

Ownership and Voting Authority: Institutional Investors and Proxy Voting^{*}

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Abstract

Institutional ownership is widely used to assess corporate governance influence, yet voting rights are often delegated through adviser-client relationships. We study how reported institutional ownership translates into realized voting by institutions and construct a measure of voting utilization, defined as the fraction of reported ownership that is actually voted by the institution. Voting utilization varies substantially across institutions and firms and is strongly related to advisers' stated proxy voting arrangements. Reported holdings of the largest institutional blockholders overstate the voting control they actually exercise, implying that effective voting power is more diffuse than ownership shares alone would suggest. Overall, the evidence shows that the governance consequences of institutional ownership depend not only on who holds shares, but also on how voting authority is contractually allocated and exercised.

Keywords: Institutional Investors; Proxy Voting; Corporate Governance.

JEL Codes: G23; G28; G34.

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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. This assumption overlooks a fundamental feature of modern asset management. Voting rights are exercised through proxy voting and are delegated through contracts between end investors and asset managers. Clients may delegate voting authority to intermediaries, retain it themselves, or adopt hybrid arrangements that vary across accounts. As a result, the extent to which institutional ownership translates into proxy voting power can differ substantially across institutions.

This paper documents the resulting wedge between institutional ownership and realized proxy voting outcomes. 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 a broad set of asset managers subject to Form 13F reporting, and how this varies across advisers and firms. We show that voting utilization exhibits substantial heterogeneity both across institutions and within institutions across portfolio companies. We interpret this heterogeneity through the lens of how voting authority is allocated in asset management relationships. Centralizing voting authority offers potential benefits from stewardship, but it also entails coordination costs, legal constraints, and agency concerns when mandates are heterogeneous. As a result, centralized voting may be efficient in some settings but costly or undesirable in others, leading institutions to adopt segmented or partial voting arrangements.

Our analysis brings together three regulatory disclosure regimes that allow us to observe both the intent and the realization of proxy voting authority. Form ADV disclosures provide detailed information on how investment advisers describe their voting arrangements with clients, including whether voting authority is accepted, retained by clients, or segmented across accounts. The SEC’s recent expansion of Form N-PX requires institutional investment managers subject to Form 13F reporting to disclose their realized proxy voting behavior, extending voting data far beyond the mutual fund and ETF sector studied in prior work. Combining these disclosures with portfolio holdings from Form 13F allows us to compare reported ownership with actual votes cast. We first study how adviser characteristics shape stated voting policies, then link these policies to realized voting behavior, and finally quantify voting utilization at both the institution and firm levels.

We begin by classifying investment advisers' stated proxy voting arrangements into five distinct policy categories based on their Form ADV disclosures. These range from advisers that do not accept voting authority at all, to advisers that retain a non-voting default while providing consultative support to clients, to advisers that exercise discretionary voting authority on clients' behalf. In addition, we identify advisers whose voting is explicitly directed by clients and advisers that adopt segmented arrangements in which voting authority differs across funds, accounts, or client types. This classification highlights that proxy voting authority is not allocated in a uniform way across institutions, but instead reflects a range of contractual and organizational arrangements through which advisers may centralize, decentralize, or partially delegate voting decisions.

We then examine the determinants of these voting policy choices. Adviser size, client structure, and organizational setting are the primary predictors of voting arrangements. Larger advisers are more likely to adopt structured voting policies rather than abstain from voting altogether, while advisers with larger numbers of clients are less likely to do so, consistent with greater coordination and delegation costs. Advisers managing pooled investment vehicles and advisers serving institutional clients are both more likely to adopt voting-type arrangements rather than non-voting policies, consistent with voting authority being more likely to be assigned and formalized in these settings. By contrast, a higher share of non-discretionary assets is associated with a lower likelihood of structured voting arrangements, suggesting that advisers step back from proxy voting when their authority is more limited. We also find that advisers with financial industry exposure are less likely to adopt some active voting arrangements, consistent with conflicts of interest or additional regulatory constraints affecting how voting authority is exercised.

We next link advisers' stated voting policies to realized voting utilization. Advisers that accept centralized voting authority vote a larger share of their reported ownership, while advisers with client-retained or segmented arrangements vote a smaller share. Because adviser characteristics strongly predict stated voting policies, and those policies in turn predict realized utilization, this pattern is consistent with delegation choices being an important source of the observed heterogeneity in realized voting.

We find that the ownership-voting wedge has important implications at the firm level. Votes cast by the largest institutional blockholders consistently fall short of their reported holdings, indicating that the ownership-voting wedge persists even among economically important investors. Effective voting power is therefore more diffuse than ownership shares alone would suggest. More broadly, firms differ in the fraction of their institutional ownership that is actually voted, and this variation is associated with aggregate turnout. Firms for which a

larger share of institutional holdings is translated into votes cast exhibit higher aggregate turnout, indicating that voting utilization among reporting institutions is informative about broader firm-level shareholder participation.

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 the view that greater delegation is associated with weaker support for incumbent management on pay. 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. 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.

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 realized proxy voting behavior for the broad universe of institutional investors subject to Form 13F reporting. Existing empirical work on proxy voting largely focuses on mutual funds and ETFs (e.g., Cai et al. (2009), Matvos and Ostrovsky (2010), Iliev and Lowry (2015)), reflecting historical data limitations, and on participation and turnout conditional on voting (Zachariadis et al. (2025)). By exploiting the SEC’s recent expansion of Form N-PX, we study realized proxy voting behavior for asset managers that collectively account for the majority of institutional equity ownership.

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 (Edmans and Holderness (2017), Dasgupta et al. (2021), Lewellen and Lewellen (2022), Heath et al. (2025), Zytnick (2026), Marini and Zingales (2026)). We show that reported ownership is an imperfect measure of voting rights exercised through proxy voting, and that the resulting ownership–control wedge reflects systematic delegation choices embedded in adviser–client relationships. In settings where voting authority is decentralized across client accounts rather than exercised centrally by the asset manager, institutional ownership may reflect multiple underlying decision makers rather than a single voting authority.

Third, the paper contributes to the growing literature on asset management and adviser–client contracting by interpreting the delegation 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 (2024), Brav et al. (2026), Gomtsian and Gosling (2026)). 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 the extent of decentralized corporate control implied by these asset management arrangements.

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

2 Institutional background

A central contribution of this paper is to link institutions' stated voting policies 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, Form ADV requires registered investment advisers to disclose whether and how they exercise voting authority over client securities, including whether and how voting authority is delegated to clients. These disclosures provide an *ex ante* statement of institutions' intended approach to proxy voting and apply to a broad set of asset managers that account for the majority of Form 13F filers.

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, Forms 13F and N-PORT require periodic disclosure of portfolio holdings and reported voting authority categories.

Taken together, these disclosure regimes allow us to move beyond the common assumption that institutional ownership maps directly into governance control. We begin by characterizing institutions' stated voting policies and then examine how reported ownership translates into realized voting outcomes. Comparing reported ownership with realized voting behavior allows us to quantify the resulting wedge between ownership and control. This section briefly reviews these disclosures and their evolution.

2.1 Form ADV and stated voting policies

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 its 2019 interpretation, the SEC emphasized 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,” and further recognized that advisers “provide a wide range of services” and “serve a large variety of clients.”¹

In a separate 2019 guidance regarding proxy voting responsibilities, the SEC stated that advisers’ voting obligations are tied to the authority they assume. Specifically, “in the context of voting, the specific obligations that flow from the investment adviser’s fiduciary duty depend upon the scope of voting authority assumed by the adviser.” In addition, “an investment adviser is not required to accept the authority to vote client securities,” and, if it does, it “may agree with its client [...] on the scope of voting arrangements, including the types of matters for which it will exercise proxy voting authority.”

Importantly, the SEC also recognizes that “[d]ifferences 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,” stating that advisers should consider “whether voting all of its clients’ 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.”² 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.

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 (IARD).³ Form ADV

¹ SEC, [Investment Advisers Act Release No. IA-5248](#), July 12, 2019.

² SEC, [Investment Advisers Act Release No. IA-5325](#); [Investment Company Act Release No. IC-33605](#), September 10, 2019.

³ 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 that are below this threshold typically register with state securities authorities, subject to certain exceptions (e.g., advisers

is a public disclosure document that provides information about advisers’ business practices, conflicts of interest, and disciplinary history. Advisers must file an annual updating amendment within 90 days after the end of their fiscal year and amend the filing promptly to reflect material changes.⁴

Of particular relevance for this paper, Form ADV requires advisers to disclose whether they accept authority to vote client securities and, if so, to 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 whether voting authority is retained by clients or delegated to another party.

Form ADV therefore provides a statement of an adviser’s intended approach to proxy voting. 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 institutional voting policies prior to observing actual voting behavior.⁵

2.2 Proxy voting disclosures

Registered investment companies (mutual funds, ETFs, and closed-end funds) have been required to disclose their proxy voting records on Form N-PX since 2003.⁶ These filings, filed annually by August 31, include each portfolio company proposal and the fund’s vote. 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

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 (Chapman and Cutler LLP (2024)).

⁴ Prior research has used Form ADV disclosures to study adviser misconduct (e.g., Dimmock and Gerken (2012); Egan et al. (2019)), investor trust and adviser flows (Gurun et al. (2018)), client relationships and adviser mobility (Gurun et al. (2021)), to link adviser client composition to mutual-fund performance (Beggs (2022)), and to identify hedge fund managers (e.g., Brunnermeier and Nagel (2004); Brown et al. (2008)).

⁵ 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. For example, banks, bank holding companies, and broker-dealers that exercise investment discretion over \$100 million or more in Section 13(f) securities are required to file Form 13F, even though they are excluded from the definition of “investment adviser” in Section 202(a)(11) of the Investment Advisers Act. In our sample, SEC-registered investment advisers filing Form ADV account for approximately 80% of Form 13F filers and about 76% of aggregate assets under management reported by 13F filers.

⁶ SEC, Securities Act Release No. 33-8188, January 31, 2003.

report on Form N-PX about their proxy votes. It was an attempt to improve on the quality and transparency of disclosure 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.⁷ Form N-PX filings for investment companies take two forms. A fund voting report is filed when the fund holds one or more securities it is entitled to vote and discloses its complete proxy voting record. A fund notice report is filed when the fund holds no securities it is entitled to vote and therefore has no proxy votes to report.

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. Managers must comply with the same Form N-PX standards as required of investment companies (categorization, shares voted/instructed, XML).⁸ 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–June 30, 2024.⁹

Under the amended regime, Form N-PX distinguishes among three report types for institutional managers. An institutional manager voting report is filed when the manager discloses all proxy votes it exercised during the reporting period. An institutional manager notice report is filed when no proxy votes are reported. In this case, the manager indicates whether all votes are reported by other reporting persons, whether the manager did not exercise voting power over any reportable matters, or whether the manager has a disclosed policy of not voting and did not vote during the period. An institutional manager combination report is filed when a portion of the manager’s proxy votes is disclosed in the report and the remaining votes are reported by other reporting persons.

2.3 Portfolio holdings disclosures

The SEC requires periodic ownership filings on institutional holdings. Institutional investment managers with more than \$100 million in qualifying securities must file quarterly Form 13F reports, disclosing their equity positions at the end of each calendar quarter.

Form 13F filings take three forms. A Form 13F-HR (holdings report) is filed when a reporting

⁷ The SEC’s 2022 rulemaking included amendments to funds’ reporting of proxy voting matters and categories, making the information easier to collect and analyze. It 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 amendments required funds to file their reports using an XML structured data language and also standardized the order of disclosure requirements on Form N-PX and required that each fund, including each series of a multi-series trust, present its complete voting record separately.

⁸ SEC, [Securities Act Release No. 33-11131, Nov. 2, 2022](#).

