons that are advised or sub-advised by the filer and add their votes to the filer’s own reported votes.

We do, however, exclude cases in which the other reporting person is the parent company of the filer or an unaffiliated 13F filer. For example, Point72 Italy, S.r.l. lists Point72 Asset Management, L.P., its parent company, as the other reporting person. We exclude such cases since the other reporting person likely votes shares beyond those held by the 13F filer.

Internet Appendix Table IA.11 provides a representative case involving Kayne Anderson Rudnick Investment Management LLC.

- **Managers who do not file an N-PX.** Of the 1,563 Form 13F-HR filers that did not file a Form N-PX for the July 1, 2023–June 30, 2024 reporting period, 41 were not required to do so. Rule 14Ad-1 provides that institutional managers are not required to file Form N-PX during the first calendar year in which their initial Form 13F filing is due. Accordingly, filers whose first Form 13F filing was due in calendar year 2024 (e.g., February 15, 2024, reflecting that they exceeded the reporting threshold in 2023) were not required to file Form N-PX for the July 1, 2023–June 30, 2024 period. The remaining 1,522 filers appear to have been obligated to file Form N-PX. We extract all entities on the List of “Other Included Managers” for each of these filers and identify 168 CIKs with valid subsidiaries.

  A representative case is State Street Corp. (CIK#: 0000093751). We first retrieve its 13F-HR holding reports (SEC Link). We rely on the “list of other included managers” listed in State Street’s 13F-HR for the quarters from 2023-Q1 through 2024-Q2 to identify subsidiaries and corresponding CIKs. State Street did not file an N-PX Report for 2024.

  Most of State Street’s subsidiaries (e.g., SSGA Funds Management, State Street Global Advisors Ltd., etc.) filed institutional manager voting reports. One entity, State Street Saudi Arabia Financial Solutions Company, filed an institutional manager notice report, with no votes exercised. See Table IA.12 in the Internet Appendix. None of State Street’s subsidiaries filed combination reports. The final sample for State Street is therefore constructed from the other included managers in the 13F-HR that filed N-PX institutional manager voting reports.

  Other large 13F filers, including Berkshire Hathaway Inc. and Raymond James Financial Services Advisors, Inc., do not list any subsidiaries with valid proxy votes. We review all such cases and identify 11 managers that advise mutual funds and/or ETFs, including ProShare Advisors LLC, Gabelli Funds LLC, and ProFund Advisors LLC. We then aggregate the votes cast by their constituent funds and assign them to the respective managers.

IA.S2.2 Form 13F-NT filers

The Form 13F-NT (13F Notice) is used by institutional investment managers with over $100 million in assets to indicate that their required holdings are being reported on another manager's Form 13F-HR filing. The other manager is often the filer's parent, and the filer typically reports no holdings.

Following the same steps used to classify 13F-HR filers, we classify 13F-NT filers into the following categories: managers filing N-PX reports containing proxy votes, managers whose votes are reported by other reporting persons, managers who do not exercise voting power, managers with a policy of not voting, managers filing N-PX combination reports, and managers who do not file an N-PX. The frequency of each filing type is reported in Panel A of Table 1.

For 13F-NT filers that submit an N-PX notice, an N-PX combination report, or no N-PX filing, we follow the same procedures described in the previous subsection to recover their proxy votes. We note that in our final dataset, 13F-NT filers who report proxy votes have been "absorbed" into 13F-HR filers.

As an example, consider again Stifel Financial Corp. On its 13F cover page, Stifel Financial Corp. reports seven subsidiaries under "Other Included Managers," all of which submit Form 13F-NT filings. All but Stifel Independent Advisors, LLC, submit regular N-PX filings. Stifel Independent Advisors, however, submitted an institutional manager notice report stating that it "did not exercise voting power for any reportable voting matter." We aggregate the votes cast by the other six entities and attribute them to Stifel Financial Corp.

IA.S2.3 Form 13F combination filers

An institutional investment manager files a 13F combination report "if a portion of the holdings for this reporting manager are reported in this report and a portion are reported by other reporting manager(s)." Following the same steps used to classify 13F-HR or 13F-NT filers, we classify combo filers into six groups as listed in the previous two subsections.

For 13F combo filers that submit an N-PX notice, an N-PX combination report, or no N-PX filing, we follow the same procedures described in the previous subsections to recover their proxy votes. To construct our final dataset, we combine, for each 13F combo filer, its holdings and proxy votes at the meeting level with those of other reporting managers when the latter are subsidiaries or affiliated entities.

We next provide two examples of how we obtain all proxy votes for managers who file 13F combination reports.

The first example is Vanguard Group Inc. (CIK# 0000102909). We retrieve the 13F-HR combination reports (SEC Link). These reports include the "list of other managers reporting for this manager," pointing to Vanguard Personalized Indexing Management, LLC (CIK# 0001767306). We therefore gather the ownership information as provided by Vanguard Group Inc. and Vanguard Personalized Indexing Management, LLC.

Vanguard Group Inc. filed an N-PX institutional manager notice report (see SEC Link).

The N-PX filing points to its reporting entities via the "other persons reporting for this manager" section. These include both domestic subsidiaries (e.g., Vanguard Fiduciary Trust Co., CIK# 0000933478) and many Vanguard mutual funds and ETFs identified by their Series IDs. See Internet Appendix Table IA.13.

The final voting sample for Vanguard is therefore constructed from (i) the N-PX reports filed by the "other persons reporting" entities listed in Vanguard Group Inc.'s notice report (Table IA.13 in the Internet Appendix) and (ii) the N-PX institutional manager voting report filed by Vanguard Personalized Indexing Management, LLC.

The second example of a 13F combo filer is BlackRock Inc. (CIK# 0001364742). We retrieve its 13F combination reports (SEC Link). Its N-PX filing was in the form of an institutional manager notice report (SEC Link). In this notice report, the manager stated that "The reporting person did not exercise voting power for any reportable matter."

From the 13F combination report, we retrieve the "list of other included managers" for the quarters 2023-Q1 through 2024-Q2 to obtain the subsidiaries and their CIKs. We check each subsidiary's N-PX cover page to determine the report type. A majority of subsidiaries file an institutional manager notice report, indicating that all voting is reported by BlackRock Financial Management, Inc. See Table IA.14 in the Internet Appendix, which provides the list of subsidiaries for BlackRock, Inc. with their CIKs and report type.

Two entities, BlackRock Advisors LLC (CIK# 0001086364) and BlackRock Fund Advisors (CIK# 0001006249), filed a combination report, indicating that part of their votes were reported by themselves and part by other reporting persons. We gather these "other persons reporting for this manager," all registered funds, from these two combination reports. See Table IA.15 in the Internet Appendix.

Finally, we also gather from the 13F filings the "list of other managers reporting for this manager." These managers are listed in Table IA.16 in the Internet Appendix. We find that most managers did not file 13F reports during our sample period. A key exception is Nationwide Fund Advisors (CIK: 0001097218), which also filed a 13F combination report (see SEC Link). Nationwide Fund Advisors is a large advisory firm and its own "list of other managers" of more than 30 managers makes it infeasible to precisely attribute which holdings are reported on behalf of BlackRock Inc. rather than these other managers. In other words, Nationwide Fund Advisors is not a subsidiary or affiliate of BlackRock Inc. We therefore exclude holdings and votes reported by Nationwide Fund Advisors.

The final sample for BlackRock is therefore constructed from (i) other managers that are included in the 13F-HR that file N-PX institutional manager voting reports; and (ii) registered funds listed in the N-PX combination reports of those managers.

IA.S3 Data collection from Form ADV filings

This section describes the collection and processing of data from Form ADV filings, which we utilize to describe advisers' stated proxy voting policies and to obtain adviser-level characteristics used in the analysis.

IA.S3.1 Overview of Form ADV disclosures

Under Section 203A of the Investment Advisers Act and Rule 203A-1, advisers generally register with the SEC if they have at least $110 million in regulatory assets under management. Advisers below this threshold typically register with state securities authorities, subject to certain exceptions, such as advisers to registered investment companies or multi-state advisers. Advisers only to private funds below specified asset thresholds may qualify as exempt reporting advisers and file a limited Form ADV.[5]

Form ADV consists of Parts 1A, 1B, 2A, 2B, and 3, which we describe below. Advisers are required to amend their Form ADV filings each year by filing an annual updating amendment within 90 days after the end of the fiscal year.[6]

Form ADV Part 1A includes questions regarding the form of organization (e.g., corporation, limited liability company), information about employees, clients, compensation arrangements, regulatory assets under management, type of advisory services, the advisory firm's other business activities, marketing, financial industry affiliations, questions regarding potential conflicts of interest, the persons who own and are in control, and information about disciplinary history and the disciplinary history of all advisory affiliates. All advisers registering with the SEC or any of the state securities authorities must complete Part 1A. Exempt reporting advisers, namely those that are not also registering with any state securities authority, must complete only a subset of the items in Part 1A. The second part, Part 1B, asks additional questions required by state securities authorities.

The third part, Part 2A, requires advisers to create narrative brochures containing information about the advisory firm which are meant to be distributed to clients. The requirements in this part apply to all investment advisers registered with or applying for registration with the SEC, but do not apply to exempt reporting advisers. It includes information on fees and compensation, type of clients, methods of analysis and investment strategies, legal or disciplinary events, other financial industry activities and affiliations, code of ethics, brokerage practices, review of accounts, custody, whether the adviser accepts discretionary authority to manage securities accounts on behalf of clients, and voting client securities.

The fourth part, Part 2B, requires advisers to create brochure supplements containing information about certain supervised persons. Finally, the fifth part, Part 3, requires advisers to create a relationship summary containing information for retail investors. The requirements in Part 3 apply to all investment advisers registered or applying for registration with the SEC, but do not apply to exempt reporting advisers.

[5] Chapman and Cutler LLP, Investment Adviser Registration, 2024, available here.
[6] www.sec.gov/files/formadv.pdf.

A small fraction of advisers appear in the data without a corresponding Form ADV Part 2 brochure. This occurs because certain advisers are exempt from the Part 2 brochure requirement under SEC rules. First, advisers that qualify as exempt reporting advisers, including advisers to venture capital funds or to private funds, are required to file a limited Form ADV but are not subject to the full Part 2 brochure requirements. See the SEC guidance on filing Form ADV for exempt reporting advisers; for venture capital and private-fund advisers, see Rule 275.204-4, Reporting by exempt reporting advisers. Second, SEC-registered advisers whose only clients are registered investment companies or business development companies are exempt from the brochure delivery requirement. As a result, advisers such as fund complexes that advise only their own registered funds may appear in the data without filing a Part 2 brochure. See Rule 204-3(c)(1)(i).

