Optional shareholder voting

Peter Iliev and Michelle Lowry*

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Abstract

Shareholder voting is optional for institutional managers (IMs), a category that includes activists, hedge funds, private wealth, and mixed asset management. Only 44% of IMs vote on firms' say-on-pay policies. However, their impact is large: the dollar value of their shares voted is twice that of mutual funds. Results suggest they use voting as a monitoring tool: among larger positions, where the benefits of monitoring are greater, they are both more likely to vote and more likely to vote against management. Yet, there is substantial heterogeneity across IMs, with some using voting to pursue other objectives, such as signaling friendliness toward management. We find that smaller firms attract fewer IM votes overall, but among shares voted, there is a more anti-management stance.

Keywords: Shareholder Voting, Optional Voting, CEO Compensation, Firm Governance, Activists, Hedge Funds, Private Wealth

JEL Classification: G23, G34, G38

*Peter G. Iliev (pgi1@psu.edu) is at the Smeal College of Business at the Pennsylvania State University. Michelle Lowry (michelle.lowry@drexel.edu) the LeBow School of Business at Drexel University. We thank seminar participants at ESSEC, ESCP Turin, and the Luiss School of Business

1 Introduction

Institutional investor holdings are frequently used as a proxy for the extent of firm monitoring. However, institutions differ widely in their incentives and ability to engage in monitor. Prior literature shows that larger and more long-term investors engage in greater scrutiny of management (Shleifer and Vishny, 1986; Chen, Harford, and Li, 2007), and some investors, such as hedge funds (Brav et al., 2008), are more activist-oriented. However, despite this heterogeneity, empirical evidence on actual monitoring across the broad universe of institutional investors is limited, largely due to a lack of data.

We take advantage of newly available data to explore heterogeneity across institutions in one of the most direct and democratic forms of monitoring: shareholder voting.[1] The literature on shareholder voting is largely centered on voting by one subset of institutional investors: registered management investment companies (RMICs), commonly referred to as mutual funds.[2] That is both understandable and easily defendable: this class of investors has been required to report all voting since 2003 (Securities and Exchange Commission, 2003), and many mutual funds represent active and consequential investors. However, this literature ignores a larger set of institutional investors. In fact, most US institutional investors are not mutual funds; rather, they are broadly defined by the Securities and Exchange Commission (SEC) as "institutional managers" (IMs).

Unlike mutual funds, most IMs do not have a fiduciary duty to vote.[3] For these

[1]The U.S. Securities and Exchange Commission adopted new rules, effective on July 1 2024, that require each person that (1) is an institutional investment manager" as defined in the Exchange Act; and (2) is required to file reports under section 13(f) of the Exchange Act, to report its say-on-pay votes on Form N-PX." These amendments were driven by the mandate in Section 951 of the Dodd-Frank Act. See SEC Release Nos. 33-11131.

[2]RMICs also includes ETFs and closed end funds. We use mutual funds as an umbrella term to include all RMICs.

[3]We discuss the legal and regulatory details in Section 2.

institutions, voting represents a strategic choice. On the one hand, IMs should vote if they perceive the net benefits of this form of monitoring to be positive, for example, to pressure firms to make value-increasing changes. Alternatively, IMs may vote to convey their friendliness, supporting management on key votes to maintain open communication channels, facilitate ongoing engagement, and potentially obtain soft information. Finally, IMs may vote to signal diligence, for example, to underlying shareholders or regulators. A blanket voting policy can be a "regulatory hedge" against potential SEC scrutiny (Securities and Exchange Commission, 2019).

We begin by developing a discrete choice model, which examines how the costs and benefits of voting affect both the propensity to vote and the direction of the vote. The model provides several takeaways. First, assuming fixed costs of voting, larger position size increases net benefits of voting and thus the propensity to vote. Second, the direction of the vote depends on the source of these benefits. If the benefits arise primarily from monitoring, the likelihood of opposing management is increasing in position size. In contrast, this likelihood is decreasing in position size if benefits arise from friendliness toward management or a tendency to prioritize engagement. Simulations across varying parameterizations provide insight into the interactive effects of these factors.