⁹ SEC Press Release 2022-198.

manager discloses all of its own reportable holdings. A Form 13F-NT (notice report) is filed when none of the manager’s holdings are disclosed in that report because they are reported by other affiliated managers. A Form 13F combination report is filed when a portion of the manager’s holdings is disclosed directly and the remainder are reported by other reporting managers.

Form 13F-HR 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 sole, shared, and none, 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. Registered investment companies are required to report detailed portfolio holdings on Form N-PORT. Beginning in 2019, funds report the number of shares held in each portfolio company via Form N-PORT on a quarterly basis, along with information on assets and liabilities, risk metrics, securities lending, derivatives transactions, and other characteristics. Unlike Form 13F, Form N-PORT does not provide a “notice” filing option. Every registered fund must submit a complete portfolio holdings report each quarter.

We combine these ownership reports with proxy voting disclosures from Form N-PX to construct institution-level measures of ownership and control, allowing us, for the first time, to compare reported ownership to actual votes on a large scale. This comparison, which is the focus of the paper, has not been possible to date.

3 Data and sample overview

We access several public sources of data. We obtain record dates and proposal-level data from the ISS Voting Analytics database. For securities data, we use data from the Center for Research in Security Prices (CRSP). We restrict the analyses below to securities with CRSP common share codes 10 and 11, excluding ADRs, preferred stock, closed-end funds, REITs, trusts, ETFs, options, warrants, and convertibles. Data on registered investment advisers’ stated voting policies is obtained from Form ADV. The rest of this section describes the information we gather from the ADV filings as well as the ownership and voting data.

3.1 Registered investment advisers’ voting policies

Advisers’ stated proxy voting policies are identified from Form ADV filings. Filings for registered investment advisers and exempt reporting advisers during the period 2022–2024

are downloaded from the SEC’s Investment Adviser Registration Depository, and the sample is restricted to filings made in 2023. Using the disclosures in Item 17, proxy voting policies are classified into a small set of economically meaningful governance categories using a procedure based on the Google Gemini large language model. To develop the classification scheme, an initial random sample of disclosures is used to identify a parsimonious set of mutually exclusive policy categories, and the resulting classifications are reviewed to refine the category definitions. The model is then used to classify the full sample, reporting both a confidence score and a textual justification for each assignment.¹⁰

The final classification yields five proxy voting policy categories:

1. *Strict no-voting policy*: the adviser has a stated policy of not voting client securities. Advisers in this category vary in whether non-voting reflects a deliberate firm-wide choice or is driven by the asset class (e.g., fixed income or private equity), and in the mechanics of proxy handling, including whether the adviser or the custodian forwards materials to clients.
2. *Consultative non-voting policy*: the adviser retains the “non-voting” default but reduces clients’ information acquisition costs by offering ad-hoc advice. The extent of support differs across advisers, ranging from responding to specific client inquiries to providing research and voting recommendations, as well as in the proactivity of communication and whether internal voting guidelines are shared with clients.
3. *Discretionary stewardship policy*: the adviser accepts authority to vote client securities. 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 advisors, whether used as research inputs or as primary decision-makers.
4. *Client-directed voting policy*: the adviser’s discretion is explicitly subject to active client instruction. Advisers differ in how this interaction is structured, including whether instructions are standing or proposal-specific, the default action when instructions are not provided, and the extent to which clients can override votes.
5. *Segmented voting policy*: voting rights are allocated differently depending on the legal structure of the capital pool. This segmentation can arise along several dimensions, such as account type (e.g., pooled funds vs. separate accounts, domestic vs. international securities), and may involve differing allocations of authority across segments,

¹⁰ See Appendix A.1.3 for details on the classification of ADV Item 17 voting disclosures.

including delegation to sub-advisers or affiliated entities.

Table 1 presents representative excerpts for each category.

[Insert Table 1 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.¹¹ We therefore implement the classification in two steps. First, we classify each Item 17 disclosure into one of the five 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 2 summarizes the distribution of stated voting policies in the Form ADV sample. We find substantial heterogeneity in advisers’ proxy voting practices. The largest group of advisers (27.1%) reports accepting authority to vote client securities. Nearly as many advisers either do not vote client securities (23.4%) or retain a non-voting default while offering consultative advice to clients (24.8%). Another 14.8% of advisers report segmented voting arrangements, under which voting authority varies across accounts or capital pools, while 6.8% report voting subject to explicit client instruction. The table also reveals substantial differences in adviser size across policy categories. Advisers with segmented voting arrangements are the largest, with average regulatory assets under management of \$19 billion, followed by advisers that accept voting authority (\$10.65 billion). In contrast, advisers that maintain consultative non-voting policies tend to be substantially smaller, on average.

[Insert Table 2 here.]

A small fraction of advisers in Table 2 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. Second,

¹¹SEC 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>.

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.¹²

A common feature that emerges across the voting policy categories is the use of proxy advisory firms. Advisers in multiple categories reference firms such as Institutional Shareholder Services (ISS) and Glass Lewis, though the role these providers play varies substantially, from research support to guideline formation to full delegation of voting decisions. Because proxy adviser use spans categories rather than defining them, we examine it separately.

To do so, we use the Google Gemini large language model to classify the Item 17 disclosures. We provide the full text of each disclosure and prompt the model to identify and categorize references to third-party proxy advisers based on the nature of their role. The resulting classification first identifies whether advisers reference proxy advisers in any capacity and then distinguishes between four non-mutually exclusive forms of reliance: (i) use of proxy advisers as research 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. Table 3 summarizes the prevalence and forms of proxy adviser reliance within each voting policy category.

[Insert Table 3 here.]

Proxy adviser use is broadly similar across voting policy categories. Approximately 20–24% of advisers reference proxy advisers in some capacity, with comparable rates across advisers that accept voting authority, those subject to client instruction, and those with segmented voting arrangements. This pattern indicates that proxy adviser use is not concentrated in any particular governance regime.

The classification further highlights that proxy advisers play multiple, economically distinct roles. In category (i), they serve as information providers, supplying research that informs voting decisions while leaving full discretion with the adviser. This is the most common form of reliance, with approximately 11–12% of advisers in each category reporting such use. In category (ii), advisers incorporate proxy adviser voting guidelines into their internal

¹² For exempt reporting advisers see [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](#), and for registered investment companies and business development companies see [Rule 204-3\(c\)\(1\)\(i\)](#). Appendix A.1 provides additional details on Form ADV and describes the procedures used to construct advisers' characteristics.

policies, embedding externally defined rules into their decision-making process, though this form of reliance is less prevalent. Category (iii) captures a form of conditional delegation, where advisers follow proxy adviser recommendations by default but retain the ability to override them in specific cases (roughly 6–7%). Finally, category (iv) reflects administrative outsourcing, in which advisers retain control over voting decisions but delegate the operational execution of votes to third-party platforms (about 13–14%). Taken together, these distinctions clarify that proxy adviser involvement need not imply a loss of control, but instead spans a spectrum from informational support to partial delegation and operational outsourcing.

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. Since 2019, mutual funds have been required to report the number of shares held in each portfolio stock on a quarterly basis. We collect all N-PORT filings of U.S. equity funds from the SEC’s EDGAR system. Equity funds are identified in the CRSP Mutual Fund database with an objective code beginning with “E.” We link CRSP fund identifiers to the N-PORT filings through the series CIK of each fund. For positions with missing or incorrect CUSIPs, we identify the correct CUSIPs based on the stock names.

3.2.2 Proxy voting disclosures

We obtain mutual fund and ETF proxy voting records and the number of shares on loan from Form N-PX filings for votes cast during the period from July 1, 2023, through June 30, 2024.

For each fund, we download either its fund voting report (in text format) or its fund notice report. If the fund files the former, we extract information on the company name, CUSIP, meeting date, proposal description, number of shares voted, number of shares on loan, and the vote. All of our sample funds (whose votes we incorporate into certain 13F filers) file fund voting reports in fiscal year 2024. For positions with missing or incorrect CUSIPs, we identify the correct CUSIPs based on the stock names.

We collapse the voting data to the fund-meeting level and merge with fund ownership information using CUSIP and record date. Therefore, for each fund-meeting pair, we obtain the number of shares held as of the quarter end immediately before and after the 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-HR filings via EDGAR. Each 13F filer also lists any “other investment managers” on whose behalf the report is filed, providing their names and other identifiers. For managers with missing CIKs, we identify them by searching EDGAR. In addition to 13F-HR holdings reports we identify all managers that file 13F-NT notice reports and those that file 13F combination reports. As described in Section 2, notice and combination reports occur when a manager delegates reporting to another filer, or splits reporting responsibility with another manager.

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. As described in Section 2.2, managers may file a voting report if they disclose all proxy votes, a combination report if reporting responsibility is shared with another filer, or a notice report. The latter report is filed if no proxy votes are reported because all votes are reported by other reporting persons, the manager did not exercise voting power over any reportable matters, or the manager has a disclosed policy of not voting and did not vote during the period.

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. Appendix A.2 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.

Table 4, Panel A, summarizes the breakdown of institutional managers by N-PX filing type in our sample. Specifically, we report the universe of 9,362 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 7,094 13F-HR filers, 39.5% of whom disclose proxy votes through N-PX voting reports. Another 2,642 managers (37.2% of the 13F-HR filers) submit N-PX notice reports, of which 60 state that all votes are reported by other reporting persons (mostly entities managing multiple mutual funds or ETFs), 465 do not exercise voting power, and 2,117 have a policy of not voting. In addition, 1.3% of all 13F-HR filers submit N-PX combination reports indicating that a portion of their votes is reported by other reporting persons. Finally, 1,559 managers (22.0% of the total) do not file any N-PX report, most of whom appear to be obligated to file (i.e., they are not new 13F filers that have begun filing in 2024).

[Insert Table 4 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 4, Panel A. For combination filers, the distribution across categories is generally similar to that of 13F-HR filers, except for a much lower percentage disclosing a policy of not voting (16.1% vs. 29.8%) and a much higher percentage filing N-PX combination reports (14.0% vs. 1.3%). For 13F-NT filers, the proportions filing regular N-PX 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 do not vote, and who do not file an N-PX are much higher.

Table 4, Panel B, reports statistics for the integrated sample of 13F filers who disclose 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 7,321 institutional managers, of whom 41.7% disclose valid proxy votes, 6.7% do not vote, and 29.6% have a policy of not voting, with the remainder not filing an N-PX.

3.4 Firm-level sample coverage

As noted earlier in this section, we restrict our analysis to securities with CRSP common share codes 10 and 11. Table 5 reports the number of unique firms by quarter in our sample.

In each quarter, we begin with approximately 4,000 CRSP firms with common share codes 10 and 11, reflecting a relatively stable institutional investment universe. We then restrict the sample to firms whose annual meeting record dates fall within the same quarter, based on record-date information from ISS Voting Analytics. Because ISS does not cover the full universe of publicly listed U.S. firms, this step yields 3,827 firms. As expected, most record dates occur in the first half of 2024, corresponding to the 2024 proxy season. Finally, we further restrict the sample to firms with say-on-pay votes, which are subject to mandatory disclosure under Form N-PX. Our final sample consists of 2,875 unique firms that held say-on-pay votes during the July 2023–June 2024 period.

[Insert Table 5 here.]

4 Advisers’ choice of voting policies

As documented in Section 3.1, investment advisers vary in whether and how they exercise proxy voting authority on behalf of their clients. This section studies advisers’ stated proxy voting policies as disclosed in Form ADV Item 17. We first examine how these policies vary with advisers’ business models and contractual arrangements, focusing on adviser characteristics that proxy for scale, client composition, and organizational constraints. We view advisers’ proxy voting policies as equilibrium outcomes of contracting between end investors and asset managers. Delegation of voting authority is itself a contractual choice since clients may delegate governance to advisers, retain voting authority, or adopt hybrid arrangements that vary across accounts. Observed voting policies therefore reflect the feasibility of centralized stewardship given an adviser’s client base and legal structure. We then examine whether advisers’ stated voting policies are reflected in how they participate in the Form N-PX proxy voting disclosure regime.