IA.S3.2 Accessing and extracting Form ADV data

Form ADV filings are publicly available through the SEC's Investment Adviser Registration Depository (IARD) system at adviserinfo.sec.gov/adv. We download all available Form ADV filings for registered investment advisers and exempt reporting advisers during the period 2022-2025 and then narrow down to filings made in 2023.

We obtain adviser characteristics from Part 1A of Form ADV since it provides standardized, quantitative information that is consistently reported across advisers and over time. We construct the following variables:

Regulatory assets under management. Obtained from Item 5.F.(2)(c), which reports an adviser's total regulatory assets under management (AUM), including both discretionary (Item 5.F.(2)(a)) and non-discretionary assets (Item 5.F.(2)(b)), in U.S. dollars.

Percent non-discretionary. Obtained from Item 5.F and calculated as non-discretionary AUM divided by total AUM, using Item 5.F.(2)(b) divided by Item 5.F.(2)(c).

Number of employees. Obtained from Item 5.A, which reports the total number of individuals employed by the adviser.

Number of clients. Obtained from Item 5.D.(1) and 5.D.(2). The variable is calculated by summing the number of clients across all client categories (a) through (n). For categories where the specific number of clients is not provided in Item 5.D.(1) but the adviser indicates having such clients in Item 5.D.(2), we assign a value of 2.5 to "Yes" responses and 0 to "No" responses.

Institutional clients and pooled investment vehicles indicator variables. Investment advisers are required to report in Item 5.D the types of clients they serve and the approximate number of clients and regulatory assets under management attributable to each client type. Item 5.D distinguishes among a broad set of client categories. These include individuals and high net worth individuals, where the category "individuals" encompasses trusts, estates, and retirement accounts of individuals and their family members. Institutional client categories include banking or thrift institutions, pension and profit-sharing plans, charitable organizations, state or municipal government entities, insurance companies, other investment advisers, and corporations or other businesses not listed separately.

Advisers are also required to separately report clients that are registered investment companies, business development companies, private investment funds, and other pooled investment vehicles. The reporting is designed to distinguish between advisory relationships with end investors, such as individuals or institutions, and advisory relationships with pooled investment vehicles.

The institutional clients indicator equals one if the adviser reports any clients in one or more institutional end-investor categories and equals zero otherwise. The pooled investment vehicles indicator equals one if the adviser reports advising any pooled investment vehicles and equals zero otherwise. Both indicators are constructed as binary variables and are not mutually exclusive, since an adviser may simultaneously serve institutional clients and advise pooled investment vehicles.

Percent institutional clients and pooled investment vehicles. Obtained from Item 5.D.(3), which provides the regulatory assets under management attributable to specific client types. These variables represent the ratio of each type's aggregate AUM to the total reported AUM across all categories (retail, institutional, and pooled).

Adviser financial industry exposure. Items 6 and 7 provide information on advisers' involvement in, and relationships with, other financial industry activities. Item 6.A requires advisers to report whether they are actively engaged in other lines of business, including as a broker-dealer, bank, or trust company. Item 7 requires advisers to report whether they are related to, or have affiliations with, other financial industry participants, and Item 7.A specifically asks whether the adviser is affiliated with a broker-dealer or a banking or thrift institution, among other entities. Together, these disclosures identify advisers with direct or indirect exposure to financial industry activities that may give rise to conflicts of interest or additional regulatory constraints.

Using Items 6.A and 7.A, we construct a bank or broker-dealer exposure indicator that equals one if the adviser reports either (i) being actively engaged in business as a broker-dealer, bank, or trust company under Item 6.A, or (ii) having an affiliation with a broker-dealer or a banking or thrift institution under Item 7.A, and equals zero otherwise.

We gather all the narrative brochures contained in Form ADV Part 2A as these brochures include Item 17, Voting Client Securities, which describes whether the adviser accepts authority to vote client securities and how that authority is exercised. Internet Appendix IA.S4 below describes how we classify adviser voting disclosures based on three large language models.

IA.S3.3 Matching Form ADV filers to Form 13F managers

We match Form ADV filers to institutional investment managers on Form 13F using Central Index Key (CIK) and SEC Number identifiers, as well as adviser names. On Form ADV, the primary identifier for investment advisers is the SEC Number, which refers to a unique file number assigned to each SEC-registered investment adviser and is typically formatted as 801-XXXXXX (e.g., 801-114487).

We begin by downloading Form ADV data from EDGAR, focusing on investment advisers that filed Form ADV Part 1 in 2023. This step yields 16,279 unique advisers. Using the

associated link files for SEC Number-CIK pairs, we are able to assign 3,705 unique CIKs to this sample. However, these link files do not provide a complete set of SEC Number-CIK mappings.

To ensure more complete coverage, we employ an alternative approach. We first download all Form 13F-HR cover pages, including those for combination reports, that report both CIK and SEC Number for investment advisers, as listed under *List of Other Managers Reporting for this Manager* and *List of Other Included Managers*. Because either the CIK or SEC Number is often missing or incorrect, we manually correct these identifiers and fill in missing values. This step yields 1,559 valid SEC Number-CIK pairs.

For institutions that remain unmatched, we next perform exact name matching, which yields 3,431 additional matches. For the remaining institutions, we apply a fuzzy matching algorithm and manually review the candidate pairs. In some cases, names alone are insufficient to determine whether a match is valid. We therefore use firm address information from both Form ADV and Form 13F cover pages to validate these matches. The fuzzy matching procedure yields 1,050 additional matches. We then merge all identified SEC Number–CIK pairs into our ADV sample, resulting in 5,846 matched advisers.

Finally, we compare the 2,585 overlapping observations between the 3,705 matches obtained from EDGAR link files and the 5,846 matches from our alternative approach. We find that 113 matches from the former are incorrect, compared to only eight from the latter. After this step, 6,966 of the 16,279 investment advisers are assigned a CIK.

It is important to note that although the 6,966 SEC Number–CIK pairs are one-to-one, some unmatched CIKs correspond to parent companies (e.g., fund families). We again rely on Form 13F-HR cover pages to identify institutions that list subsidiaries and then search for these subsidiaries directly in the ADV database. In addition, we collect subsidiary information from EDGAR for the institutions that do not report subsidiaries on their 13F cover pages. This process identifies 833 investment advisers (375 with matched CIKs) belonging to 245 parent companies.

IA.S3.4 Form ADV coverage of the Form 13F universe

The definition of "institutional investment manager" under Rule 13f-1 encompasses a broader set of entities than those required to register under the Advisers Act. In our sample, 13F filers that file Form ADV, have a parent or at least one subsidiary that files Form ADV, or are exempt reporting advisers that do file Form ADV Part 1, account for approximately 84.7% of Form 13F filers and about 87.5% of aggregate 13F portfolio value. The remaining 13F filers are heterogeneous. Some are asset owners or client-type institutions, such as pension funds, endowments, foundations, and charities, for which voting authority may be retained or delegated to advisers. Others are investment-manager-like filers without ADV coverage, such as foreign asset managers and wealth managers. A group of 13F filers that does not map cleanly onto the adviser-client framework includes banks, bank holding companies, and broker-dealers. Internet Appendix Table IA.3 summarizes the composition of 13F filers without Form ADV coverage.

IA.S4 Classification of ADV Item 17 voting disclosures

This appendix describes how we classify Item 17 proxy voting disclosures from Form ADV according to the adviser's stated allocation of proxy voting authority across clients, accounts, and advisory arrangements. We also separately classify references to proxy advisory firms, including whether and how proxy advisers are used in the voting process.

IA.S4.1 Classification of voting-authority arrangements

We download all Form ADV Part 2A brochure PDF files from the SEC's Investment Adviser Registration Depository (IARD) system at adviserinfo.sec.gov/adv for the period 2022–2025. We use MinerU to convert the PDF files to Markdown format and then apply a rule-based extraction procedure to identify and extract text related to Item 17, Voting Client Securities.

We classify Item 17 proxy voting disclosures from Form ADV using a multi-stage procedure that draws on classifications from three large language models: Google Gemini, Anthropic Claude, and OpenAI ChatGPT.

In the first stage, we randomly sample 2,000 voting-policy disclosures and prompt Gemini to propose a parsimonious set of classification categories. We require that the categories be mutually exclusive, collectively exhaustive, and reflect economically meaningful governance mechanisms. We prompt Gemini as follows:

> "You are an expert research assistant specializing in empirical corporate finance and SEC regulatory filings. I will provide you with 2000 randomly sampled disclosures from Item 17 of Form ADV, which describe the proxy voting policies of investment advisers. Your goal is to help me develop a parsimonious and robust classification taxonomy for these disclosures. Please analyze the provided text samples to identify recurring themes, operational procedures, and regulatory disclosures. You should: (1) Induce a set of distinct categories that represent the core components of these policies; (2) Optimize the taxonomy to be parsimonious (minimizing the number of categories, ideally 5–8) and ensure categories are mutually exclusive. Then for each category, provide: (1) Label: A short, descriptive name; (2) Description: A concise definition of what types of disclosures fall into this category; (3) Decision Logic: Key phrases, linguistic markers, or specific regulatory topics that define the category."

This procedure yields five initial categories, which we inspect and consolidate into the following four final voting-authority categories. (1) Strict no-voting. The main filer's dominant default is that it does not vote and does not offer voting advice. Clients retain all voting rights. (2) Consultative non-voting. The main filer's dominant default is non-voting but it explicitly offers to advise or assist clients on how to vote. (3) Discretionary stewardship. The main filer accepts voting authority and votes based on its own fiduciary judgment. This category includes advisers that use proxy advisers such as ISS and Glass Lewis as a research input or voting agent while the firm retains voting authority. (4) Segmented or mixed voting authority. This category captures multiple voting treatments across client, account, or program types, as well as disclosures that otherwise do not fit into the first three categories.

In the second stage, we use the Gemini API to classify the full sample. We employ a detailed

prompt that explicitly enumerates edge cases explaining the fine distinctions that differentiate the category boundaries. The prompt instructs the model to classify the policy of the main filer only and to ignore statements about sub-advisers and other third parties, except when the main filer engages a proxy service as its own agent. We apply a "two-treatment test" that determines single-treatment status based solely on the number of distinct voting treatments the main filer attaches to different client types. The full prompt is as follows:

"You are an expert in corporate governance. Classify proxy voting disclosures from Form ADV Item 17 filed by an investment adviser (the 'main filer'). Assign exactly one category, plus an independent client_directed_flag. Output a confidence_score (0.0–1.0) and if_check flag (0 or 1).