We then take the insights from the model to the data. First, we explore each institution's choice of whether to participate in voting, that is, whether to vote on any of their portfolio companies. Second, conditional on participating in voting, we examine which portfolio companies they vote on. Third, we examine the direction of voting in the subset of companies voted on.

We focus on say-on-pay (SOP) votes across 7,021 annual firm meetings in 2023–2025. SOP votes were introduced in 2011, and they are both common and conse-

quential, with low votes causing changes to compensation policies and governance practices (Cai and Walkling, 2011; Ferri and Maber, 2013; Ertimur, Ferri, and Oesch, 2013; Cunat, Gine, and Guadalupe, 2016; Correa and Lel, 2016; Iliev and Vitanova, 2019). As per SEC rule 14Ad-1, all IMs who file 13F forms are required to disclose information related to their SOP votes starting in July, 2023. Unlike previous general disclosures, the rule requires managers to report the specific number of shares voted and how they were voted (For, Against, or Abstain) using eXtensible Business Reporting Language (XBRL) tags. If a manager has a policy of not voting or simply did not vote, they must indicate this on the filings.

Descriptive evidence on aggregate dollars voted provides the first insight into the voting behavior of this class of institutional investors. Over our sample period, only 44% of IMs voted in any of their portfolio firms. In fact, 33% of IMs have a stated policy not to vote, meaning that even if faced with a controversial agenda item, they do not vote. Strikingly, even though IMs only vote a fraction of their total shares, their aggregate voting footprint is enormous: in 2025, IMs cast votes on $16.4 trillion in shares, more than double the $8 trillion voted by mutual funds. These simple tabulations highlight two important points. First, while institutional ownership is a widely used proxy for monitoring, a substantial portion of these investors do not engage in one of the most basic forms of monitoring. Second, while nearly all literature to date on shareholder voting has focused exclusively on mutual funds, other institutions have a greater impact on voting results.

Our first main set of tests focuses on propensity to vote. IMs represent a highly heterogeneous group both in their structure and investment goals. To examine potential variation in voting strategy, we categorize them into four non-overlapping groups: activists, non-activist hedge funds, private wealth, and mixed asset man-

agement. The last category includes large IMs that represent combinations of the above categories, as well as banks, insurance companies, pension funds, foreign investors, foundations, and endowments. We find that activist IMs, and hedge funds are significantly more likely to vote, consistent with them having more monitoring expertise. We also find that larger and more concentrated IMs are more likely to vote in at least some portfolio firms, which is broadly consistent with model predictions as such investors are more likely to have large dollar positions.

To examine model predictions more directly, we analyze which portfolio firms IMs choose to vote on. We begin by controlling for all vote and firm characteristics, as absorbed by meeting fixed effects, and examining the effects of IM position size. Consistent with predictions, the probability of voting increases monotonically from 18% among the first decile of dollar holdings to nearly 70% within the largest decile. Further analyses reveals that this effect is driven by both large IMs being more likely to vote, and by IMs being more likely to vote when their position size represents a larger potion of firm equity. These patterns are observed across all types of IMs. In comparison, the effects of a firm's performance are more moderate: on average across the whole sample, a one standard deviation decrease in returns is associated with a 1.9% higher likelihood of voting.

Our second main set of tests focuses on the direction of IMs' voting. To provide a benchmark, we compare their voting to that of mutual funds. If IMs primarily use voting as a monitoring mechanism, they will be more likely to vote when they perceive agency costs to be high. Thus, they should be more likely than mutual funds to vote against management, since mutual funds must vote in every firm. Alternatively, if IMs use voting to express friendliness to management, then IMs' votes will be more positive than mutual funds. It is also possible that IMs rely

primarily on other forms of engagement combined with the threat of voting against management at some future point, suggesting that voting against management is a last resort and is less often observed.

Across our entire sample of nearly 1.5 million firm × institution × year SOP votes, average IM voting support is similar to that of mutual funds. This is a surprising finding given that IMs only vote on a subset of their holdings and represent a very different set of investors.