4.1 Adviser characteristics and stated voting policies

To examine how advisers’ stated proxy voting policies vary with their organizational and contractual characteristics, Table 6 reports a multinomial logit specification that relates each policy category to adviser characteristics from Form ADV, with “does not vote” as the omitted category. Panel A measures client composition using indicator variables for whether the adviser serves institutional end clients or advises pooled investment vehicles. Panel B replaces these indicators with continuous measures capturing the percentage of regulatory AUM attributable to institutional clients and pooled vehicles. Comparing the two panels allows us to distinguish between the extensive margin of client composition, that is, whether

an adviser serves a given client type, and the intensive margin, that is, the share of assets associated with that client type.

[Insert Table 6 here.]

The explanatory variables are constructed from Form ADV, as described in Appendix A.1.2. 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. We also include the logarithm of the number of clients as a proxy for organizational complexity. Advisers with zero or missing values for AUM or clients are excluded from the analysis. 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 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 heterogeneity in client structure, Panel A includes indicator variables for whether an adviser serves institutional end clients and whether it advises pooled investment vehicles. These indicators distinguish advisory relationships in which voting rights are contractually retained by end investors from those in which voting authority is legally centralized at the level of a pooled vehicle. When advising institutional end clients such as pension funds, endowments, or insurance companies, voting authority is often retained by the client or exercised subject to explicit instruction. In contrast, advisers managing pooled investment vehicles such as mutual funds, ETFs, or private funds typically exercise centralized voting authority as part of portfolio management.

Because many advisers simultaneously manage both institutional mandates and pooled vehicles, these indicators are not mutually exclusive and allow for segmented voting arrangements within the same advisory firm. This distinction is important for understanding stated voting policies. Advisers with institutional clients face greater contractual and coordination constraints on unilateral voting, whereas advisers managing pooled vehicles internalize voting decisions and are therefore more likely to adopt active proxy voting policies. Advisers that report serving only individual or high-net-worth individual clients have both indicators equal to zero and form the omitted reference group.

Panel B replaces these indicator variables with continuous measures capturing the percentage of regulatory AUM attributable to institutional clients and pooled vehicles, respectively. This specification allows us to assess whether the intensity of exposure to each client type predicts voting policy choices. Finally, we include an indicator for financial industry exposure, which

equals one if the adviser reports being engaged in, or affiliated with, other financial industry activities such as broker-dealers or banking institutions. This variable captures potential conflicts of interest and additional regulatory constraints that may affect advisers' incentives or ability to exercise proxy voting authority.

We find that larger advisers are substantially more likely to adopt any structured voting arrangement rather than abstain from voting. Among advisers with similar capital scale, greater organizational scale proxied by a larger number of clients is associated with a lower likelihood of adopting any structured voting policy relative to complete abstention from voting. This pattern suggests that when coordination and delegation costs become sufficiently high due to greater client heterogeneity, advisers are more likely to step back from proxy voting altogether rather than formalize centralized or segmented voting arrangements.

Client composition plays a central role in explaining advisers' voting policy choices. In Panel A, the indicator for serving institutional end clients is positively associated with structured voting arrangements relative to the non-voting baseline. Advisers that serve institutional clients are significantly more likely to accept authority to vote, to report voting subject to client instruction, and to adopt segmented voting arrangements. The pooled-vehicle indicator displays a similarly strong pattern. Advisers managing pooled investment vehicles are substantially more likely to accept voting authority and to adopt structured voting arrangements.

The negative coefficient on share of non-discretionary AUM indicates that advisers with a greater share of non-discretionary mandates are less likely to adopt structured voting arrangements and instead are more likely to fall into the non-voting category. This pattern is consistent with advisers stepping back from proxy voting when their authority is limited, rather than implementing client-directed or segmented voting frameworks. We also find that advisers with financial industry exposure are less likely to adopt some active voting arrangements. One interpretation is that affiliations with broker-dealers, banks, or other financial institutions introduce conflicts of interest or additional regulatory constraints that make direct exercise of voting authority less feasible.

Panel B shows that these relationships extend along the intensive margin. A higher percentage of AUM attributable to institutional clients is associated with a greater likelihood of accepting authority to vote and of adopting client-directed or segmented voting arrangements. Similarly, a larger share of AUM in pooled vehicles is strongly associated with centralized voting policies. Because the client-type variables in Panel B are expressed as AUM shares that sum to one, increases in institutional or pooled exposure necessarily come

at the expense of the residual client category, retail and high-net-worth accounts. The Panel B coefficients therefore capture how reallocating assets away from retail mandates toward institutional or pooled mandates is associated with differences in voting policy. Taken together, the evidence indicates that both the presence of institutional or pooled mandates and the intensity of exposure to those mandates, as well as the scope of advisers’ discretion, are strongly associated with advisers’ voting policy choices.

4.2 Do stated voting policies map into N-PX reporting?

We next examine whether advisers’ stated voting policies have operational content by studying how advisers utilize the Form N-PX proxy voting disclosure regime. Form N-PX distinguishes between advisers that report proxy votes directly, advisers that delegate reporting to other entities, and advisers that disclose a policy of not voting. Table 7 relates advisers’ stated proxy voting policies from Form ADV Item 17 to their realized Form N-PX filing outcomes. The table reports row-normalized percentages, so that each row shows how advisers within a given ADV voting policy category distribute across N-PX reporting outcomes.¹³

[Insert Table 7 here.]

We find a strong correspondence between stated voting policies and N-PX filing behavior. Advisers that explicitly report a policy of not voting client securities overwhelmingly file N-PX notice reports disclosing a policy of not voting, accounting for nearly 60% of advisers in this category. An additional share 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 advisers’ stated abstention from voting is largely reflected in realized non-participation in proxy voting disclosures.

By contrast, advisers that accept authority to vote client securities are far more likely to file N-PX voting reports. More than 60% of advisers in this category report proxy votes directly, with relatively small shares filing notice reports or combination reports. Advisers whose voting authority is subject to client instruction exhibit a similar pattern, though with modestly higher rates of combination filings, consistent with partial delegation or conditional voting authority.

Advisers with segmented voting arrangements display substantially more heterogeneous N-PX filing outcomes, including higher and more evenly split rates of notice filings and non-

¹³ We exclude 351 advisers whose parent institutions own multiple investment advisory firms. See Appendix A.1.4. The sample size in Table 7 is slightly larger than in Table 6 because advisers with zero assets under management or zero employees were excluded from the regressions in Table 6.

filing, consistent with variation in voting authority across accounts or capital pools within the same advisory firm.

Overall, Table 7 shows that Form ADV voting disclosures have substantial operational content as advisers’ stated proxy voting policies strongly predict how they engage with the Form N-PX reporting regime. While N-PX filing choices reveal whether institutions exercise and report voting authority, they do not reveal how much of reported ownership translates into voting control at the record date. We turn to this question next.

5 From ownership to voting control

This section examines how institutional ownership translates into realized voting control and explores the implications of this mapping for firm-level governance and incentives. We begin at the institution-company level by documenting wedges between reported ownership and record-date voting. We then aggregate these wedges to the firm level to study systematic variation in voting delegation across companies.

5.1 Investor-level ownership–control wedges

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 the ownership–control wedge for the institution–company pair (i, j) as the ratio of reported ownership that is actually voted at the record date:

$$\delta_{ij} \equiv \frac{V_{ij}}{O_{ij}}. \quad (1)$$

This ratio measures the effective conversion of reported ownership into voting control. A value of $\delta_{ij} = 1$ indicates full alignment between reported ownership and voting control at the record date; $\delta_{ij} < 1$ indicates incomplete transmission of ownership into voting power; and $\delta_{ij} > 1$ occurs when an institution votes more shares than it reports as owned, for instance through pre-record-date borrowing or voting rights retained in client accounts outside its 13F discretion.¹⁴

¹⁴ The SEC’s new Form N-PX regime requires Form 13F filers to report all proxy votes they exercised on say-

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 generating a wedge 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 confirm that inter-quarter trading cannot explain the systematic patterns in δ_{ij} documented below.

For intuition, Figure 1 illustrates the mechanisms underlying the ownership–control wedge. The figure decomposes δ_{ij} into the fraction of reported ownership that is voted, the fraction that is not voted because voting authority is retained by clients, and the fraction that is unavailable due to securities lending at the record date, as well as cases in which institutions vote more shares than they report owning. Appendix B provides the formal decomposition and institution-level examples that underlie the figure.

[Insert Figure 1 here.]

We next move from meeting-level wedges to an institution-level characterization of voting utilization. To summarize how reported ownership translates into realized control across an institution’s portfolio, we study both the average ownership–control wedge and its dispersion across meetings. These statistics provide a reduced-form description of institutional voting behavior and allow us to document systematic variation across institution types, lending activity, and reporting policies.

An institution’s mean and dispersion of the ownership–control wedge are:

$$\begin{aligned}\bar{\delta}_i &\equiv \frac{1}{N_i} \sum_{j=1}^{N_i} \delta_{ij}, \\ \sigma_{\delta,i} &\equiv \sqrt{\frac{1}{N_i} \sum_{j=1}^{N_i} (\delta_{ij} - \bar{\delta}_i)^2}\end{aligned}\tag{2}$$

on-pay matters, even if the relevant securities are not listed on their Form 13F. Lynn et al. (2024) emphasize that the “filing requirement is not limited to those securities that are listed on the covered manager’s Form 13F; it applies to any security of a company over which it exercised voting power on a say-on-pay matter presented under Section 14A.” They further note that under the new regime, the “covered manager will have no reporting obligation with respect to a voting decision that is entirely determined by its client or another party.”

where N_i denotes the number of portfolio companies with observable record-date votes for institution i . These two statistics, $(\bar{\delta}_i, \sigma_{\delta,i})$, provide a reduced-form description of each institution’s voting style. Institutions with low $\bar{\delta}_i$ and low dispersion exhibit uniform under-control, systematically voting fewer shares than they report owning. Those with $\bar{\delta}_i$ near one and low dispersion display full alignment between ownership and control. Institutions with similar means but high $\sigma_{\delta,i}$ show selective control, applying voting authority unevenly across firms. This heterogeneity reflects differences in how voting authority is allocated across investment mandates. For example, when some separate accounts retain voting authority while others delegate it, so that $(\bar{\delta}_i, \sigma_{\delta,i})$ summarize the allocation of control across an institution’s portfolio.

Table 8 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 ownership–control wedges. When the shares-voted field is missing, we assign a value of zero only if (i) the adviser has voted on other portfolio companies and (ii) the adviser holds shares in the company at the quarter ends immediately before and after the record date. The sample described in Table 8 therefore excludes advisers 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 advisers allows Table 8 to characterize the distribution of voting utilization among active voting advisers.

[Insert Table 8 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 ownership–control wedge statistics.¹⁵

We find that the ownership–control wedge is economically large and pervasive across institutional investors. On average, institutions vote substantially less than their reported ownership, with the mean (median) value of $\bar{\delta}_i$ equal to 0.77 (0.82). 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

¹⁵ We apply winsorization at the observation level as follows. All ownership–control wedge 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.

ownership and control. This under-voting is not concentrated among small advisers as the average ownership–control wedge is of similar magnitude across quintiles of institutional size (Panel D). 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 uniformly abstaining or voting fully. This pattern is consistent with segmented exercise of voting authority across investment mandates.

Importantly, the economically large ownership–control wedge and its heterogeneity are not due to trading from the beginning of the quarter ahead of the record date. We find similar evidence when restricting attention to meetings with proximate record dates (Panel B) and to institution–company pairs with minimal quarter-to-quarter ownership changes (Panel C), indicating that timing mismatches or trading around the record date cannot account for the observed wedges. Securities lending contributes a relatively small fraction to voting leakage as the average fraction of shares on loan at the record date is modest relative to the magnitude of the ownership–control wedge.