Step 0 — Relevance Check. If the text is empty, gibberish, 'NOT FOUND', or clearly unrelated to proxy voting, do NOT assign a category; instead set category_id = −1, category_name = 'Irrelevant', confidence_score = 0.0, client_directed_flag = 0, if_check = 1.

Critical Scope Rule — Main Filer Only. We classify the policy of the MAIN FILER (the adviser filing this Form ADV), NOT its sub-advisers, third-party managers, or underlying fund managers. IGNORE all statements about what sub-advisers, independent managers, third-party managers, custodians, or underlying fund/insurance companies do with proxies for the accounts they manage. Such statements must NOT affect the classification and must NOT count toward the two-treatment test. EXCEPTION: If the main filer itself retains voting authority but engages a third-party proxy voting SERVICE (e.g., ISS, Glass Lewis, Broadridge) to execute or recommend votes on the firm's behalf, this counts as the FIRM voting (the service is the firm's agent) and is NOT ignored.

Purity Requirement — The Two-Treatment Test. Categories 1, 2, and 3 are PURE categories. Count how many DISTINCT voting treatments the MAIN FILER explicitly describes as its OWN policy and attaches to different client/account/program types. If the text describes exactly ONE main-filer treatment, the policy is PURE, regardless of how narrowly that treatment is scoped. If the text explicitly describes TWO OR MORE different main-filer treatments for different client/account/program types, it is NOT pure and is assigned to Cat 4 (Residual). Heterogeneity can ONLY be established by explicit contrast WITHIN the text, and only when the differing treatments are the MAIN FILER's own.

Rule A — Other Parties' Flexibility Does Not Break Purity. If the main filer's OWN policy is a single treatment, the fact that some OTHER party — a sub-adviser, custodian, underlying manager, or the CLIENT acting on their own — is given the flexibility to vote does NOT create a second treatment and does NOT push the case to Cat 4. Example: 'We do not vote proxies; clients may vote their own shares' has ONE treatment (non-voting), Cat 1.

Rule B — A Firm's Own Rare Discretionary Exception Does Not Break Purity. If the main filer states ONE dominant default treatment and reserves a rare/occasional exception that the FIRM ITSELF decides at its own discretion (not attached to a dis-

tinct client type), this is NOT heterogeneity; classify by the DOMINANT DEFAULT. Example: 'We generally do not vote proxies given our short-term strategy; in the case of an exception, our policy is to vote solely in the best interest of the client' is Cat 1.

Rule C — Vote Only When Authority Is Delegated. Distinguish Rule B from a regime that has NO dominant default, where whether the firm votes depends on whether authority is delegated on an account-by-account basis. If the text makes voting-vs-non-voting turn on per-client delegation WITHOUT a stated dominant default, then two treatments coexist on equal footing, Cat 4. Example: 'We vote proxies only for accounts for which we have been granted voting authority; for other accounts the client votes' is Cat 4.

Rule D — Do Not Extrapolate From Scope Qualifiers. A phrase that merely names which program, service, or client type the stated policy applies to is a scope qualifier; it does NOT imply that other programs/clients exist or are treated differently, and does NOT count toward the two-treatment test. Reasoning of the form 'the policy is limited to program X, therefore other programs must be treated differently' is EXTRAPOLATION and is FORBIDDEN. Classify based solely on what the text states, never on what it omits.

Rule E—Explicit Cross-Client Contrast. If the main filer's own text explicitly contrasts two treatments for different client types — including by stating that some clients reserve/retain the right to vote their own proxies WHILE the firm votes for the others — this is two main-filer-administered treatments, Cat 4.

Category Definitions. (1) Strict Non-Voting (pure): the main filer's dominant default is that it does not vote and does not offer voting advice; clients retain all voting rights. (2) Consultative Non-Voting (pure): the main filer's dominant default is non-voting BUT it explicitly offers to advise or assist clients on how to vote. (3) Discretionary Stewardship (pure): the main filer accepts voting authority and votes based on its own fiduciary judgment; using ISS/Glass Lewis as a research input or voting agent while the firm retains authority is Cat 3. (4) Residual: everything relevant to proxy voting that does NOT fit purely into Cat 1, 2, or 3, including explicit cross-client contrasts, vote-only-when-delegated regimes with no dominant default, structures where the client is the active decision-maker, and any ambiguous or mixed regime.

Independent Flag — client_directed_flag. Set client_directed_flag = 1 ONLY if the text EXPLICITLY states that the CLIENT DIRECTS THE ADVISER HOW TO VOTE a proxy — i.e., (a) the adviser is the party that casts the vote, (b) the client provides an instruction specifying HOW the proxy is to be voted, and (c) the adviser follows that instruction. It is NOT enough that the adviser merely lets the client vote, or that the client decides WHETHER the adviser votes at all. The flag is independent of the category.

Decision Order. Proceed sequentially and assign the FIRST category that matches: (1) Irrelevant, Cat −1; (2) pure Strict Non-Voting, Cat 1; (3) pure Consultative Non-Voting, Cat 2; (4) pure Discretionary Stewardship, Cat 3; (5) everything else, Cat 4. Independently determine client_directed_flag. Return ONLY a valid JSON object with

keys category_id, category_name, confidence_score, client_directed_flag, reasoning, and if_check."

We apply this prompt to each extracted Item 17 disclosure and retain the resulting category assignment, confidence score, client-directed flag, reasoning, and check indicator as the baseline Gemini classification.

In the third stage, we use Anthropic Claude to audit the baseline Gemini classifications. At this stage, we deliberately employ a short prompt that instructs the model not to assume that the prior Gemini-based classification is correct, to rely only on the original disclosure text, and to flag common failure modes such as misreading a proxy service as breaking the firm's own authority or overlooking client-directed language. The prompt we use for Claude is as follows:

"You are auditing another model's proxy-voting classification. Do not assume the other model is correct. Use only the original text.

Coding rules. (1) Category 1 = adviser does not vote client securities. (2) Category 2 = adviser does not vote but provides proxy-related advice, recommendations, research, opinions, or assistance. (3) Category 3 = adviser accepts authority to vote and votes using its own fiduciary judgment. (4) Category 4 = other, including client-directed, hybrid, segmented, or ambiguous policies. Set the client-directed flag to 1 only when the text explicitly says that the client will direct/instruct how to vote.

Important failure modes. 'Contact us with questions' is not enough for Category 2. 'Clients may direct our vote' or 'unless directed by client' means client-directed and should not be pure Category 3. A proxy service such as ISS/Broadridge is usually an agent and does not change Category 3. Sub-adviser/affiliate language should not override the main filer's own policy unless it creates a segmented/hybrid treatment.

Task. Given the original text and Gemini's classification, decide whether the classification is (A) likely correct, (B) likely wrong, or (C) ambiguous / needs human review. Return ONLY a single JSON object with keys audit_status ('A', 'B', or 'C'), corrected_category (integer 1–4 if audit_status is 'B', otherwise null), client_directed_flag (true or false), decisive_quotes (a list of short verbatim strings copied exactly from the original text), reason_short (one or two sentences), and error_type (a short label such as 'none', 'missed_category2_advice', 'missed_client_directed', 'agent_misread', 'fabricated_rationale', 'wrong_category', or 'ambiguous_text')."

We apply this audit prompt to each extracted Item 17 disclosure, providing Claude with the original disclosure text and the baseline Gemini classification, and retain Claude's audit status, category assessment, client-directed flag, decisive quotes, short reasoning, and error-type label.

In the fourth stage, we classify the full sample a third time using the OpenAI API with the same detailed prompt used for the Gemini classification, retaining the resulting category assignment, confidence score, client-directed flag, reasoning, and check indicator.

We then combine the outputs of the three large language models, determining the final

category and the final client-directed flag by majority rule across the Gemini, Claude, and OpenAI classifications. In approximately 0.6% of classified disclosures, the three models assign three different categories. We therefore manually review each of these Item 17 disclosures and assign the final category and client-directed flag.

Across the 97,255 extracted Item 17 disclosures, the three-model procedure yields substantial agreement. The three models assign the same category in 67.6% of cases. In another 31.8% of cases, two of the three models agree, allowing the final category to be assigned by majority rule. Complete disagreement, in which all three models assign different categories, occurs in only 0.6% of cases. Pairwise exact agreement is 88.8% between Gemini and OpenAI, 71.6% between Gemini and Claude, and 74.1% between Claude and OpenAI. The lower pairwise agreement involving Claude is consistent with the fact that Claude is used with a shorter audit-oriented prompt, whereas Gemini and OpenAI are both run using the same detailed classification prompt.

For each adviser, identified by its SEC file number, and each year from 2023 through 2025, we select one version of each distinct brochure using July 1 as the reference date. We use the most recent version filed on or before July 1 and if no such version is available, we use the earliest version filed after July 1 in that calendar year. We classify each selected brochure as described above and then aggregate the brochure-level classifications to the adviser-year level. If all brochures receive the same category, we assign that category to the adviser-year. If the brochures receive two or more distinct categories, we assign category 4, voting rights segmented by capital pool.

IA.S4.2 Classification of proxy-adviser references

We also use Gemini to identify and categorize references to third-party proxy advisers in Item 17 based on the nature of their role. We randomly sample 2,000 voting-policy disclosures and prompt Gemini as follows:

> "You are an expert academic researcher in corporate governance and financial regulation. Some of these texts may refer to the use of third-party services or policies relating to third parties (while other texts may not mention third parties at all). I would like to examine the different categories of third parties reflected in the texts that do make such references. Analyze the texts, identify commonalities among the relevant passages, list several possible categories, and provide definitions for each category along with the reasoning behind your classification. These categories do not need to be mutually exclusive."

The output that we obtain is as follows: "*(i) Uses proxy advisers as research input while retaining final decision-making authority*: The adviser subscribes to professional research firms (e.g., ISS or Glass Lewis) to receive data, reports, and non-binding voting recommendations. The final vote is determined by the adviser's internal committee or portfolio managers. This is a common category, allowing advisers to leverage the analytical resources of specialized firms to manage high volumes of proxy ballots while ensuring that voting remains tailored to the firm's specific investment strategies and fiduciary duties. Key Evidence: Mentions of "research reports," "non-binding recommendations," "governance data," and specific vendor

names like "Institutional Shareholder Services."

(ii) Adopts proxy adviser voting guidelines as part of internal voting policy: The firm formally incorporates the published, standardized voting guidelines of a proxy adviser as its own internal framework. Rather than developing a unique set of rules, the firm relies on the third party's policy architecture to govern how it evaluates various corporate governance issues. This approach provides a clear, transparent voting framework for clients, streamlining policy development and ensuring consistency across a wide range of accounts without requiring an extensive internal governance team. Key Evidence: Phrases such as "adopts the ISS Proxy Voting Guidelines," "votes are cast in accordance with PA policy," and "follows standard guidelines."