More in-depth analysis reveals significant heterogeneity and provides further insight into the motivations underlying votes. We find that compared to mutual funds, IMs are more likely to agree with management among smaller positions but to oppose management among larger dollar position sizes. This pattern is driven primarily by the same two effects that most influenced propensity to vote: IM size and position size as a fraction of firm equity. First, large IMs are 10 percentage points more likely than large mutual funds to oppose management.[4] Second, among cases where the institution holds an above-median percent of firm equity, the IMs are 8 percentage points more likely than mutual funds to oppose management. As described by the model, these results are consistent with IMs, on average, using voting as a means of monitoring: among larger positions, IMs are both more likely to vote and, conditional on voting, more likely to vote against management. In contrast, if IMs' voting was primarily driven by friendliness toward management or represented a disciplinary threat when engagement failed, then we would expect larger position sizes to exhibit greater support for management.[5]

There exists additional heterogeneity across IM types. We find that the overall

[4]We define a large institution as one with an above-median NAV, where institutions include both mutual funds and IMs.

[5]Additional analyses suggest that selection effects arising from a tendency to 'hold what you like' are not a primary factor. When we compare quasi-indexers to transient investors Bushee (1998), we find no significant differences.

negative relation between position sizes and support for management is primarily driven by mixed asset management. In contrast, both activist IMs and hedge funds' support levels exhibit "U-shaped" relations with position size, suggesting that among the largest position sizes, factors such as friendliness toward management or reliance on other forms of engagement represent key factors. Finally, private wealth IMs are less likely to vote, but more likely to support management across all position sizes when they do vote..

In the last portion of the paper, we explore the effects of this heterogeneity in IMs' voting strategies on the underlying firms. The main takeaway from this analysis is that smaller public firms are less diligently monitored, as measured by propensity for IMs to vote the shares. However, conditional on voting, IMs are more likely to vote against management, providing some evidence of higher agency costs and thus higher demands for monitoring within these firms.

We contribute to several bodies of literature. First, we contribute to the literature on shareholder voting. Studies to date have focused almost exclusively on voting by mutual funds, but mutual funds represent only a minority of aggregate institutional ownership. As shown by Cai, Garner, and Walkling (2009), Ertimur, Ferri, and Oesch (2013), Iliev and Lowry (2015), and Malenko and Shen (2016), mutual funds frequently follow the advice of a proxy advisory service company such as ISS, in particular when the costs of voting exceed the benefits. In contrast, we show that IMs are more likely to either indiscriminately follow management or to refrain from voting in such instances. Importantly, this affects overall vote support.

Second, we contribute to the literature on institutional investors as monitors. If a portfolio firm underperforms, institutional investors can either exert monitoring effort or exit, a choice that is theoretically modeled by Shleifer and Vishny (1986),

Maug (1998), and Kahn and Winton (1998).This choice is influenced by factors such as holding size, holdings duration, costs of obtaining information, governance preferences, and competitors' stakes (see, e.g., Chen, Harford, and Li, 2007; Bushee, 1998; Parrino, Sias, and Starks, 2003; Appel, Gormley, and Keim, 2016; Dimson, Karakas, and Li, 2015; Iliev, Kalodimos, and Lowry, 2021; Lewellen and Lewellen, 2022, among others). Survey evidence by McCahery, Sautner, and Starks (2016) shows how strategies differ across investors. This stream of literature generally categorizes institutions based on their characteristics and then relates these to various proxies for monitoring, such as merger outcomes. In contrast, we take advantage of new data to analyze one of the most direct channels of monitoring, shareholder voting. In this sense, our paper is more closely related to Brav, Cain, and Zytnick (2022)'s analysis of retail shareholder voting.

Finally, we contribute to the literature on SOP and executive compensation. The requirement for SOP votes came out of the Dodd-Frank Act, and it has been a topic of debate since. If CEO compensation is driven by managerial power and board capture, as suggested by Bertrand and Mullainathan (2001), then it is advantageous to provide shareholders with the ability to vote on CEO compensation. Consistent with this view, prior literature finds that firms with high CEO pay are more likely to be targeted by activists, and the introduction of SOP votes leads to decreases in CEO pay (Ertimur, Ferri, and Muslu, 2011; Ferri and Maber, 2013; Correa and Lel, 2016). In contrast, if CEO compensation is driven by efficient contracting, as suggested by Kaplan (2017), then mandatory SOP votes can have unintended consequences. These regulatory requirements expose CEOs to increased risk, which might cause CEOs to demand additional pay. Perry and Zenner (2001), Murphy (2013), and Iliev and Vitanova (2019) find evidence consistent with this

view. Our finding that IMs' voting behavior on these SOP items is best described by monitoring incentives relates to Cunat, Gine, and Guadalupe (2016)'s conclusion that SOP operates as a regular vote of confidence.