Taken together, the evidence indicates that realized voting control differs markedly from reported ownership for most institutions and that this divergence reflects persistent differences in how voting authority is exercised rather than transitory frictions.

We next examine how realized voting utilization varies across advisers’ stated proxy voting policies. As discussed in Section 4, Form ADV Item 17 disclosures capture advisers’ intended approach to proxy voting and reflect contractual arrangements with clients. Table 9 relates adviser-level voting utilization to stated voting policy categories. In contrast to Table 8, we include in the sample advisers that file a Form N-PX notice explicitly stating that they do not vote and that hold shares at the quarter ends immediately before and after the record date. For these advisers, shares voted are set to zero. The expanded sample therefore captures explicit non-voting policies within the utilization framework. The table reports regressions of $\bar{\delta}_i$ and $\sigma_{\delta,i}$ on indicator variables for voting policy types, with advisers that do not vote serving as the omitted category.

[Insert Table 9 here.]

We find that advisers’ stated proxy voting policies are strongly related to realized voting utilization. Relative to advisers that do not vote, advisers that accept authority to vote exhibit substantially higher average utilization, voting roughly 70 percentage points more of their reported ownership on average. Advisers whose voting is subject to client instruction exhibit similarly high levels of utilization, while advisers with voting rights segmented across capital pools also vote a significantly larger fraction of their ownership, though at lower levels

than other voting regimes.

Differences across voting policies are also reflected in the dispersion of utilization. All voting policies are associated with significantly greater within-adviser dispersion relative to non-voting advisers. Centralized voting exhibits the largest increase in dispersion, followed by client-directed arrangements, while segmented voting is associated with a smaller, although still economically meaningful, increase. These results indicate that voting policies shape both the level of realized voting and the heterogeneity of voting authority across portfolio companies.

While institution-level wedges reveal how voting authority varies across institutions, they do not directly capture how much voting control is exercised at the firm level. We therefore next aggregate voting and ownership across all institutional investors of a firm to study firm-level voting leakage and its relationship to firm characteristics.

5.2 Firm-level voting utilization and say-on-pay outcomes

We next study voting delegation at the firm level by aggregating ownership–control wedges 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

$$U_j \equiv \sum_{i \in \mathcal{I}_j} \omega_{ij} \delta_{ij} = \frac{\sum_{i \in \mathcal{I}_j} V_{ij}}{\sum_{i \in \mathcal{I}_j} O_{ij}}, \quad (3)$$

where $\omega_{ij} = O_{ij} / \sum_{k \in \mathcal{I}_j} O_{kj}$ are ownership weights and $\delta_{ij} = V_{ij} / O_{ij}$ is the institution–company ownership–control wedge defined in Section 5.1. Thus, U_j measures the fraction of reported 13F institutional ownership in firm j that is exercised through votes at the record date. Lower values of U_j indicate that a larger share of institutional ownership is held through arrangements in which voting authority is not exercised by the reporting institution.

To illustrate the mapping from ownership to realized voting, Figure 2 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 (3), respectively, and their divergence reflects firm-level voting leakage captured by U_j .

[Insert Figure 2 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 investors 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 10 largest blockholders. In other words, effective voting power is more diffuse than reported ownership would suggest.

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 cumulative voting curve to roughly 20 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 turnout and say-on-pay outcomes. A priori, the relation between firm-level 13F voting utilization and aggregate turnout is ambiguous. If a larger fraction of reported 13F ownership is voted by reporting institutions, aggregate participation may rise because more institutional shares are cast at the meeting. However, lower utilization by reporting institutions need not reduce aggregate turnout if voting authority is retained by underlying clients or if other non-13F shareholders offset lower participation by 13F institutions. The turnout regression therefore asks whether variation in voting utilization among reporting institutions is informative about broader firm-level shareholder participation.

The relation between firm-level voting utilization and say-on-pay voting outcomes is also unclear ex ante. If lower utilization reflects greater delegation of voting authority away from reporting 13F institutions and toward underlying clients, then higher utilization corresponds to a more centralized exercise of voting authority by institutional investors. To the extent that these institutions are more likely than underlying clients to support management on say-on-pay proposals, firms with higher utilization should exhibit higher support rates and fewer close votes. One possible mechanism is that centralized institutional voters face stronger incentives to maintain cooperative relationships with portfolio firms or to avoid conflict

with management, whereas direct voting by underlying clients may produce less support for management. Under this interpretation we ask whether the degree of delegation embedded in institutional voting arrangements is correlated with the tendency to support management.

The unit of observation is firm j , with each firm contributing one observation corresponding to its annual meeting. We estimate the following cross-sectional specification:

$$Y_j = \alpha + \beta U_j + X_j' \Gamma + \tau_q + \varepsilon_j, \quad (4)$$

where Y_j denotes firm-level say-on-pay vote outcomes, including turnout, proposal passage, support rate and support margin, and an indicator for whether a vote is close. U_j is firm-level institutional voting utilization, defined as in Equation (3). 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 the dependent variables are defined at the firm level and include votes from all shareholders, the coefficient β captures the association between institutional voting utilization and aggregate say-on-pay outcomes.

As shown in Table 10, Panel A, firm-level voting utilization is positively associated with both participation and say-on-pay outcomes. A one-standard-deviation increase in 13F voting utilization is associated with a 3.3 percentage point increase in turnout and a 0.74 percentage point decrease in the occurrence of close votes, where a close vote is defined as one in which the support rate is within 5% of the passing threshold. Given that average turnout and the occurrence of close votes are approximately 74% and 2.8%, respectively, these effects are economically meaningful. The turnout result indicates that variation in voting utilization among reporting institutions is informative about broader firm-level shareholder participation. The voting-outcome results are consistent with the interpretation that lower delegation, and hence more centralized institutional voting, is associated with greater support for management on say-on-pay proposals, potentially reflecting relationship considerations such as business ties with portfolio companies (Davis and Kim (2007); Cvijanović et al. (2016)).

[Insert Table 10 here.]

As noted above, firm-level outcomes include participation and votes from all shareholders, whereas voting utilization is measured only for 13F institutions. We therefore interpret these results as reflecting firm-level associations rather than a causal effect of institutional voting behavior. To more tightly link individual institutions' ownership-control wedges to their support for say-on-pay votes, we next examine how the conversion of ownership into exercised voting power relates to say-on-pay voting outcomes at the company-institution level. The unit of observation is an adviser i voting on firm j 's say-on-pay proposal. We

estimate the following specification:

$$Support_{ij} = \alpha_i + \gamma_j + \beta_1 \delta_{ij} + \beta_2 \phi_{ij} + \varepsilon_{ij}, \quad (5)$$

where $Support_{ij}$ equals one if institution i votes in favor of firm j 's say-on-pay proposal, and zero otherwise. For institutions that split their votes, we compute a weighted vote using the number of votes cast. The specification includes institution fixed effects (α_i) and meeting fixed effects (γ_j). The key explanatory variable, δ_{ij} , measures the extent to which reported ownership is converted into realized voting and is defined in Equation (1). We also include a measure of the economic importance of the position within the institution's portfolio, $\phi_{ij} = O_{ij} / \sum_k O_{ik}$, which captures the portfolio weight of firm j for institution i .

As shown in Table 10, Panel B, we find a positive relationship between an institution's ownership-control wedge and its support for say-on-pay proposals. A one-standard-deviation increase in the ownership-control wedge is associated with a 4.4 percentage point increase in support for say-on-pay proposals. This positive relation is estimated with adviser and meeting fixed effects and is therefore consistent with the idea that, holding constant both the institution's average voting tendency and firm-level meeting characteristics, institutions are more likely to support management at firms for which they retain and exercise a greater fraction of voting authority.

6 Conclusion

This paper shows that institutional ownership is an imperfect proxy for realized voting power. We document large and systematic wedges between reported ownership and votes actually cast, and show that these wedges vary substantially across advisers, across firms, and within institutions across portfolio companies. We further show that this heterogeneity is strongly related to advisers' stated proxy voting arrangements, consistent with the view that differences in realized voting reflect how voting authority is contractually allocated and exercised in adviser-client relationships rather than trading around meetings or securities lending alone.

The firm-level implications of this ownership-control wedge are economically meaningful. Reported holdings of the largest institutional blockholders consistently overstate the voting control they actually exercise, implying that effective voting power is more diffuse than ownership shares alone would suggest. Firms with higher institutional voting utilization exhibit higher turnout and greater support for management's say-on-pay proposals, and at

the institution-firm level, institutions are more likely to support management where they retain and exercise a larger fraction of voting authority. 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 exercises the associated voting rights. More broadly, our results highlight the importance of distinguishing economic ownership from realized control when assessing institutional influence in corporate governance.

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Figure 1: **Ownership–control wedge: reported ownership vs. different realized control scenarios**

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 next bar provides a standard benchmark, that institutions vote all 13F shares (Backus et al. (2021)). The remaining bars show four scenarios observed in the data where voting departs from the simple baseline. The first case, showing underuse of O^{ss} , occurs when managers hold voting authority only over sole+shared holdings but do not cast all available votes, typically due to the reporting institution not exercising voting authority over those shares. The second case also shows underuse of O^{ss} , but 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 unreported positions in which institutions fully outsource investment discretion or with record-date borrowing.

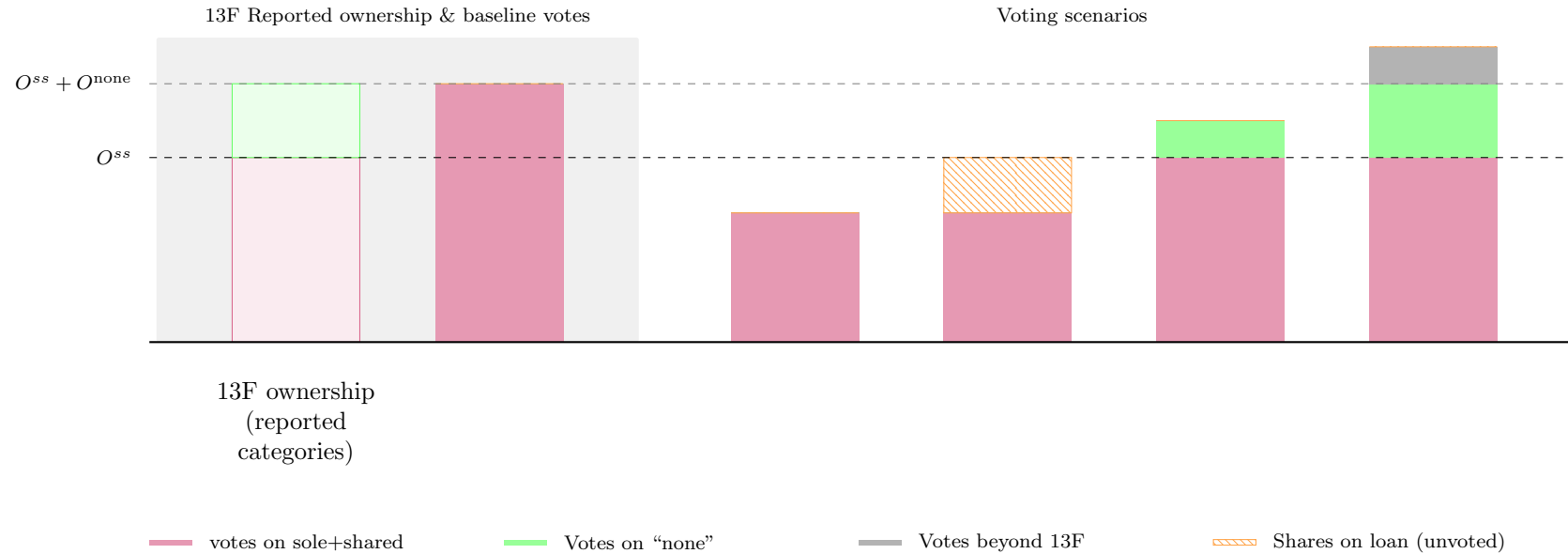


Figure 2: **Largest blockholders: Ownership and votes**

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.