(iii) Defaults to proxy adviser recommendations except under special circumstances: The firm's standard operating procedure is to automatically follow the specific "For/Against" recommendations issued by a proxy adviser for each individual proposal. Internal intervention or overrides occur only in exceptional cases or for specifically flagged sensitive issues. This mechanism significantly reduces the cognitive and administrative burden of analyzing every ballot item, providing a systematic and objective benchmark that ensures votes are cast efficiently and without delay. Key Evidence: Keywords such as "generally follow the recommendations," "votes in accordance with recommendations unless," and "default to PA position."

(iv) Delegates vote execution to proxy advisers or third-party providers: The firm utilizes specialized third-party platforms or vendors (e.g., Broadridge) to handle the mechanical and operational logistics of the proxy process, including ballot delivery, electronic voting, and regulatory record-keeping. This category focuses on the "plumbing" of the proxy system, ensuring technical compliance with SEC Rule 206(4)-6 and guaranteeing that ballots are submitted accurately and on time across global markets. Keywords such as "proxy voting platform," "administrative assistance," "electronic delivery," "Broadridge," and "record-keeping services.""

We experimented with a random sample of 4,000 observations as well, and Gemini gave us the same categories and reasoning, showing that the initial classification is robust. We then use the following prompt to classify the entire sample:

> "You are an expert academic researcher in corporate governance and financial regulation. Your task is to analyze "Proxy Voting" disclosure texts from Form ADV to identify the specific nature of a firm's reliance on third-party entities. Notice that the texts may not mention third-party involvement at all so you shouldn't over identify."

The category definitions that we provide are given as follows:

> Category Definitions.
>
> 1. research_input: Uses proxy advisers as research input while retaining final decision-making authority. The firm subscribes to research, data, and reports provided by proxy advisory firms (such as ISS or Glass Lewis) to inform its internal delibera-

tion, but explicitly states that the ultimate voting decision remains with its own internal committees or portfolio managers.

2. adopt_guidelines: Adopts proxy adviser voting guidelines as part of internal voting policy. The firm formally incorporates the published, standardized voting guidelines of a proxy adviser as its own internal framework to govern how it evaluates corporate governance issues.

3. default_rec: Defaults to proxy adviser recommendations except under special circumstances. The firm's standard operating procedure is to automatically follow the specific "For/Against" recommendations issued by a proxy adviser for each proposal, unless exceptional cases or sensitive issues are flagged.

4. delegate_execution: Delegates vote execution to proxy advisers or third-party providers. The firm utilizes specialized third-party platforms or vendors (such as Broadridge) to handle the mechanical and operational aspects of the proxy process, including ballot delivery, electronic voting, and regulatory record-keeping.

"These categories are NOT mutually exclusive. Assign 1 if the practice is present, 0 otherwise. *IMPORTANT:* The text may not mention third-party involvement at all. If the text does not mention any third-party, assign 0 to all categories."

Finally, after we obtain the classification results, we merge these four category indicators into the dataset. Internet Appendix Table IA.5 presents this information.

Table IA.1: **Firm-level sample coverage**

This table reports firm counts by meeting quarter and provides details on the construction of the firm-level sample. For each quarter, we begin with all CRSP firms with common share codes 10 and 11. We drop non-voting share classes. We then restrict the sample to firms whose annual or special meeting date falls within the same quarter, based on meeting-date information from ISS Voting Analytics. Finally, we further restrict the sample to firms with a say-on-pay vote, as say-on-pay proposals are the voting items subject to mandatory disclosure under Form N-PX. The final column reports totals across all quarters. For the last two rows, the sum of the four quarterly figures exceeds the full-sample figure because some firms hold multiple annual or special meetings during the sample period, or hold both an annual meeting and a special meeting.

	2023Q3	2023Q4	2024Q1	2024Q2	Full Sample
CRSP common share codes 10 & 11	4,175	4,111	4,041	3,986	4,284
Firms in ISS Voting Analytics	434	488	377	2,809	3,827
Firms with SOP meetings	236	253	207	2,204	2,857

Table IA.2: **Client-posted investment management agreements: Illustrative proxy voting provisions**

This table provides excerpts from investment management agreements and templates posted online by institutional clients. Panel A reports non-pension clients, and Panel B reports pension and retirement-system clients. The examples illustrate variation in whether proxy voting authority is retained by the client, delegated to the adviser, or delegated subject to client instructions or policies.

Panel A: Non-pension clients

Client type	Client name	Manager name	Year	Representative excerpt	Proxy-voting arrangement
Municipal	City of Banning	Chandler Asset Management	2023	"Proxy Voting. Chandler will vote proxies on behalf of Client unless otherwise instructed. Chandler has adopted and implemented written policies and procedures and will provide Client with a description of the proxy voting procedures upon request. Chandler will provide information regarding how Clients' proxies were voted upon request."	Adviser votes unless client instructs otherwise
Municipal	City of Fernley	Atlanta Capital Management	2020	"Proxies. Unless otherwise specifically instructed by Client, Manager shall vote securities held in the Account in response to the proxies solicited by the issuers of such securities in accordance with Manager's proxy voting guidelines. Client will cause Custodian (as defined below) to promptly deliver proxies to Manager and furnish such other assistance in voting as may be reasonably required from time to time. Manager has the authority to engage a service provider to assist with voting and administrative functions related to voting Client proxies."	Adviser votes unless client instructs otherwise; may use proxy-service provider
Municipal / county trust	Dinwiddie County Board of Supervisors, as trustee	Thompson, Siegel & Walmsley	2021	"Voting of Portfolio Securities: (Please initial only one as applicable) a: [____] The Adviser will vote proxies for securities held in the Account. Client agrees to instruct the Custodian to forward all proxy materials and related shareholder communications to the Adviser promptly upon receipt. b: [____] Client will reserve the right to vote proxies for securities held in the Account. The Adviser is expressly precluded from voting proxies for securities held in the Account or rendering related advice."	Client elects whether adviser votes or client retains voting authority

Table IA.2 continued

Panel B: Pension and retirement-system clients

Client type	Client name	Manager name	Year	Representative excerpt	Proxy-voting arrangement
Public pension	Illinois State Universities Retirement System	Investment manager template	–	"Proxies. The Investment Manager will vote all proxies in accordance with the Proxy Voting Guidelines contained in SURS' written investment policies, unless otherwise notified in writing by SURS. The Investment Manager shall report to SURS any proxies voted in respect of the Fund in accordance with Exhibit B attached hereto."	Adviser votes subject to client proxy-voting guidelines
Public pension	Kentucky County Employees Retirement System	J.P. Morgan Investment Management Inc.	2025	"Voting of Proxies. CERS authorizes and directs Manager, [redacted] to retain [redacted] to vote all proxies and effect all corporate actions with respect to CERS' securities under Manager's management pursuant to this Agreement ("CERS Securities"), solely in accordance with CERS' Proxy Voting Guidelines [...] For the avoidance of doubt, the Manager shall have no discretion to vote any proxies or effect any corporate actions with respect to CERS Securities other than in accordance with the foregoing."	Adviser retains proxy-voting agent; votes constrained by client proxy-voting guidelines

Table IA.2 continued

Panel B: Pension and retirement-system clients, continued

Client type	Client name	Manager name	Year	Representative excerpt	Proxy-voting arrangement
Public pension	Kentucky County Employees Retirement System	T. Rowe Price Associates, Inc.	2025	"Voting of Proxies. The Manager will not vote proxies for the Account; [redacted]" "The CERS Board recognizes that the voting of proxies is an important responsibility in assuring the overall performance over a longtime horizon. The CERS Board has delegated the responsibility of voting all proxies to an outside Proxy Voting service provider or contracted external investment manager. The CERS Board expects that the proxy voting service will execute all proxies in a timely fashion, and in accordance with the voting policy which has been formally adopted. The CERS Board has adopted the ISS U.S. Proxy Voting Guidelines as the CERS approved Proxy Voting Policy for all internally voted items. This policy is updated at least annually by ISS and is and hereby incorporated by this reference."	Manager does not vote proxies; client delegates voting to proxy-voting service provider or external manager under client policy
Public pension	Kentucky Retirement Systems and Kentucky Retirement Systems Insurance Trust Fund	Saba Capital Management	2024	"Proxies. The Manager shall be solely responsible for voting proxies and the exercise of other corporate actions or similar rights in relation to assets in the Account according to the Client's Proxy Voting Policy [...] and Client's governing statutes applicable to proxies. The Manager shall [...] and, shall provide quarterly written reports regarding any such actions taken with respect to proxy voting or the exercise of any other similar right in respect of the Account"	Adviser votes under client proxy-voting policy and reports voting activity

Table IA.3: **Composition of Form 13F filers without Form ADV coverage**

This table provides information on Form 13F filers that neither file Form ADV nor have a subsidiary or parent that files Form ADV. Exempt reporting advisers are excluded because they file Form ADV Part 1. Categories are based on filer names and public descriptions from official websites. The first column reports the number of institutions in each category, the second column reports the percentage of filers in this table, and the third column reports each category's share of the aggregate 13F portfolio value of all non-ADV filers.

Category	Institution type	Count	% non-ADV filers	% of non-ADV 13F port value
Asset owners / client-type institutions	Public pensions, foreign pensions, corporate pensions, endowments, foundations, charities, nonprofits, family offices, individuals, sovereign wealth funds	187	16.9	26.3
Investment-manager-like filers without ADV coverage	Foreign asset managers, wealth managers, hedge funds, private equity, venture capital	475	43.0	32.9
Financial intermediaries	Banks, trust companies, broker-dealers, insurers	366	33.2	14.2
Trading	Trading firms, market makers, proprietary trading firms	33	3.0	22.3
Other	Trusts, closed-end funds, holding companies, operating companies	43	3.9	4.3

Table IA.4: **Persistence of ADV voting-policy classifications**

This table reports the distribution and persistence of registered investment advisers' Form ADV Item 17 voting-policy classifications over 2023–2025. Panel A reports, for each year, the number of advisers for which we can classify Item 17 and the percentage assigned to each of the four voting-policy categories. Panel B reports one-year transition matrices for the 2023–2024 and 2024–2025 transitions. For each transition matrix, we restrict the sample to advisers with valid Item 17 classifications in both adjacent years. Each cell in Panel B reports the percentage of advisers classified in category i in year t that are classified in category j in year $t+1$. Percentages in each row sum to 100 before rounding.

Panel A: Distribution of voting-policy classifications by year

	2023	2024	2025
Number of advisers	15,702	16,090	16,595
(1) Strict no-voting (%)	25.7	26.1	26.6
(2) Consultative non-voting (%)	27.1	28.0	28.8
(3) Discretionary stewardship (%)	27.3	26.9	26.3
(4) Segmented voting (%)	19.9	19.1	18.3

Panel B: One-year transition matrices (%)

Category in 2023	Category in 2024			
	Strict no-voting	Consultative non-voting	Discretionary stewardship	Segmented voting
Strict no-voting	97.0	1.0	0.8	1.2
Consultative non-voting	1.2	97.7	0.2	1.0
Discretionary stewardship	1.1	0.4	96.1	2.4
Segmented voting	2.3	1.7	3.3	92.8

Category in 2024	Category in 2025			
	Strict no-voting	Consultative non-voting	Discretionary stewardship	Segmented voting
Strict no-voting	97.0	1.0	0.9	1.1
Consultative non-voting	1.3	97.6	0.2	0.9
Discretionary stewardship	1.0	0.3	95.9	2.7
Segmented voting	1.9	1.3	3.2	93.5

Table IA.5: **Proxy adviser use across voting policy categories**

This table reports the distribution of proxy adviser use across the two voting policy categories described in Section 3.4 in which the adviser may vote client securities. Internet Appendix IA.S4.2 describes the implementation details of the classification procedure. The first row reports whether an adviser reports engaging proxy advisers in any capacity. The remaining rows, labeled (i)–(iv), classify specific forms of reliance on proxy advisers and are not mutually exclusive: (i) use of proxy advisers as informational input while retaining internal decision-making authority; (ii) adoption of proxy adviser voting guidelines within internal policies; (iii) default reliance on proxy adviser recommendations subject to override; and (iv) delegation of vote execution to third-party providers. Entries report the percentage of advisers within each category that reference each form of use.

Proxy adviser use	Adviser accepts authority to vote (%)	Voting rights segmented by capital pool (%)
Any proxy adviser involvement	18.49	22.13
Forms of reliance; not mutually exclusive:		
(i) Uses proxy advisers as research input while retaining final decision-making authority	10.91	13.14
(ii) Adopts proxy adviser voting guidelines as part of internal voting policy	2.84	4.51
(iii) Defaults to proxy adviser recommendations except under special circumstances	4.99	6.62
(iv) Delegates vote execution to proxy advisers or third-party providers	13.38	17.17

Table IA.6: **Illustrative voting-utilization observations for Sands Capital Management, LLC**

This table reports a subset of voting-utilization observations (δ_{ij}) for Sands Capital Management, LLC (CIK: 0001020066). Voting utilization is defined as $\delta_{ij} = V_{ij}/O_{ij}$, where V_{ij} is the number of shares voted through the reporting institution and O_{ij} is total Form 13F holdings (sole, shared, and none), measured at the quarter-end immediately preceding the meeting record date. The beginning-of-quarter holdings form the denominator of δ_{ij} while the end-of-quarter holdings are reported for comparison. The table also reports shares loaned and not recalled from Form N-PX. The value marked † is inferred because no voting record for the company appears in the institution's Form N-PX. Consistent with the sample-construction rule in Section 4, we set $V_{ij} = 0$ because the institution reports votes for other portfolio companies and holds the stock at the quarter-ends immediately before and after the record date. Shares loaned and not recalled are unavailable for this observation. A dash denotes an unavailable value. Panel A reports the 20 smallest observations, and Panel B reports the 20 largest observations. Data are drawn from the following SEC filings: N-PX (2024-06-30), 13F-HR (2024-06-30), 13F-HR (2024-03-31), 13F-HR (2023-12-31), 13F-HR (2023-09-30), 13F-HR (2023-06-30), 13F-HR (2023-03-31).

			Beginning of quarter 13F holdings			End of quarter 13F holdings			N-PX		
Company name	Record date	Meeting date	Sole	Shared	None	Sole	Shared	None	Shares voted	Shares loaned not recalled	δ_{ij}
Panel A: Bottom 20 holdings by δ_{ij}											
Bill Holdings, Inc.	2023-10-12	2023-12-07	1,255	0	0	1,255	0	0	0†	–	0.000
DexCom, Inc.	2024-03-27	2024-05-22	10,487,337	0	4,571,469	7,597,463	0	3,299,301	7,486,275	0	0.497
Visa Inc.	2023-11-24	2024-01-23	5,773,970	0	2,012,734	4,737,541	0	1,736,204	4,417,801	0	0.567
Uber Technologies, Inc.	2024-03-13	2024-05-06	4,653,536	0	1,837,783	3,588,936	0	1,471,287	3,691,389	0	0.569
Repligen Corporation	2024-03-18	2024-05-16	986,389	0	508,948	960,556	0	472,181	901,986	0	0.603
iRhythm Technologies, Inc.	2024-04-03	2024-05-29	1,434,801	0	708,225	1,428,719	0	697,284	1,340,378	0	0.625
GitLab Inc.	2024-04-15	2024-06-11	114,759	0	0	127,475	0	0	72,357	0	0.631
Floor & Decor Holdings, Inc.	2024-03-13	2024-05-08	1,609,538	0	630,427	1,490,088	0	605,296	1,417,338	0	0.633
ServiceNow, Inc.	2024-03-26	2024-05-23	1,316,594	0	380,004	1,114,390	0	313,759	1,100,485	0	0.649
Amazon.com, Inc.	2024-03-28	2024-05-22	9,400,457	0	3,826,001	8,894,059	0	3,614,652	8,603,759	0	0.650
Align Technology, Inc.	2024-03-25	2024-05-22	975,659	0	454,439	931,977	0	424,333	936,706	0	0.655
Edwards Lifesciences Corporation	2024-03-08	2024-05-07	4,246,914	0	1,856,788	4,036,488	0	1,766,064	4,086,854	0	0.670
10X Genomics, Inc.	2024-04-15	2024-06-11	2,441,151	0	941,990	1,578,659	0	756,242	2,288,051	0	0.676
MercadoLibre, Inc.	2024-04-09	2024-06-05	592,850	0	263,215	551,113	0	231,468	581,240	0	0.679
Snowflake Inc.	2023-05-12	2023-07-05	3,849,604	0	1,294,937	3,656,410	0	1,314,633	3,505,071	0	0.681
Axon Enterprise, Inc.	2024-03-15	2024-05-10	1,897,984	0	730,668	1,852,439	0	677,655	1,799,915	0	0.685
NIKE, Inc.	2023-07-12	2023-09-12	3,166,725	0	1,454,546	3,110,348	0	1,441,289	3,169,207	0	0.686
Netflix, Inc.	2024-04-08	2024-06-06	1,195,882	0	491,505	1,127,625	0	473,333	1,168,757	0	0.693
Airbnb, Inc.	2024-04-08	2024-06-05	1,713,567	0	725,494	1,563,974	0	704,806	1,705,605	0	0.699
DoorDash, Inc.	2024-04-24	2024-06-20	4,810,478	0	2,016,258	4,439,033	0	1,934,304	4,779,116	0	0.700
Panel B: Top 20 holdings by δ_{ij}											
Bio-Techne Corporation	2023-09-01	2023-10-26	7,566	0	0	9,530	0	0	8,851	0	1.170
Intercontinental Exchange, Inc.	2024-03-21	2024-05-17	579,820	0	0	592,477	0	0	592,578	0	1.022
IQVIA Holdings, Inc.	2024-02-20	2024-04-16	396,321	0	0	403,956	0	0	404,285	0	1.020
Texas Instruments Incorporated	2024-02-28	2024-04-25	520,209	0	0	530,226	0	0	530,472	0	1.020
SiteOne Landscape Supply, Inc.	2024-03-08	2024-05-07	310,771	0	0	316,764	0	0	316,817	0	1.019
Zoetis Inc.	2024-03-28	2024-05-22	446,702	0	0	455,297	0	0	455,375	0	1.019
Cadence Design Systems, Inc.	2024-03-04	2024-05-02	3,208	0	0	3,255	0	0	3,255	0	1.015
Illumina, Inc.	2024-03-22	2024-05-16	103	0	0	103	0	0	103	0	1.000
UnitedHealth Group Incorporated	2024-04-05	2024-06-03	156,972	0	0	243,363	0	0	156,972	0	1.000
UiPath, Inc.	2024-04-26	2024-06-20	44,642	0	0	73,641	0	0	44,642	0	1.000
Match Group, Inc.	2024-04-22	2024-06-21	821	0	0	–	–	–	821	0	1.000
Adobe Inc.	2024-02-20	2024-04-17	160	0	0	160	0	0	160	0	1.000
Intuit Inc.	2023-11-20	2024-01-18	195	0	0	195	0	0	195	0	1.000
Coursera, Inc.	2024-03-22	2024-05-21	1,285	0	0	1,285	0	0	1,285	0	1.000
TransDigm Group Incorporated	2024-01-12	2024-03-07	114,629	0	0	117,010	0	0	114,124	0	0.996
Roper Technologies, Inc.	2024-04-18	2024-06-12	376,488	0	0	406,490	0	0	348,900	0	0.927
Microsoft Corporation	2023-09-29	2023-12-07	2,902,635	0	906,068	3,138,379	0	997,421	3,140,376	0	0.825
CoStar Group, Inc.	2024-04-10	2024-06-06	4,482,028	0	893,454	5,398	0	0	4,323,492	0	0.804
Coupang, Inc.	2024-04-19	2024-06-13	10,612,950	0	2,543,308	10,408,427	0	2,281,115	10,392,230	0	0.790
Datadog, Inc.	2024-04-09	2024-06-05	3,146,630	0	1,146,757	3,079,449	0	1,124,231	3,177,749	0	0.740

Table IA.7: **Illustrative voting-utilization observations for California Public Employees' Retirement System**

This table reports a subset of voting utilization observations (δ_{ij}) for the California Public Employees' Retirement System (CIK: 919079). Voting utilization is defined as $\delta_{ij} = V_{ij}/O_{ij}$, where V_{ij} is the number of shares voted through the reporting institution and O_{ij} is total Form 13F holdings (sole, shared, and none), measured at the quarter-end immediately preceding the meeting record date. The beginning-of-quarter holdings form the denominator of δ_{ij} while the end-of-quarter holdings are reported for comparison. The table also reports shares loaned and not recalled from Form N-PX. The value marked † is inferred because no voting record for the company appears in the institution's Form N-PX. Consistent with the sample-construction rule in Section 4, we set $V_{ij} = 0$ because the institution reports votes for other portfolio companies and holds the stock at the quarter-ends immediately before and after the record date. Shares loaned and not recalled are unavailable for this observation. A dash denotes an unavailable value. Panel A reports the 20 smallest observations, and Panel B reports the 20 largest observations. Data are drawn from the following SEC filings: N-PX (2024-06-30), 13F-HR (2024-06-30), 13F-HR (2024-03-31), 13F-HR (2023-12-31), 13F-HR (2023-09-30), 13F-HR (2023-06-30), 13F-HR (2023-03-31).