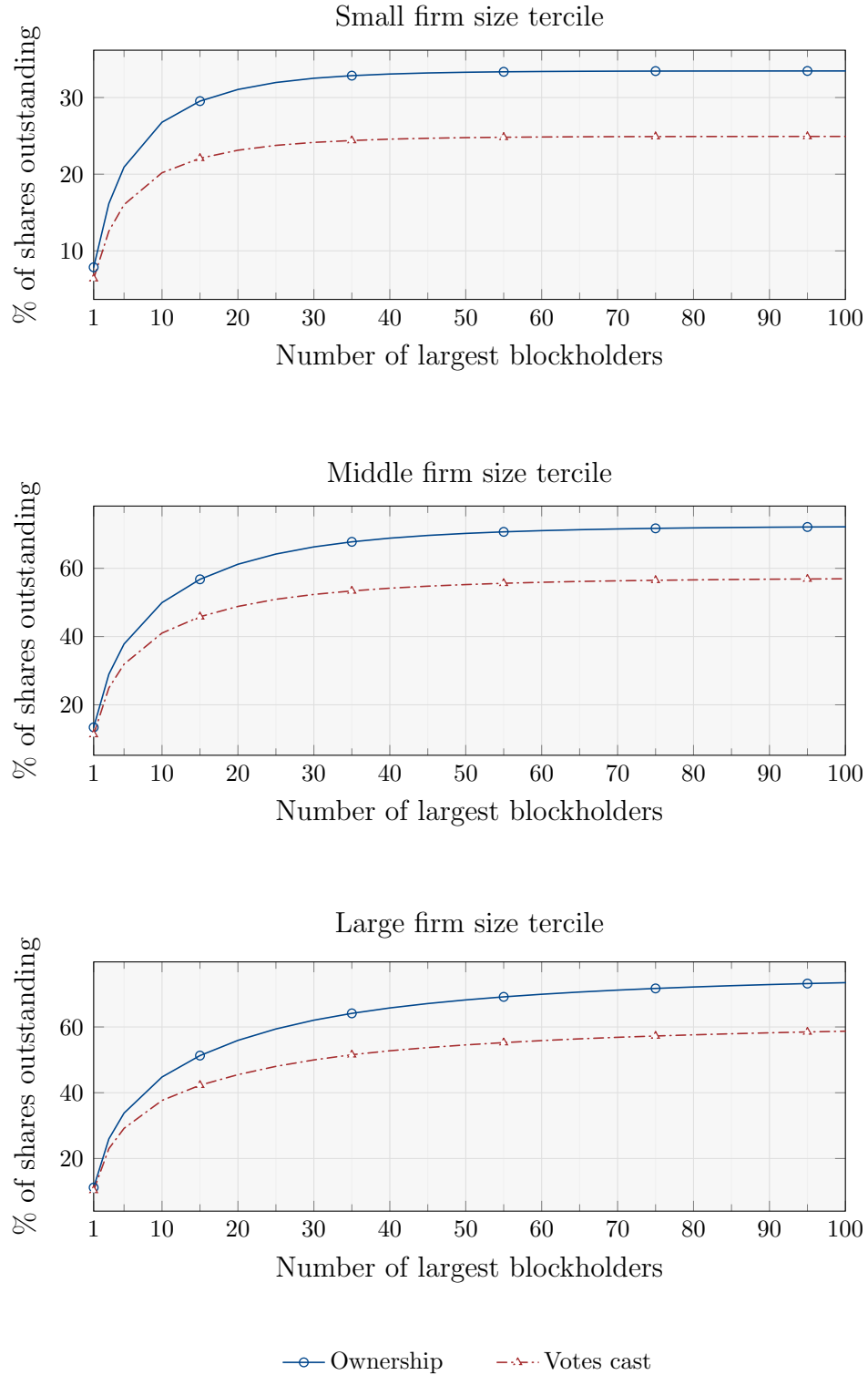


Table 1: **Classification of proxy voting policies in Form ADV disclosures**

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 five proxy voting policy categories described in Section 3.1. 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." • "VWML will not ask for, nor accept voting authority for client securities." • "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." • "We have engaged a third-party service to vote proxies on behalf of our clients."
(4) A client directed voting policy where the adviser's discretion is explicitly subject to active, specific client instruction	• "Old Peak offers Clients the option either to vote proxies themselves or to have Old Peak vote on their behalf." • "Clients may decide to vote however they like and do not have to agree to the Firm's recommendation in voting proxies." • "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."
(5) A segmented voting policy where voting rights are allocated differently based on the legal structure of the capital pool	• "We accept proxy voting delegation from Clients with accounts enrolled in our wrap fee Programs, or in the Vantage Program covered in this brochure. It is important to note that Stifel does NOT vote proxies for foreign ordinary shares or ADRs." • "We may accept proxy voting authority for some accounts but not others." • "The firm's proxy voting policy is not uniform and splits based on account type."

Table 2: **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 five proxy voting policy categories based on disclosures in Item 17 of Form ADV, as described in Section 3.1 and Appendix A.1. 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 ADV Form, 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	3,781	23.4	4.898	0.235
(2) Adviser does not vote by default but offers advice	4,005	24.8	0.772	0.214
(3) Adviser accepts authority to vote	4,383	27.1	10.650	0.796
(4) Adviser's voting subject to client instruction	1,095	6.8	5.493	0.508
(5) Voting rights segmented by capital pool	2,389	14.8	19.000	0.790
Exempt from filing Part 2	437	2.7	23.979	0.238
Item 17 not identified	87	0.5	1.288	0.247

Table 3: **Proxy adviser use across voting policy categories**

This table reports the distribution of proxy adviser use across the three voting policy categories described in Section 3.1, based on Item 17 disclosures. The first row reports whether an adviser engages 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	Adviser's voting subject to client instruction	Voting rights segmented by capital pool
Any proxy adviser involvement	20.08%	23.56%	20.22%
Forms of reliance; not mutually exclusive:			
(i) Uses proxy advisers as research input while retaining final decision-making authority	12.16%	11.69%	11.30%
(ii) Adopts proxy adviser voting guidelines as part of internal voting policy	2.97%	3.47%	3.98%
(iii) Defaults to proxy adviser recommendations except under special circumstances	6.14%	5.84%	7.37%
(iv) Delegates vote execution to proxy advisers or third-party providers	12.87%	14.34%	13.86%

Table 4: **Integrated sample of 13F managers**

This table summarizes the construction of the integrated ownership–voting sample by classifying Form 13F filers according to their Form N-PX proxy voting disclosure status. 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 if they are new Form 13F filers that began filing during the calendar year. For example, managers that first filed Form 13F in 2024 were not obligated to file Form N-PX by August 2024. The remaining managers with missing Form N-PX filings appear to be subject to the filing requirement and are classified separately. Panel B reports the final integrated sample of Form 13F managers with usable holdings information after reconciling ownership and voting disclosures as described in Section 3.3 and Appendix A.2. Percentages are reported relative to the total number of managers in each row.

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	9,362 (100%)	3,192 (34.1%)	588 (6.3%)	912 (9.7%)	2,281 (24.4%)	152 (1.6%)	484 (5.2%)	1,753 (18.7%)
CIKs filing 13F-HR	7,094 (100%)	2,803 (39.5%)	60 (0.8%)	465 (6.6%)	2,117 (29.8%)	90 (1.3%)	321 (4.5%)	1,238 (17.5%)
CIKs filing 13F-NT (notice)	1,926 (100%)	267 (13.9%)	511 (26.5%)	416 (21.6%)	109 (5.7%)	14 (0.7%)	149 (7.7%)	460 (23.9%)
CIKs filing 13F-combo	342 (100%)	122 (35.7%)	17 (5.0%)	31 (9.1%)	55 (16.1%)	48 (14.0%)	14 (4.1%)	55 (16.1%)
Panel B: Integrated sample of 13F filers								
All CIKs with holdings info.	7,321 (100%)	3,054 (41.7%)	—	492 (6.7%)	2,166 (29.6%)	—	331 (4.5%)	1,278 (17.4%)

Table 5: **Firm-level sample coverage**

This table reports firm counts by quarter describing the construction of the firm-level sample. For each quarter, we begin with all CRSP firms with common share codes 10 and 11. We then restrict the sample to firms whose annual meeting record date falls within the same quarter, based on record-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.

	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2	Full Sample
CRSP common shares codes 10 & 11	4,225	4,175	4,111	4,041	3,986	4,375
Firms in ISS Voting Analytics	223	452	442	1,656	1,362	3,827
Firms with SOP meetings	141	259	208	1,364	954	2,875

Table 6: **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 five categories defined in Section 3.1 based on Item 17 of Form ADV. The omitted base category is "Adviser does not vote." Panel A measures client composition using indicator variables equal to one if the adviser serves institutional clients or advises pooled investment vehicles. Panel B replaces these indicators with the percentage of regulatory AUM attributable to institutional clients and pooled investment vehicles. Detailed variable definitions are reported in Appendix Section A.1.2. Huber–White robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Panel A: Client type indicators				
	Voting policy outcome (omitted category: Adviser does not vote)			
	Adviser does not vote by default but offers advice	Adviser accepts authority to vote	Adviser's voting subject to client instruction	Voting rights segmented by capital pool
Log regulatory AUM	-0.0207 (0.0174)	0.3874*** (0.0223)	0.2996*** (0.0272)	0.3056*** (0.0239)
Percent non-discretionary	-0.2990*** (0.0845)	-1.9620*** (0.1257)	-1.2289*** (0.1567)	-0.7969*** (0.1130)
Log number of clients	0.1205*** (0.0179)	-0.2566*** (0.0183)	-0.1176*** (0.0229)	0.0628*** (0.0192)
Institutional clients indicator	0.1993*** (0.0572)	0.2792*** (0.0626)	0.8940*** (0.0927)	0.9796*** (0.0739)
Pooled vehicles indicator	-1.4360*** (0.1039)	1.5016*** (0.0810)	0.8307*** (0.1088)	1.2072*** (0.0862)
Adviser financial industry exposure	-0.1570*** (0.0523)	-0.2068*** (0.0682)	-0.5664*** (0.0847)	-0.0255 (0.0682)
Observations	14,696	14,696	14,696	14,696
Advisers	3795	4217	1068	2309

Table 6 continued

Panel B: Client AUM shares				
	Voting policy outcome (omitted category: Adviser does not vote)			
	Adviser does not vote by default but offers advice	Adviser accepts authority to vote	Adviser's voting subject to client instruction	Voting rights segmented by capital pool
Log regulatory AUM	0.0734*** (0.0190)	0.3984*** (0.0255)	0.3750*** (0.0301)	0.3655*** (0.0271)
Percent non-discretionary	-0.3050*** (0.0865)	-1.9204*** (0.1247)	-1.4127*** (0.1612)	-0.9911*** (0.1157)
Log number of clients	-0.0134 (0.0204)	-0.1882*** (0.0249)	-0.1279*** (0.0296)	0.0933*** (0.0246)
Percent institutional clients	-0.8806*** (0.1191)	0.6409*** (0.1372)	0.4801*** (0.1647)	0.8227*** (0.1376)
Percent pooled vehicles	-3.8025*** (0.2128)	1.5277*** (0.1339)	0.0091 (0.1746)	0.6473*** (0.1429)
Adviser Financial Industry Exposure	-0.0404 (0.0524)	-0.1417** (0.0671)	-0.4338*** (0.0844)	0.0784 (0.0674)
Observations	14,696	14,696	14,696	14,696
Advisers	3795	4217	1068	2309

Table 7: 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 3.1 and Appendix A.1, 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 five 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. 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	1.74%	0.20%	5.21%	58.12%	0.00%	34.73%	979
(2) Adviser does not vote by default but offers advice	0.70%	0.12%	3.86%	70.12%	0.00%	25.20%	1,710
(3) Adviser accepts authority to vote	61.92%	0.67%	5.06%	2.37%	1.91%	28.07%	1,938
(4) Adviser's voting subject to client instruction	61.60%	0.50%	3.67%	4.01%	3.51%	26.71%	599
(5) Voting rights segmented by capital pool	39.95%	1.21%	5.25%	19.77%	2.10%	31.72%	1,239

Table 8: **Summary of the ownership–control wedge across institutions**

$\bar{\delta}_i$ is the average ownership–control wedge for institution i , and $\sigma_{\delta,i}$ its within-portfolio dispersion (see equation (2)). Panel A reports summary statistics across all institutions. Panel B restricts the sample to meetings for which the beginning-of-quarter ownership measure and the record date occur within 10 days (proximate dates). Panel C 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 D reports institution-level wedge statistics by quintiles of aggregate AUM. When the shares voted is missing we assign a value of zero when the manager has voted on other portfolio companies and holds shares at the quarter ends immediately before and after the record date. We restrict the samples in each panel to institutions with at least ten wedge ratios. Winsorization is applied at the observation level as follows. All ownership–control wedge observations are pooled across all filers and the 99th percentile of this pooled distribution is computed. Any observation δ_{ij} above this pooled 99th-percentile 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.