			Beginning of quarter 13F holdings			End of quarter 13F holdings			N-PX		
Company name	Record date	Meeting date	Sole	Shared	None	Sole	Shared	None	Shares voted	Shares loaned not recalled	δ_{ij}
Panel A: Bottom 20 holdings by δ_{ij}											
The New York Times Company	2024-03-01	2024-04-24	299,085	0	0	290,792	0	0	0†	–	0.000
Lucid Group, Inc.	2024-04-10	2024-06-04	1,055,273	0	0	1,317,396	0	0	3	1,055,270	0.000
Plug Power Inc.	2024-04-08	2024-06-05	769,612	0	0	774,830	0	0	11	769,601	0.000
GameStop Corp.	2024-04-19	2024-06-17	165,615	0	0	137,767	0	0	3	135,612	0.000
Helmerich & Payne, Inc.	2024-01-02	2024-02-27	170,000	0	0	166,712	0	0	4	169,996	0.000
Sprout Social, Inc.	2024-03-28	2024-05-22	68,549	0	0	68,549	0	0	2	68,547	0.000
Generac Holdings Inc.	2024-04-15	2024-06-13	81,799	0	0	100,349	0	0	3	81,796	0.000
Chart Industries, Inc.	2024-03-28	2024-05-21	60,159	0	0	60,159	0	0	3	60,156	0.000
JetBlue Airways Corporation	2024-03-22	2024-05-17	491,899	0	0	491,899	0	0	26	491,873	0.000
Fluor Corporation	2024-03-04	2024-05-01	190,824	0	0	191,617	0	0	19	190,805	0.000
10X Genomics, Inc.	2024-04-15	2024-06-11	121,217	0	0	145,667	0	0	14	121,203	0.000
Doximity, Inc.	2023-06-01	2023-07-26	112,965	0	0	126,707	0	0	25	112,940	0.000
Alcoa Corporation	2024-03-12	2024-05-10	247,045	0	0	247,045	0	0	85	246,960	0.000
Sensient Technologies Corporation	2024-02-28	2024-04-25	71,503	0	0	72,792	0	0	29	71,474	0.000
Intellia Therapeutics, Inc.	2024-04-15	2024-06-12	126,624	0	0	127,435	0	0	69	126,555	0.001
DT Midstream, Inc.	2024-03-13	2024-05-10	169,579	0	0	176,442	0	0	108	169,471	0.001
Penumbra, Inc.	2024-04-12	2024-06-05	50,078	0	0	51,779	0	0	60	50,018	0.001
Inspire Medical Systems, Inc.	2024-03-05	2024-05-02	40,337	0	0	40,337	0	0	54	40,283	0.001
AMN Healthcare Services, Inc.	2024-02-21	2024-04-19	80,223	0	0	75,951	0	0	224	79,999	0.003
Chesapeake Energy Corporation	2024-04-08	2024-06-06	219,685	0	0	219,452	0	0	1,383	219,624	0.006
Panel B: Top 20 holdings by δ_{ij}											
HCA Healthcare, Inc.	2024-02-26	2024-04-25	375,204	0	0	359,237	0	0	936,599	2,400	2.496
ALLETE, Inc.	2024-03-15	2024-05-14	102,768	0	0	332,096	0	0	243,668	88,428	2.371
Loews Corporation	2024-03-19	2024-05-14	348,800	0	0	989,682	0	0	826,715	58,227	2.370
PulteGroup, Inc.	2024-03-15	2024-05-06	437,832	0	0	426,973	0	0	1,006,199	0	2.298
HEICO Corporation	2024-01-19	2024-03-15	74,125	0	0	46,921	0	0	160,812	70,154	2.169
Credit Acceptance Corporation	2024-04-08	2024-06-05	13,922	0	0	13,849	0	0	28,021	4,609	2.013
Lennar Corporation	2024-02-14	2024-04-10	485,411	0	0	467,928	0	0	925,686	0	1.907
Taylor Morrison Home Corporation	2024-04-01	2024-05-23	211,769	0	0	184,182	0	0	386,727	96,740	1.826
nCino, Inc.	2024-04-22	2024-06-20	119,975	0	0	136,163	0	0	218,394	64,278	1.820
D.R. Horton, Inc.	2023-11-30	2024-01-17	624,769	0	0	600,908	0	0	1,125,421	39,911	1.801
Wells Fargo & Company	2024-03-04	2024-04-30	6,933,872	0	0	7,060,958	0	0	12,057,685	0	1.739
Hewlett Packard Enterprise Company	2024-02-12	2024-04-10	7,877,490	0	0	7,744,459	0	0	13,171,805	0	1.672
Emerson Electric Co.	2023-11-28	2024-02-06	1,092,348	0	0	1,696,755	0	0	1,743,256	0	1.596
Meritage Homes Corporation	2024-03-21	2024-05-16	73,669	0	0	67,674	0	0	116,814	37,094	1.586
The Goldman Sachs Group, Inc.	2024-02-26	2024-04-24	732,698	0	0	720,258	0	0	1,158,347	0	1.581
The TJX Companies, Inc.	2024-04-08	2024-06-04	2,230,475	0	0	2,628,457	0	0	3,297,427	0	1.478
NVR, Inc.	2024-03-05	2024-05-07	6,082	0	0	6,030	0	0	8,866	0	1.458
General Motors Company	2024-04-15	2024-06-04	2,112,902	0	0	2,112,788	0	0	3,047,006	2,385,872	1.442
Wyndham Hotels & Resorts, Inc.	2024-03-11	2024-04-19	157,999	0	0	159,013	0	0	224,418	0	1.420
Booking Holdings Inc.	2024-04-09	2024-06-04	67,354	0	0	66,641	0	0	95,550	0	1.419

Table IA.8: **Robustness of voting utilization across institutions**

This table provides robustness tests and supporting diagnostics for the institution-level voting utilization summarized in Table 4. Panel A restricts the sample to meetings for which the beginning-of-quarter ownership measure and the record date occur within 10 days (proximate dates). Panel B restricts the sample to institution–company pairs with small quarter-to-quarter ownership changes, defined as an absolute change in reported Form 13F holdings of no more than 5% between quarters preceding and subsequent to the record date. Panel C reports averages of the institution-level statistics by institutional size, measured using quintiles of reported 13F portfolio value. Panel D reports summary statistics for institution-level voting-utilization measures computed using value-weighted, rather than equal-weighted, institution–company observations. For each institution i, the observations for δ_{ij} and L_{ij}/O_{ij} are weighted by the dollar value of institution i's ownership in company j, measured using the Form 13F ownership report immediately preceding the record date. The value-weighted observations are then used to compute $\bar{\delta}_i$, $\sigma_{\delta,i}$, and Mean(L_{ij}/O_{ij}). When shares voted are missing, we assign a value of zero if the manager votes on other portfolio companies and holds shares at the quarter ends immediately before and after the record date. All panels restrict the sample to institutions with at least ten voting-utilization observations. Winsorization follows the procedure used in Table 4. All δ_{ij} observations are pooled across filers, the pooled 99th percentile is computed, and observations above this cutoff are set equal to the cutoff. The lending ratio L_{ij}/O_{ij} is winsorized using the same procedure. Institution-level statistics are then computed from the winsorized observations.

Panel A: Institution-level voting utilization (proximate dates)

Statistic	Mean	Median	SD	P10	P90	Institutions
$\bar{\delta}_i$	0.740	0.807	0.496	0.088	1.091	1,450
$\sigma_{\delta,i}$	0.394	0.288	0.460	0.027	0.838	1,450
Mean(L_{ij}/O_{ij})	0.011	0	0.048	0	0.015	1,450

Panel B: Institution–company pairs with minimal quarter-to-quarter ownership changes

Statistic	Mean	Median	SD	P10	P90	Institutions
$\bar{\delta}_i$	0.742	0.815	0.515	0.105	1.052	1,994
$\sigma_{\delta,i}$	0.376	0.296	0.414	0.033	0.779	1,994
Mean(L_{ij}/O_{ij})	0.008	0	0.040	0	0.011	1,994

Panel C: Voting utilization by institutional size (13F portfolio-value quintiles)

	Q1 (smallest)	Q2	Q3	Q4	Q5 (largest)
$\bar{\delta}_i$	0.760	0.771	0.732	0.774	0.796
$\sigma_{\delta,i}$	0.496	0.463	0.469	0.518	0.662
Mean(L_{ij}/O_{ij})	0.006	0.004	0.004	0.009	0.021

Panel D: Value-weighted institution-level voting utilization

Statistic	Mean	Median	SD	P10	P90	Institutions
$\bar{\delta}_i$	0.733	0.815	0.453	0.130	1.014	2,494
$\sigma_{\delta,i}$	0.312	0.259	0.297	0.069	0.531	2,494
Mean(L_{ij}/O_{ij})	0.006	0	0.036	0	0.006	2,494

Table IA.9: **Adviser characteristics and the choice of proxy voting policy**

This table reports multinomial logit regression results for Form ADV filers. The dependent variable is the adviser's proxy voting policy category, classified into the four categories defined in Section 3.4 based on Item 17 of Form ADV. The omitted category is "Adviser does not vote." The explanatory variables include the logarithm of regulatory assets under management, the share of AUM managed on a non-discretionary basis, the logarithm of the number of clients, the percentage of AUM attributable to institutional clients, the percentage of AUM attributable to pooled investment vehicles, and an indicator for financial industry exposure. Advisers with zero or missing values for AUM or clients are excluded from the analysis. Detailed variable definitions are reported in Internet Appendix Section IA.S3. Huber–White robust standard errors are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	Voting policy outcome (omitted category: Adviser does not vote)		
	Adviser does not vote by default but offers advice	Adviser accepts authority to vote	Voting rights segmented by capital pool
Log regulatory AUM	-0.0349**	0.3780***	0.2849***
	(0.0172)	(0.0222)	(0.0228)
Percent non-discretionary	-0.3049***	-1.9049***	-1.0696***
	(0.0840)	(0.1256)	(0.1094)
Log number of clients	0.1418***	-0.2696***	0.0091
	(0.0178)	(0.0183)	(0.0183)
Percent institutional clients	0.2223***	0.2190***	1.1206***
	(0.0558)	(0.0625)	(0.0707)
Percent pooled vehicles	-1.3317***	1.4346***	1.1478***
	(0.0969)	(0.0807)	(0.0808)
Adviser financial industry exposure	-0.1509***	-0.1411**	-0.3747***
	(0.0514)	(0.0699)	(0.0625)
Constant	0.3051	-7.1193***	-6.8208***
	(0.2926)	(0.3911)	(0.4097)
Observations	14,192	14,192	14,192
Advisers	3,999	3,955	2,766