Panel A: Institution-level ownership-control wedge (all institutions)						
Statistic	Mean	Median	SD	P10	P90	N
$\bar{\delta}_i$	0.7694	0.8211	0.5309	0.1295	1.1161	2,498
$\sigma_{\delta,i}$	0.5425	0.3975	0.4940	0.1474	1.1168	2,498
Mean(L_{ij}/O_{ij})	0.0086	0	0.0417	0	0.0102	2,498
Panel B: Institution-level ownership-control wedge (proximate dates)						
Statistic	Mean	Median	SD	P10	P90	N
$\bar{\delta}_i$	0.7476	0.8017	0.5294	0.1110	1.0918	1,438
$\sigma_{\delta,i}$	0.4185	0.3001	0.5067	0.0386	0.8667	1,438
Mean(L_{ij}/O_{ij})	0.0105	0	0.0472	0	0.0138	1,438
Panel C: Institution–company pairs with minimal quarter-to-quarter ownership changes						
Statistic	Mean	Median	SD	P10	P90	N
$\bar{\delta}_i$	0.7377	0.7896	0.5761	0.0929	1.0602	1,936
$\sigma_{\delta,i}$	0.4059	0.3015	0.4762	0.0424	0.8539	1,936
Mean(L_{ij}/O_{ij})	0.0080	0	0.0392	0	0.0086	1,936
Panel D: Ownership-control wedge by institutional size (AUM quintiles)						
	Q1 (smallest)	Q2	Q3	Q4	Q5 (largest)	
$\bar{\delta}_i$	0.7647	0.7702	0.7305	0.7757	0.8061	
$\sigma_{\delta,i}$	0.5136	0.4755	0.4813	0.5421	0.7000	
Mean(L_{ij}/O_{ij})	0.0057	0.0035	0.0044	0.0087	0.0206	

Table 9: **Adviser voting policies and the ownership–control wedge**

This table reports OLS regressions relating advisers’ stated proxy voting policies to the institution-level ownership–control wedge. The dependent variables are the average wedge ($\bar{\delta}_i$) in column (1) and its dispersion ($\sigma_{\delta,i}$) in column (2). Relative to Table 8, we assign a value of zero to a missing shares voted field when the Form N-PX cover page indicates that the adviser does not vote or follows a policy of not voting, and the adviser holds shares at the quarter ends immediately before and after the record date. The independent variables are indicators for five ADV voting policy categories defined in Section 3.1, with “Adviser does not vote” as the omitted category. Heteroskedasticity-robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

	(1)	(2)
	$\bar{\delta}_i$	$\sigma_{\delta,i}$
Adviser does not vote by default but offers advice	-0.0024 (0.0036)	-0.0014 (0.0034)
Adviser accepts authority to vote	0.7010*** (0.0134)	0.4196*** (0.0102)
Adviser’s voting subject to client instruction	0.6761*** (0.0251)	0.3908*** (0.0165)
Voting rights segmented by capital pool	0.4134*** (0.0173)	0.2813*** (0.0134)
Observations	3,711	3,711
R-squared	0.4593	0.3521

Table 10: **Firm-level utilization and institutional voting**

This table presents evidence on how institutional ownership translates into realized turnout and voting on say-on-pay proposals. Panel A reports results linking firm-level 13F voting utilization to aggregate turnout and say-on-pay outcomes. Turnout equals the number of shares voted (the sum of For, Against, and Abstain votes) divided by shares outstanding. Pass equals 1 if a proposal receives at least 70% of votes cast, and 0 otherwise. The support rate is the fraction of For votes over total votes cast, including abstentions. The support margin is the difference between For and Against votes divided by total votes cast. Close vote equals 1 if the support rate is within 5% of the passing threshold, and 0 otherwise. 13F utilization is defined as aggregate votes cast by 13F institutions divided by their aggregate 13F holdings, and is capped at 1 when it exceeds 1. Log assets is the logarithm of firm assets in millions of dollars. Profitability is measured as return on assets, defined as EBITDA divided by assets. It is 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, we replace missing ownership with the number of voting shares plus shares on loan. Robust standard errors are reported in parentheses. Panel B reports results linking institutions' ownership-control wedges to their support for say-on-pay votes. Support equals 1 if an institution votes for a say-on-pay proposal and 0 otherwise. For institutions that split their votes, we compute a weighted vote using the number of votes cast. The ownership-control wedge, δ_{ij} , is the number of votes cast divided by shares held in the prior quarter. Portfolio weight is the value of the stock held divided by an institution's total portfolio value. Standard errors, reported in parentheses, are clustered at the institution level. *** p<0.01, ** p<0.05, * p<0.1.

Panel A: Firm-level turnout and say-on-pay outcomes

	Dependent variables:				
	Turnout	Pass	Support rate	Support margin	Close vote
	(1)	(2)	(3)	(4)	(5)
13F utilization	0.1816*** (0.0206)	0.0835*** (0.0317)	0.0404*** (0.0147)	0.0793*** (0.0290)	-0.0407** (0.0205)
Log assets	0.0038** (0.0015)	-0.0012 (0.0029)	-0.0044*** (0.0013)	-0.0091*** (0.0026)	0.0013 (0.0020)
Profitability	0.1001*** (0.0101)	0.0533*** (0.0191)	0.0444*** (0.0080)	0.0865*** (0.0157)	-0.0309** (0.0134)
13F ownership	0.3149*** (0.0132)	-0.0029 (0.0200)	0.0184* (0.0096)	0.0318* (0.0189)	0.0181 (0.0139)
Quarter FE	Y	Y	Y	Y	Y
Observations	2,665	2,665	2,665	2,665	2,665
R^2	0.5511	0.0126	0.0263	0.0246	0.0069

<i>Table 10 continued</i>		
Panel B: Firm–institution-level voting on say-on-pay proposals		
	Dependent variable: Support	
	(1)	(2)
δ_{ij} (wedge)	0.1140*** (0.0154)	0.1222*** (0.0168)
Portfolio weight		0.2519*** (0.0560)
Meeting FE	Y	Y
13F institution FE	Y	Y
Observations	357,994	333,626
R^2	0.5490	0.5498

Appendix

A Additional Data Details

This appendix provides additional details on the construction of our dataset.

A.1 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.

A.1.1 Overview of Form ADV disclosures

Form ADV consists of Parts 1A, 1B, 2A, 2B, and 3 that 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.¹⁶

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, if 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.

A.1.2 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

¹⁶ www.sec.gov/files/formadv.pdf.

for registered investment advisers and exempt reporting advisers during the period 2022-2024 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, calculated as $\frac{\text{Non-discretionary AUM}}{\text{Total AUM}}$ (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) providing 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. The next section describes how we classify adviser voting disclosures.

A.1.3 Classification of ADV Item 17 voting disclosures

As described in Section 3.1, we classify Item 17 proxy voting disclosures from Form ADV using a multi-stage procedure based on the Google Gemini large language model. In the first stage, we randomly sample 500 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 500 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 ensuring 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, a result that is robust to larger pilot samples of 1,000 and 2,000 disclosures. In the second stage, we use the Gemini API to classify the full sample based on these five categories, instructing the model to report both a confidence score and a textual justification for each classification. Specifically, the model is instructed as follows:

“You are an expert academic researcher in corporate governance and agency theory. Your task is to classify “Proxy Voting” disclosure texts from Form ADV into exactly one of the following 5 mutually exclusive categories. You must also output a `confidence_score` (0.0 to 1.0) and an `if_check` flag (0 or 1).”

“Core Task. Analyze the text to determine the allocation of control rights (Who holds the ultimate decision power?) and the cost of monitoring.”

We then provide the category definitions and key signals from the first-stage output to classify the full sample. After the full sample classification, we standardize the output and merge category id,

category name, confidence score, reasoning, and the check indicator into the data for subsequent analysis.

In the third step, we isolate classifications with confidence scores below 0.85 and subject these cases to a targeted review. Specifically, we prompt the model to identify governance structures not adequately captured by the initial five-category scheme. We prompt Gemini as follows:

“You are an expert academic researcher in corporate governance and agency theory. You previously attempted to classify the following text into a 5-category framework, but the classification resulted in a low confidence score (< 0.85), indicating a poor fit or semantic ambiguity. Your goal is NOT to force this text into the existing 5 categories. Instead, you must conduct a “Bottom-Up” forensic analysis to identify if this text represents a novel governance structure or a hybrid mechanism not adequately captured by the initial scheme. Please give the reasoning and category names.”

This additional analysis identifies a large number of observations that are systematically related to “client-directed voting,” a category that was not included earlier. In addition, since the number of voting disclosures allocated to the category “third-party” is small we reassign these texts under the category “adviser accepts authority to vote.” We then reclassify the full ADV sample using the final five-category typology. Our final five-category description is given in Section 3.1.

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 upload the text file and prompt Gemini as follows:

“You are an expert academic researcher in corporate governance and financial regulation. These texts may mention “third parties”, but the specific nature of the relationships with these third parties may vary. Please analyze the entire document and provide a comprehensive, detailed classification of third parties; these classifications do not necessarily have to be mutually exclusive.”

The output that we obtain is as follows: “Third-party involvement in proxy voting can be simplified into five distinct approaches: Full-Service Integration involves the third party in the entire workflow from research to record-keeping; Advisory-Informed Autonomy uses external research only as a reference while keeping final decisions internal; Policy Adoption occurs when a firm formally incorporates the third party’s voting guidelines into its own rules; Default Following is a passive approach where the firm automatically mirrors the third party’s recommendations unless a conflict arises; and Operational Outsourcing delegates only the administrative “paperwork” and logistics of casting ballots without giving up any decision-making power.”

We then use the following prompt:

“You are an expert academic researcher in corporate governance and financial regulation. Your task is to analyze “Proxy Voting” disclosure texts from Form ADV (Item 17) to identify the specific nature of a firm’s reliance on third-party proxy advisers (e.g., ISS, Glass Lewis).”

The category definitions that we provide are given as follows:

Category Definitions.

1. `use_any_pa`: The text mentions using ANY third-party proxy adviser for any purpose. Keywords: “ISS”, “Institutional Shareholder Services”, “Glass Lewis”, “Egan-Jones”, “proxy service provider”, “third-party research”.

2. `research_input`: The firm uses PA reports as information/analysis but explicitly retains final decision-making authority or conducts its own independent evaluation. Signals: “used as a supplement”, “we conduct independent analysis”, “final authority rests with our committee”.
3. `adopt_guidelines`: The firm formally adopts the voting guidelines of a proxy adviser as its own internal voting policy. Signals: “adopts the ISS Proxy Voting Guidelines”, “votes are cast in accordance with [PA] policy”, “follows [PA]’s standard guidelines”.
4. `default_rec`: The firm defaults to or “generally follows” the PA’s specific vote recommendations, except under special circumstances. Signals: “generally follow the recommendations”, “votes in accordance with recommendations unless...”, “default to [PA] position”.
5. `delegate_execution`: The firm uses a third-party platform to handle the mechanical process of casting, submitting, or recording votes. Signals: “uses [PA] to execute votes”, “electronic voting platform”, “administrative services provided by [PA]”.

“These categories are NOT mutually exclusive. Assign 1 if the practice is present, 0 otherwise.”

Finally, we merge these five category indicators into the dataset. Table 3 presents this information.

A.1.4 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 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 top 50 institutions that do not report subsidiaries on their 13F cover pages. This process identifies 629 investment advisers (351 with matched CIKs) belonging to 146 parent companies.

A.2 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 classification based on the combination of their Form 13F and Form N-PX filing types.

Table 4, Panel A, 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.

A.2.1 Form 13F-HR filers

There are 7,094 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 4, Panel A.

- **Managers filing Form N-PX filings containing proxy votes.** Among the 7,094 13F-HR managers filing Form 13F-HR, we identify 2,803 N-PX filings containing proxy votes. Only one manager, Norges Bank, reported zero votes for all portfolio companies due to confidential treatment. We therefore treat Norges Bank as not having filed an N-PX.

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.¹⁷ 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 report whose votes are reported by other reporting persons.** We identify 2,642 13F-HR filers that submit an *Institutional Manager Notice Report*, of which 60 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.

¹⁷ 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.

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 report who do not exercise voting power.** Among the 2,642 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 report who state they do not vote.** We identify 2,117 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 90 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 60 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.

Below is a representative case involving Kayne Anderson Rudnick Investment Management LLC.

Table A.1: **Other Reporting Funds: Kayne Anderson Rudnick**

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 KAR Long/Short Equity Fund	S000063645
Virtus Alternative Solutions Trust	0001589756	Virtus KAR Small-Cap Growth Series	S000001949
Virtus Variable Insurance Trust	0000792359	Virtus KAR Small-Cap Value Series	S000001958
		Virtus KAR Capital Growth Series	S000001963
		Virtus KAR Equity Income Series	S000001964
		Virtus KAR Global Quality Dividend Fund	S000001386
Virtus Equity Trust	0000034273	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

- **Managers who do not file an N-PX.** Of the 1,559 Form 13F-HR filers that did not file a Form N-PX for the July 1, 2023–June 30, 2024 reporting period, 321 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 1,238 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 A.2 below. 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.

Table A.2: State Street Subsidiaries

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

A.2.2 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 4.

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.

A.2.3 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 SeriesID. See Table A.3 below.

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 A.3) and (ii) the N-PX institutional manager voting report filed by Vanguard Personalized Indexing Management, LLC.

Table A.3: Vanguard reporting entities

Other persons reporting for this manager	CIK	SeriesID
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	—	S0000114011
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

The second example of a 13F combo filer is BlackRock Inc. (CIK# 0001364742). We retrieve its 13F filings which are combination reports ([SEC Link](#)). Its N-PX filing was in the form of 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 A.4 below, 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 mutual funds, from these two combination reports. See Table A.5.

Table A.4: **BlackRock’s subsidiaries**

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	–

Finally, we also gather from the 13F filings the “list of other managers reporting for this manager.” These managers are listed in Table A.6. 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.

Table A.5: **Mutual funds reporting for BlackRock combination-report managers**

Other included manager	CIK	Mutual 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 A.6: **BlackRock’s “list of other managers reporting”**

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

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) mutual funds listed in the N-PX combination reports of those managers.

B Decomposing the ownership–control wedge

This appendix provides a decomposition of the ownership–control wedge introduced in Section 5.1. The purpose of the decomposition is to point to the distinct mechanisms through which reported institutional ownership translates imperfectly into record-date voting control. While the main text focuses on summaries of the wedge, the analysis below offers additional structure and intuition for how different institutional practices contribute to deviations between ownership and votes.

Recall that we denoted by O_{ij} the Form 13F holdings of institution i in company j as of the quarter end immediately preceding the record date: $O_{ij} = O_{ij}^{\text{sole}} + O_{ij}^{\text{shared}} + O_{ij}^{\text{none}}$. The institution’s observable record-date holdings are therefore $O_{ij}^{\text{RD}} = V_{ij} + L_{ij}$.

To interpret the sources of divergence between ownership and control, we denote by $O_{ij}^{\text{ss}} \equiv O_{ij}^{\text{sole}} + O_{ij}^{\text{shared}}$ the sum of shares with reported sole or shared voting authority, and allocate total votes V_{ij} as:

$$V_{ij}^{\text{ss}} \equiv \min\{V_{ij}, O_{ij}^{\text{ss}}\}, \quad (\text{B.1a})$$

$$V_{ij}^{\text{none}} \equiv \min\left\{\max(V_{ij} - O_{ij}^{\text{ss}}, 0), O_{ij}^{\text{none}}\right\}, \quad (\text{B.1b})$$

$$V_{ij}^{\text{res}} \equiv \max\left\{V_{ij} - O_{ij}^{\text{ss}} - O_{ij}^{\text{none}}, 0\right\}. \quad (\text{B.1c})$$

The first term allocates votes to holdings with reported sole or shared voting authority; the second assigns any remaining votes to shares reported with no voting authority; and the third captures residual votes beyond the total reported 13F holdings. By construction, $V_{ij} = V_{ij}^{\text{ss}} + V_{ij}^{\text{none}} + V_{ij}^{\text{res}}$.

For the purpose of the decomposition, it is useful to work with the record-date ownership–control wedge, defined as the ratio of record-date holdings to reported ownership,

$$\delta_{ij}^{\text{RD}} \equiv \frac{O_{ij}^{\text{RD}}}{O_{ij}} = \frac{V_{ij} + L_{ij}}{O_{ij}}. \quad (\text{B.2})$$

Substituting V_{ij}^{ss} , V_{ij}^{none} , and V_{ij}^{res} into (B.2), we can express the ownership–control wedge as:

$$\delta_{ij}^{\text{RD}} = \underbrace{\left[w_{ij} \frac{V_{ij}^{\text{ss}}}{O_{ij}^{\text{ss}}} + (1 - w_{ij}) \frac{V_{ij}^{\text{none}}}{O_{ij}^{\text{none}}}\right]}_{(1) \text{ Within-ownership component}} + \underbrace{\frac{V_{ij}^{\text{res}}}{O_{ij}}}_{(2) \text{ Beyond-ownership votes}} + \underbrace{\frac{L_{ij}}{O_{ij}}}_{(3) \text{ Lending effect}}. \quad (\text{B.3})$$

Here $w_{ij} \equiv O_{ij}^{\text{ss}}/O_{ij}$ denotes the share of total ownership reported with sole or shared voting authority, and $(1 - w_{ij})$ the share reported with no authority. These weights partition total 13F reported ownership into the two categories that define the within-ownership component of the wedge. The first bracketed term in (B.3) therefore combines the utilization rates for each category— $V_{ij}^{\text{ss}}/O_{ij}^{\text{ss}}$ and $V_{ij}^{\text{none}}/O_{ij}^{\text{none}}$ —weighted by their ownership shares. Together, these capture how effectively the institution’s reported holdings on its 13F filing translate into control.

Term (2) represents votes cast in excess of all 13F-reported holdings, such as from client accounts outside the manager’s investment discretion or pre-record-date borrowing, indicating control beyond reported ownership. Term (3) captures shares on loan that were not recalled as of the record date. Although such shares remain part of ownership reports, they carry no voting rights and therefore reduce effective control.

Terms (1) and (2) together sum to the votes-only ownership–control wedge $\delta_{ij} = V_{ij}/O_{ij}$ defined in the main text, while Term (3) captures the additional gap between voting control and record-date ownership due to securities lending. Equation (B.3) thus provides a decomposition of the mapping from reported ownership to control. Differences across institutions in the level and dispersion of δ_{ij} reflect variation in policies and constraints such as securities lending, client mandates, or internal coordination of voting authority, that determine the extent to which ownership translates into control.

To further build intuition for how this decomposition in Equation (B.3) appears in practice, Table B.1 presents four institution–meeting pairs that exemplify these mechanisms. Summit Trail Advisors shows a wedge equal to 0.5 due to partial use of reported voting authority; Northstar Asset Management Co LLC votes shares that account for 60% of shares reported under “none”; Holocene Advisors LP reports voting shares that are nearly 50% larger than the number of shares it reports under sole ownership; and the State Board of Administration of the Florida Retirement System votes more than the shares reported under sole ownership as well as has securities on loan that were not recalled. These examples illustrate how the three additive terms in Equation (B.3) capture distinct channels through which reported ownership diverges from effective control.

Tables B.2 and B.3 below provide information on ownership-control wedges for two institutional investment managers. Panel A in each table lists the twenty highest δ_{ij} values, while Panel B lists the lowest. For Summit Trail Advisors (Table B.2), variation in δ_{ij} primarily reflects delegation of voting rights or client-level restrictions within term (1). For the State Board of Administration of the Florida Retirement System (Table B.3), positive values of L_{ij} highlight the lending channel captured by Term (3). The examples highlight that the wedge between reported ownership and realized control arises through distinct, institution-specific mechanisms.

Table B.1: **Representative institution-meeting examples of the ownership-control wedge**

This table illustrates mechanisms underlying the ownership-control wedge for a small set of representative institution-meeting pairs. Each row corresponds to one institution and one shareholder meeting selected to highlight a distinct mechanism through which reported ownership diverges from control. The column labeled δ_{ij} reports the ownership-control wedge, defined as V_{ij}/O_{ij} (see, equation (1)). The next three columns decompose δ_{ij} into votes cast on sole and shared holdings, votes cast on “none” holdings, and votes cast beyond reported ownership. The final column reports shares on loan as a fraction of reported ownership. These shares are unavailable for voting and therefore explain why voting control may fall short of reported ownership. The institutions listed represent distinct types of asset managers: (i) Summit Trail Advisors, reporting share ownership under the 13F “sole” category ([SEC Link](#)) with no lending activity ([SEC Link](#)); (ii) Northstar Asset Management Co LLC, reporting share ownership under the 13F “none” category ([SEC Link](#)) with no lending activity ([SEC Link](#)); (iii) Holocene Advisors, LP, reporting voting ([SEC Link](#)) more than the total shares on its 13F filing ([SEC Link](#)); (iv) State Board of Administration of the Florida Retirement System that votes ([SEC Link](#)) and lends securities ([SEC Link](#)).

Institution	Company	δ_{ij}	Votes contributing to δ_{ij}			Ownership not available for voting
			Within 13F own.		Beyond 13F own.	Share lending
			V_{ij}^{ss}/O_{ij}	$V_{ij}^{\text{none}}/O_{ij}$	$V_{ij}^{\text{res}}/O_{ij}$	
Summit Trail Advisors	Visa Inc.	0.5053	0.5053	0	0	0
Northstar Asset Management Co	V.F. Corp.	0.5974	0	0.5974	0	0
Holocene Advisors, LP	Constellation Brands	1.548	1.548	0	0	0
SBA Florida	Casey’s General Stores	1.359	1.359	0.00	0.00	0.1134

Table B.2: Illustrative ownership–control wedges for Summit Trail Advisors, LLC

This table reports a subset of ownership-control wedge observations (δ_{ij}) for Summit Trail Advisors, LLC (CIK: 0001698478), constructed by matching Form 13F holdings with realized proxy votes from Form N-PX at the record date. Panel A provides the 20 smallest wedge observations while panel B provides the largest 20 wedge observations. The average wedge across all wedge observations, $\bar{\delta}$, is 1.807 and the standard deviation, σ_{δ} , is 26.030. 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).