Table IA.10: **Robustness of the relation between portfolio weight and voting utilization**

This table provides a robustness test for the institution–company variation in voting utilization reported in Table 8, with specifications corresponding to its columns (1)–(2) and (4)–(5). We restrict the sample to meetings for which the beginning-of-quarter ownership measure and the record date occur within 10 days to reduce potential measurement error in voting utilization and portfolio weights. The restricted sample contains no proxy contests, so the proxy contest indicator is omitted. The dependent variable, δ_{ij}, is defined as shares voted by institution i at firm j's meeting divided by institution i's reported ownership in firm j. This measure is winsorized at the 99th percentile. The golden parachute indicator equals one if the meeting includes an advisory vote to approve compensation arrangements in connection with a merger or acquisition, and zero otherwise. The close vote indicator equals one if the support rate is within 5% of the passing threshold, and zero otherwise. Portfolio weight is the value of the stock held divided by the institution's total portfolio value. Log(assets) is the logarithm of firm assets in millions of dollars. Profitability is return on assets, defined as EBITDA divided by assets and winsorized at the 0.5% level. 13F ownership equals aggregate 13F holdings divided by shares outstanding. Standard errors, reported in parentheses, are two-way clustered by institution and firm. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Dependent variable: δ_{ij}			
	(1)	(2)	(3)	(4)
Portfolio weight	-1.220***	-0.708***	-0.712***	-0.713***
	(0.315)	(0.257)	(0.257)	(0.257)
Golden parachute indicator		0.024		0.025
		(0.031)		(0.031)
Close vote indicator			-0.015	-0.016
			(0.025)	(0.024)
Log(assets)		0.018***	0.018***	0.018***
		(0.004)	(0.004)	(0.004)
Profitability		0.036	0.033	0.034
		(0.029)	(0.029)	(0.029)
13F ownership		0.084**	0.084**	0.083**
		(0.036)	(0.036)	(0.036)
Firm-proposal FE	Y	N	N	N
13F institution FE	Y	Y	Y	Y
Observations	71,323	71,323	71,257	71,257
R^2	0.372	0.366	0.366	0.366

Table IA.11: **Kayne Anderson Rudnick: Other persons reporting for this manager**

Other persons reporting for this manager	CIK	Fund name	SeriesID
Virtus Investment Trust	0000867297	Virtus KAR Health Sciences Fund	S000007977
		Virtus KAR Global Small-Cap Fund	S000007979
Virtus Opportunities Trust	0001005020	Virtus KAR International Small-Mid Cap Fund	S000038118
		Virtus KAR Emerging Markets Small-Cap Fund	S000042963
		Virtus KAR Developing Markets Fund	S000072168
Virtus Alternative Solutions Trust	0001589756	Virtus KAR Long/Short Equity Fund	S000063645
Virtus Variable Insurance Trust	0000792359	Virtus KAR Small-Cap Growth Series	S000001949
		Virtus KAR Small-Cap Value Series	S000001958
		Virtus KAR Capital Growth Series	S000001963
		Virtus KAR Equity Income Series	S000001964
Virtus Equity Trust	0000034273	Virtus KAR Global Quality Dividend Fund	S000001386
		Virtus KAR Small-Cap Growth Fund	S000021170
		Virtus KAR Small-Cap Core Fund	S000021172
		Virtus KAR Capital Growth Fund	S000021173
		Virtus KAR Equity Income Fund	S000021177
		Virtus KAR Mid-Cap Growth Fund	S000021180
		Virtus KAR Small-Cap Value Fund	S000021181
		Virtus KAR Mid-Cap Core Fund	S000025925
		Virtus KAR Small-Mid Cap Core Fund	S000061485
		Virtus KAR Small-Mid Cap Growth Fund	S000070232
		Virtus KAR Small-Mid Cap Value Fund	S000072656

Table IA.12: **State Street Corp.: List of other included managers**

Other Included Managers in 13F-HR	CIK	N-PX filing type	N-PX filing explanation
State Street Bank and Trust Company	0000093748	No N-PX report	–
SSGA Funds Management, Inc.	0001257442	Inst. manager voting report	–
State Street Global Advisors Limited	0001324602	Inst. manager voting report	–
State Street Global Advisors, Ltd.	0001324601	Inst. manager voting report	–
State Street Global Advisors, Australia, Limited	0001324595	Inst. manager voting report	–
State Street Global Advisors (Japan) Co., Ltd.	0001324600	Inst. manager voting report	–
State Street Global Advisors Singapore Limited	0001324599	Inst. manager voting report	–
State Street Global Advisors Asia Limited	0001324598	Inst. manager voting report	–
State Street Global Advisors Europe Limited	0001520010	Inst. manager voting report	–
State Street Global Advisors Trust Company	0001714343	Inst. manager voting report	–
State Street Saudi Arabia Financial Solutions Company	0001975354	Inst. manager notice report	Did not exercise voting power

Table IA.13: **Vanguard Group Inc.: Other persons reporting for this manager**

Other persons reporting for this manager	CIK	Series ID
Vanguard Investments Australia, Ltd.	0001550100	—
Vanguard Global Advisers, LLC	0001811242	—
Vanguard Fiduciary Trust Co	0000933478	—
Vanguard Russell 3000 Index Fund	—	S000030006
Vanguard Institutional Total Stock Market Index Fund	—	S000002855
Vanguard Materials Index Fund	—	S000004441
Vanguard Institutional Index Fund	—	S000002853
Vanguard Mega Cap Growth Index Fund	—	S000019700
Vanguard U.S. Momentum Factor ETF	—	S000061302
Vanguard Tax-Managed Capital Appreciation Fund	—	S000004384
Vanguard Total Stock Market Index Fund	—	S000002848
Vanguard Dividend Appreciation Index Fund	—	S000011322
Vanguard Russell 1000 Growth Index Fund	—	S000030002
Vanguard Tax-Managed Balanced Fund	—	S000004383
Vanguard ESG U.S. Stock ETF	—	S000063075
Vanguard Mega Cap Index Fund	—	S000019698
Vanguard S&P 500 Value Index Fund	—	S000030013
Vanguard Variable Insurance Fund - Equity Index Portfolio	—	S000004400
Vanguard Russell 1000 Value Index Fund	—	S000030001
Vanguard Balanced Index Fund	—	S000002560
Vanguard 500 Index Fund	—	S000002839
Vanguard Total World Stock Index Fund	—	S000022482
Vanguard High Dividend Yield Index Fund	—	S000014011
Vanguard Growth Index Fund	—	S000002842
Vanguard FTSE Social Index Fund	—	S000004440
Vanguard Large-Cap Index Fund	—	S000002843
Vanguard Russell 1000 Index Fund	—	S000030000
Vanguard S&P 500 Growth Index Fund	—	S000030012
Vanguard Extended Market Index Fund	—	S000002841
Vanguard Russell 2000 Value Index Fund	—	S000030004
Vanguard Russell 2000 Index Fund	—	S000030003
Vanguard Mid-Cap Growth Index Fund	—	S000012756
Vanguard Variable Insurance Fund - Mid-Cap Index Portfolio	—	S000004404
Vanguard Health Care Index Fund	—	S000004450
Vanguard Mid-Cap Index Fund	—	S000002844
Vanguard Tax-Managed Small-Cap Fund	—	S000004387
Vanguard Financials Index Fund	—	S000004449
Vanguard S&P Small-Cap 600 Value Index Fund	—	S000030019
Vanguard S&P Small-Cap 600 Index Fund	—	S000030017
Vanguard Strategic Small-Cap Equity Fund	—	S000012432
Vanguard Mid-Cap Value Index Fund	—	S000012757
Vanguard Value Index Fund	—	S000002840
Vanguard Strategic Equity Fund	—	S000002593
Vanguard U.S. Multifactor ETF	—	S000061310
Vanguard Consumer Discretionary Index Fund	—	S000004446
Vanguard U.S. Value Factor ETF	—	S000061305
Vanguard U.S. Quality Factor ETF	—	S000061304
Vanguard S&P Mid-Cap 400 Index Fund	—	S000030014
Vanguard Market Neutral Fund	—	S000019457
Vanguard S&P Mid-Cap 400 Value Index Fund	—	S000030015
Vanguard Small-Cap Index Fund	—	S000002845
Vanguard Small-Cap Value Index Fund	—	S000002847
Vanguard U.S. Multifactor Fund	—	S000061303
Vanguard Information Technology Index Fund	—	S000004452
Vanguard S&P Mid-Cap 400 Growth Index Fund	—	S000030016
Vanguard Russell 2000 Growth Index Fund	—	S000030005
Vanguard Industrials Index Fund	—	S000004451
Vanguard Variable Insurance Fund - Small Company Growth Portfolio	—	S000004394
Vanguard Explorer Fund	—	S000002578
Vanguard S&P Small-Cap 600 Growth Index Fund	—	S000030018
Vanguard FTSE All-World Ex-US Index Fund	—	S000015871
Vanguard European Stock Index Fund	—	S000005787
Vanguard International Dividend Appreciation Index Fund	—	S000051871
Vanguard ESG International Stock ETF	—	S000063074
Vanguard Developed Markets Index Fund	—	S000004386
Vanguard Total International Stock Index Fund	—	S000002932
Vanguard FTSE All-World Ex-US Small-Cap Index Fund	—	S000025074
Vanguard Small-Cap Growth Index Fund	—	S000002846
Vanguard Emerging Markets Stock Index Fund	—	S000005786
Vanguard Global Minimum Volatility Fund	—	S000043242
Vanguard Variable Insurance Fund - Real Estate Index Portfolio	—	S000004392
Vanguard Real Estate Index Fund	—	S000002924
Vanguard Real Estate II Index Fund	—	S000059086
Vanguard Consumer Staples Index Fund	—	S000004447
Vanguard Energy Index Fund	—	S000004448
Vanguard U.S. Minimum Volatility ETF	—	S000061301
Vanguard Communication Services Index Fund	—	S000004443
Vanguard International High Dividend Yield Index Fund	—	S000051872
Vanguard Pacific Stock Index Fund	—	S000005788
Vanguard Equity Income Fund	—	S000002579
Vanguard Mega Cap Value Index Fund	—	S000019699
Vanguard Variable Insurance Fund - Equity Income Portfolio	—	S000004399

Table IA.14: **BlackRock Inc.: List of other included managers**

Other included manager	CIK	N-PX filing type	Explanation
BlackRock Financial Management, Inc.	0001086363	Inst. manager voting report	–
FutureAdvisor, Inc.	0001556846	Did not file an N-PX	–
BlackRock Investment Management (Australia) Ltd	0001461626	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Asset Management Canada Ltd	0001050459	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock (Singapore) Ltd	0001559921	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Asset Mgmt. North Asia Ltd	0001579409	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Investment Management, LLC	0001305227	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Institutional Trust Company, N.A.	0000913414	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Japan Co. Ltd	0001085635	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Fund Managers Ltd	0001388402	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Investment Mgmt. (UK) Ltd	0001388401	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock (Netherlands) B.V.	0001388399	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock International Ltd	0001426459	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Asset Mgmt. Ireland Ltd	0001503309	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Advisors (UK) Ltd	0001034551	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Asset Mgmt. Deutschland AG	0001415064	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock (Luxembourg) S.A.	0001426606	Notice report	Reported by BlackRock Fin. Mgmt.
iShares (DE) I InvAG mit Teilgesellschaftsvermögen	0001512562	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Life Ltd	0001549649	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Fund Mgmt. Co. S.A.	0001559920	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Asset Mgmt. Schweiz AG	0001654470	Notice report	Reported by BlackRock Fin. Mgmt.
Aperio Group, LLC	0001364615	Notice report	Reported by BlackRock Fin. Mgmt.
BlackRock Investment Mgmt. (Taiwan) Ltd	0001512561	Notice report	Did not exercise voting power
BlackRock Brasil Gestora de Investimentos Ltd	0001579408	Notice report	Did not exercise voting power
BlackRock Capital Mgmt., Inc.	0001173486	Notice report	Did not exercise voting power
BlackRock Group Ltd	0001003283	Notice report	Did not exercise voting power
Tennenbaum Capital Partners, LLC	0001169553	Notice report	Did not exercise voting power
BlackRock Capital Investment Advisors, LLC	0001717705	Notice report	Did not exercise voting power
Global Energy & Power Infrastructure II Advisors, LLC	0001912613	Notice report	Did not exercise voting power
BlackRock Advisors LLC	0001086364	Combination report	–
BlackRock Fund Advisors	0001006249	Combination report	–

Table IA.15: **BlackRock Advisors LLC and BlackRock Fund Advisors: Other persons reporting for this manager**

Other included manager	CIK	Registered funds reporting for this manager (ICA number; Mutual fund CIK)
BlackRock Advisors LLC	0001086364	BlackRock Funds V (ICA 811-23339; CIK 0001738078); BlackRock Investment Quality Municipal Trust, Inc. (811-07354; 0000894242); BlackRock Liquidity Funds (811-02354; 0000097098); BlackRock Funds (811-05742; 0000844779); BlackRock Municipal Income Trust II (811-21126; 0001176194); BlackRock Limited Duration Income Trust (811-21349; 0001233681); BlackRock Floating Rate Income Trust (811-21566; 0001287480); BlackRock Allocation Target Shares (811-21457; 0001221845); BlackRock Long-Term Municipal Advantage Trust (811-21835; 0001343793); BlackRock Energy and Resources Trust (811-21656; 0001306550); BlackRock Municipal Income Trust (811-10339; 0001137393); BlackRock New York Municipal Income Trust (811-10337; 0001137390); BlackRock Virginia Municipal Bond Trust (811-21053; 0001169034); BlackRock Health Sciences Trust (811-21702; 0001314966); BlackRock Enhanced Global Dividend Trust (811-21729; 0001320375); BlackRock Enhanced Equity Dividend Trust (811-21784; 0001332283); BlackRock MuniYield Fund, Inc. (811-06414; 0000879361); BlackRock MuniYield Quality Fund III, Inc. (811-06540; 0000883412); BlackRock MuniYield Michigan Quality Fund, Inc. (811-07080; 0000890393); BlackRock MuniYield New York Quality Fund, Inc. (811-06500; 0000882150); BlackRock MuniYield Pennsylvania Quality Fund (811-07136; 0000891038); BlackRock Strategic Global Bond Fund, Inc. (811-05603; 0000835620); BlackRock Series Fund II, Inc. (811-23345; 0001738073); BlackRock Variable Series Funds II, Inc. (811-23346; 0001738072); BlackRock Multi-State Municipal Series Trust (811-04375; 0000774013); BlackRock Municipal Bond Fund, Inc. (811-02688; 0000225635); BlackRock Municipal Series Trust (811-04802; 0000799113); BlackRock Floating Rate Income Strategies Fund, Inc. (811-21413; 0001259708); BlackRock MuniHoldings Fund, Inc. (811-08081; 0001034665); BlackRock MuniHoldings New York Quality Fund, Inc. (811-08217; 0001038186); BlackRock MuniHoldings California Quality Fund, Inc. (811-08573; 0001051004); BlackRock MuniHoldings Quality Fund II, Inc. (811-09191; 0001071899); BlackRock Municipal Income Fund, Inc. (811-21348; 0001232860); BlackRock MuniVest Fund, Inc. (811-05611; 0000835948); BlackRock MuniVest Fund II, Inc. (811-07478; 0000897269); BlackRock Series Fund, Inc. (811-03091; 0000319108); BlackRock Capital Appreciation Fund, Inc. (811-06669; 0000887509); BlackRock Global Allocation Fund, Inc. (811-05576; 0000834237); BlackRock Advantage Global Fund, Inc. (811-07171; 0000922457); BlackRock Natural Resources Trust (811-04282; 0000766555); BlackRock Funds VII, Inc. (811-02661; 0000202741); BlackRock Variable Series Funds, Inc. (811-03290; 0000355916); BlackRock MuniHoldings New Jersey Quality Fund, Inc. (811-08621; 0001053988); BlackRock Financial Institutions Series Trust (811-03189; 0000353281); BlackRock Bond Fund, Inc. (811-02857; 0000276463); BlackRock Advantage SMID Cap Fund, Inc. (811-02809; 0000230382); BlackRock Large Cap Focus Value Fund, Inc. (811-02739; 0000216557); BlackRock Large Cap Series Funds, Inc. (811-09637; 0001097077); BlackRock Enhanced Capital and Income Fund, Inc. (811-21506; 0001278895); BlackRock Equity Dividend Fund (811-05178; 0000814507); BlackRock Index Funds, Inc. (811-07899; 0001026144); Quantitative Master Series LLC (811-07885; 0001025836); BlackRock Emerging Markets Fund, Inc. (811-05723; 0000849402); BlackRock Series, Inc. (811-08797; 0001062806); BlackRock EuroFund (811-04612; 0000790525); BlackRock Funds II (811-22061; 0001398078); BlackRock Mid-Cap Value Series, Inc. (811-07177; 0000918848); BlackRock Credit Strategies Fund (811-23380; 0001752019); BlackRock Funds IV (811-23341; 0001738074); BlackRock Resources & Commodities Strategy Trust (811-22501; 0001506289); BlackRock Multi-Sector Income Trust (811-22774; 0001562818); Master Investment Portfolio (811-08162; 0000915092); BlackRock Science and Technology Trust (811-22991; 0001616678); Managed Account Series (811-21763; 0001323737); BlackRock Multi-Sector Opportunities Trust (811-23285; 0001715468); BlackRock Debt Strategies Fund, Inc. (811-08603; 0001051003); BlackRock Multi-Sector Opportunities Trust II (811-23357; 0001741600); BlackRock Science and Technology Term Trust (811-23428; 0001768666); BlackRock Health Sciences Term Trust (811-23466; 0001785971); BlackRock Capital Allocation Term Trust (811-23564; 0001809541); BlackRock Innovation and Growth Term Trust (811-23625; 0001836057); BlackRock ESG Capital Allocation Term Trust (811-23701; 0001864843); Master Bond LLC (811-21434; 0001264926); BlackRock 2037 Municipal Target Term Trust (811-23621; 0001832871); BlackRock California Municipal Income Trust (811-10331; 0001137391); BlackRock MuniYield Quality Fund, Inc. (811-06660; 0000890196); Managed Account Series II (811-23340; 0001738079); BlackRock Unconstrained Equity Fund (811-21759; 0001324285); BlackRock Municipal 2030 Target Term Trust (811-22603; 0001528437); Master Investment Portfolio II (811-23343; 0001738077); BlackRock Income Trust, Inc. (811-05542; 0000832327); BlackRock MuniYield Quality Fund II, Inc. (811-06728; 0000887394); BlackRock Corporate High Yield Fund, Inc. (811-21318; 0001222401); BlackRock Sustainable Balanced Fund, Inc. (811-02405; 0000110055); BlackRock Large Cap Focus Growth Fund, Inc. (811-09651; 0001097293); BlackRock Funds VI (811-23344; 0001738080); BlackRock Utilities, Infrastructure & Power Opportunities Trust (811-22606; 0001528988); BlackRock MuniAssets Fund, Inc. (811-07642; 0000901243); BlackRock Alpha Strategies Fund (811-23626; 0001833936); BlackRock Private Investments Fund (811-23584; 0001816389); BlackRock Taxable Municipal Bond Trust (811-22426; 0001493683); BlackRock Municipal Income Quality Trust (811-21178; 0001181187); BlackRock California Municipal Series Trust (811-04264; 0000765199); BlackRock Core Bond Trust (811-10543; 0001160864); BlackRock Enhanced International Dividend Trust (811-22032; 0001393299); BlackRock Credit Allocation Income Trust (811-21972; 0001379384); BlackRock Enhanced Government Fund, Inc. (811-21793; 0001336050)
BlackRock Fund Advisors	0001006249	iShares, Inc. (ICA 811-09102; CIK 0000930667); Master Investment Portfolio (811-08162; 0000915092); iShares Trust (811-09729; 0001100663); BlackRock Funds III (811-07332; 0000893818); iShares U.S. ETF Trust (811-22649; 0001524513); BlackRock ETF Trust (811-23402; 0001761055); BlackRock Funds (811-05742; 0000844779); BlackRock ETF Trust II (811-23511; 0001804196)

Table IA.16: **BlackRock Inc.: List of other managers reporting for this manager**

Manager name	CIK	13F filing type
Nationwide Mutual Funds	0001048702	Unable to locate 13F filings
Nationwide Fund Advisors	0001097218	13F combination report
Nationwide Variable Insurance Trust	0000353905	Unable to locate 13F filings
RUSSELL FRANK CO/	0000721204	Has not filed a 13F filing since 2016
RUSSELL FRANK CO LTD	0001114426	Has not filed a 13F filing since 2016
RUSSELL FRANK CO /WA/	0000916649	Unable to locate 13F filings

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