Panel A: Bottom 20 holdings by δ_{ij}											
Company name	Record date	Meeting date	Beginning of quarter voting authority			End of quarter voting authority			N-PX		δ_{ij}
			Sole	Shared	None	Sole	Shared	None	Shares voted	Shares on loan	
Antero Resources Corporation	2024-04-15	2024-06-05	580,330	0	0	580,404	0	0	11	0	0.000
Henry Schein, Inc.	2024-03-22	2024-05-21	8,174	0	0	8,562	0	0	4	0	0.000
Smartsheet Inc.	2024-04-19	2024-06-18	12,936	0	0	–	–	–	7	0	0.001
LiveRamp Holdings, Inc.	2023-06-20	2023-08-15	115,580	0	0	115,422	0	0	94	0	0.001
Cardinal Health, Inc.	2023-09-18	2023-11-15	2,312	0	0	2,523	0	0	5	0	0.002
Valvoline, Inc.	2023-12-01	2024-01-25	7,352	0	0	10,940	0	0	21	0	0.003
Cintas Corporation	2023-08-28	2023-10-24	982	0	0	1,051	0	0	3	0	0.003
SS&C Technologies Holdings, Inc.	2024-04-02	2024-05-29	6,909	0	0	7,112	0	0	22	0	0.003
BJ's Wholesale Club Holdings, Inc.	2024-04-29	2024-06-20	8,804	0	0	15,753	0	0	31	0	0.004
Martin Marietta Materials, Inc.	2024-03-07	2024-05-16	1,418	0	0	1,426	0	0	5	0	0.004
Zions Bancorporation, National Association	2024-02-22	2024-04-26	9,348	0	0	9,449	0	0	39	0	0.004
VeriSign, Inc.	2024-03-28	2024-05-23	1,798	0	0	2,873	0	0	10	0	0.006
Humana Inc.	2024-02-29	2024-04-18	1,032	0	0	1,082	0	0	6	0	0.006
Carlisle Companies Incorporated	2024-03-06	2024-05-01	2,230	0	0	1,974	0	0	13	0	0.006
The Interpublic Group of Companies, Inc.	2024-04-01	2024-05-23	19,843	0	0	16,511	0	0	124	0	0.006
The Hartford Financial Services Group, Inc.	2024-03-18	2024-05-15	2,615	0	0	2,813	0	0	17	0	0.007
Hewlett Packard Enterprise Company	2024-02-12	2024-04-10	18,035	0	0	22,174	0	0	122	0	0.007
AMETEK, Inc.	2024-03-08	2024-05-07	6,748	0	0	7,016	0	0	47	0	0.007
eBay Inc.	2024-04-22	2024-06-20	8,584	0	0	16,542	0	0	80	0	0.009
Loews Corporation	2024-03-19	2024-05-14	4,877	0	0	5,559	0	0	46	0	0.009

Panel B: Top 20 holdings by δ_{ij}											
Company name	Record date	Meeting date	Beginning of quarter voting authority			End of quarter voting authority			N-PX		δ_{ij}
			Sole	Shared	None	Sole	Shared	None	Shares voted	Shares on loan	
Ollie's Bargain Outlet Holdings, Inc.	2024-04-17	2024-06-13	5,418	0	0	–	–	–	2,708,613	0	499.929
Bill Holdings, Inc.	2023-10-12	2023-12-07	10,613	0	0	4,585	0	0	231,868	0	21.848
Altria Group, Inc.	2024-03-25	2024-05-16	10,496	0	0	41,939	0	0	32,504	0	3.097
OPENLANE, Inc.	2024-04-09	2024-06-07	45,000	0	0	45,113	0	0	125,356	0	2.786
Amphenol Corporation	2024-03-18	2024-05-16	5,999	0	0	8,695	0	0	16,112	0	2.686
DuPont de Nemours, Inc.	2024-03-28	2024-06-05	3,194	0	0	8,303	0	0	7,520	0	2.354
Consolidated Edison, Inc.	2024-03-25	2024-05-20	5,269	0	0	17,859	0	0	12,324	0	2.339
Marathon Oil Corporation	2024-03-25	2024-05-22	8,386	0	0	22,648	0	0	16,982	0	2.025
Phillips 66	2024-03-20	2024-05-15	2,865	0	0	4,254	0	0	3,966	0	1.384
L3Harris Technologies, Inc.	2024-02-23	2024-04-19	3,832	0	0	3,976	0	0	5,292	0	1.381
Qurate Retail, Inc.	2024-04-16	2024-06-10	220,000	0	0	260,000	0	0	256,093	0	1.164
Immunix, Inc.	2024-04-22	2024-06-11	18,600	0	0	21,600	0	0	21,600	0	1.161
CSX Corporation	2024-03-11	2024-05-08	13,960	0	0	47,064	0	0	15,153	0	1.085
AT&T Inc.	2024-03-18	2024-05-16	58,101	0	0	118,178	0	0	61,080	0	1.051
Okta, Inc.	2024-04-24	2024-06-20	46,040	0	0	41,659	0	0	47,000	0	1.021
Doximity, Inc.	2023-06-01	2023-07-26	52,776	0	0	53,020	0	0	52,994	0	1.004
HireQuest, Inc.	2024-04-23	2024-06-14	62,625	0	0	62,630	0	0	62,625	0	1.000
Expeditors International of Washington, Inc.	2024-03-12	2024-05-07	369,420	0	0	369,626	0	0	368,898	0	0.999
LegalZoom.com, Inc.	2024-04-11	2024-06-06	133,478	0	0	133,312	0	0	133,142	0	0.997
ATN International, Inc.	2024-04-22	2024-06-18	20,689	0	0	26,195	0	0	20,608	0	0.996

Table B.3: State board of administration of Florida retirement system

This table reports a subset of ownership-control wedge observations (δ_{ij}) for the State Board of Administration of Florida Retirement System (CIK: 938076), constructed by matching Form 13F holdings with realized proxy votes from Form N-PX at the record date. Panel A provides the 20 smallest wedge observations while panel B provides the largest 20 wedge observations. The average wedge across all wedge observations, $\bar{\delta}$, is 2.353 and the standard deviation, σ_{δ} , is 3.888. 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).

Panel A: Bottom 20 holdings by δ_{ij}											
Company name	Record date	Meeting date	Beginning of quarter voting authority			End of quarter voting authority			N-PX		$\delta_{i,j}$
			Sole	Shared	None	Sole	Shared	None	Shares voted	Shares on loan	
Butterfly Network, Inc.	2024-04-15	2024-06-07	29,563	0	0	—	—	—	0	10,812	0.000
Origin Materials, Inc.	2024-03-11	2024-05-02	33,360	0	0	—	—	—	0	9,319	0.000
Gevo, Inc.	2024-03-25	2024-05-21	74,275	0	0	74,165	0	0	0	17,867	0.000
WW International, Inc.	2024-03-20	2024-05-09	19,795	0	0	19,735	0	0	0	4,516	0.000
Nicolet Bankshares, Inc.	2024-03-18	2024-05-20	3,679	0	0	—	—	—	0	1,719	0.000
Eos Energy Enterprises, Inc.	2024-03-11	2024-05-01	30,710	0	0	—	—	—	0	13,818	0.000
Karyopharm Therapeutics, Inc.	2024-04-04	2024-05-29	27,015	0	0	—	—	—	0	7,109	0.000
Vuzix Corporation	2024-04-17	2024-06-13	25,217	0	0	—	—	—	0	5,408	0.000
Hyllion Holdings Corp.	2024-03-27	2024-05-21	48,460	0	0	48,270	0	0	0	10,732	0.000
Jackson Financial Inc.	2024-03-25	2024-05-23	23,660	0	0	16,900	0	0	1	22,468	0.000
Eastman Kodak Company	2024-03-20	2024-05-15	16,270	0	0	—	—	—	3	5,757	0.000
Evolent Health, Inc.	2024-04-11	2024-06-06	26,184	0	0	31,444	0	0	5	42,299	0.000
Lucid Group, Inc.	2024-04-10	2024-06-04	481,779	0	0	497,331	0	0	100	571,636	0.000
WideOpenWest, Inc.	2024-03-15	2024-05-09	14,690	0	0	—	—	—	4	3,856	0.000
OPKO Health, Inc.	2024-02-13	2024-03-28	176,260	0	0	176,020	0	0	60	226,008	0.000
LCI Industries	2024-03-22	2024-05-16	7,058	0	0	2,058	0	0	3	2,376	0.000
Plug Power Inc.	2024-04-08	2024-06-05	600,188	0	0	158,884	0	0	284	618,478	0.000
Workiva Inc.	2024-04-01	2024-05-30	15,260	0	0	13,540	0	0	12	32,594	0.001
Novavax, Inc.	2024-04-22	2024-06-13	83,613	0	0	26,057	0	0	67	32,648	0.001
Chesapeake Energy Corporation	2024-04-22	2024-06-18	124,058	0	0	114,481	0	0	101	135,278	0.001

Panel B: Top 20 holdings by δ_{ij}											
Company name	Record date	Meeting date	Beginning of quarter voting authority			End of quarter voting authority			N-PX		$\delta_{i,j}$
			Sole	Shared	None	Sole	Shared	None	Shares voted	Shares on loan	
Brightcove Inc.	2024-03-15	2024-05-08	11,334	0	0	21,454	0	0	708,729	0	62.531
Harvard Bioscience, Inc.	2024-03-20	2024-05-14	11,430	0	0	—	—	—	682,849	0	59.742
Cantaloupe, Inc.	2023-10-03	2023-11-30	16,460	0	0	16,460	0	0	688,287	3,987	41.816
AngioDynamics, Inc.	2023-09-20	2023-11-14	10,717	0	0	10,847	0	0	430,120	0	40.134
SolarEdge Technologies, Inc.	2024-04-08	2024-06-05	3,324	0	0	—	—	—	105,644	40,200	31.782
MercadoLibre, Inc.	2024-04-09	2024-06-05	2,775	0	0	3,175	0	0	84,152	0	30.325
DHI Group, Inc.	2024-03-12	2024-04-25	11,118	0	0	—	—	—	336,200	0	30.239
Zeta Global Holdings Corp.	2024-04-29	2024-06-18	13,510	0	0	39,270	0	0	376,929	12,631	27.900
Viad Corp	2024-03-18	2024-05-15	5,822	0	0	9,852	0	0	162,245	0	27.868
ANI Pharmaceuticals, Inc.	2024-03-27	2024-05-21	4,146	0	0	—	—	—	106,903	0	25.785
Accuray Incorporated	2023-09-14	2023-11-09	26,480	0	0	26,620	0	0	645,091	10,188	24.361
Aspen Aerogels, Inc.	2024-04-03	2024-05-30	14,118	0	0	14,618	0	0	332,714	138	23.567
Olo Inc.	2024-04-22	2024-06-20	15,780	0	0	29,640	0	0	347,266	0	22.007
Udemy, Inc.	2024-04-05	2024-06-03	11,710	0	0	24,610	0	0	254,390	7,016	21.724
Shoe Carnival, Inc.	2024-04-24	2024-06-25	9,144	0	0	—	—	—	192,063	1,850	21.004
Zuora, Inc.	2024-05-07	2024-06-27	22,173	0	0	37,043	0	0	456,658	0	20.595
Axogen, Inc.	2023-06-27	2023-08-15	16,843	0	0	16,833	0	0	321,923	0	19.113
Ranpak Holdings Corp.	2024-03-28	2024-05-23	12,410	0	0	—	—	—	233,345	0	18.803
QuinStreet, Inc.	2023-09-05	2023-10-27	21,497	0	0	21,757	0	0	401,062	12,160	18.657
Cerus Corporation	2024-04-12	2024-06-05	49,535	0	0	50,635	0	0	923,310	12,720	18.640