2 A Model of Optional Institutional Voting

We develop a discrete choice model to examine the voting behaviors of institutional managers (IMs). We focus on the influence of position size on both the propensity to vote and the direction of the vote.[6]

2.1 Simple Model Setup

We begin with a baseline model. The investor holds a dollar stake s in a firm. The firm faces a potential agency issue; if the investor uncovers the agency inefficiency (with probability p), it votes against management, and this vote increases firm value by V. Therefore, the expected benefit from voting is V with probability p. We assume that voting requires some level of research to determine if a negative vote is warranted and value-enhancing, denoted by a parameter C_R, the cost of research. The investor chooses an action $A \in \{\text{Do Not Vote}, \text{Informed Vote}\}$. The utilities for each action are:

- **Do Not Vote:** The investor avoids all costs. $U_{\text{Do Not Vote}} = 0$.
- **Informed Vote:** The investor must perform fundamental research to determine whether the firm has an agency issue, incurring a cost C_R. On average, the investor votes against in p of the cases and receives utility from the expected portfolio benefit of the improved firm value V, which is proportional

[6]This model is in the spirit of Downs (1957) model, where the institutional manager's decision to vote is modeled as a rational calculation where participation occurs only when the expected benefit of voting exceeds the costs of information acquisition and vote execution.

to her stake s and the probability of uncovering problems p. We assume that the value increase from informed voting is "firm specific" (hence V varies with different firms), and that the investor has a correct estimate about this value before voting. In our simulations, we assume that both the agency conflict V and cost of research C_R vary between firms. Hence, the investor observes the potential benefits and costs from voting research and makes an optimal decision on where to further investigate the voting issue and cast a vote. $U_{\text{Informed Vote}} = s \cdot V \cdot p - C_R$.

For an IM, voting is optimal only if its expected benefits are above the cost. The IM thus maximizes utility as follows:

$$U_{IM} = \max\{0, s \cdot V \cdot p - C_R\} \tag{1}$$

It is obvious that for any non-trivial parametrization the investor will vote on more issues as her stake increases. However, among cases voted, the Say-on-Pay support here will be the same for all votes, as the investor will uncover issues and vote against at the same rate p.

In Panels A and B of Figure 1, we simulate the optimal investor choice to vote and the observed vote direction (For or Against management) for model parameters. We assume that the agency cost parameter V varies between firms, with distributions $V \sim U(0, 100)$. We assume that $p = 0.2$ and $C_R \sim U(0, 15)$. At these parameter values, the propensity to vote increases from 0% to 60% across position size deciles one to ten, and support for management always equals 80%.

2.2 Model with Friendly Voting and Engagement

In this next step, we add two potential actions the investor can take. First, the investor has the option to just vote "Friendly" at a small administrative fee. Second, the investor can engage management and reap a higher benefit. This benefit will again be increasing with the stake of the investor, and the investor will incur a larger cost to research and engage. These extra options now create a four-way choice for an IM:

- **Do Not Vote:** The investor avoids all costs. $U_{\text{Do Not Vote}} = 0$.
- **Informed Vote:** The investor incurs research costs and makes an informed vote $U_{\text{Informed Vote}} = s \cdot v \cdot p - C_R$.
- **Friendly Vote:** The investor incurs a small administrative cost C_a. Voting with management yields a relationship or access benefit from a friendly vote, $U_{\text{Friendly Vote}} = s \cdot F - C_a$.
- **Engagement:** The investor incurs high firm-specific engagement costs: $C_E > C_R > C_a$. The benefits of engagement are convex in position size, consistent with the idea that access to management is a limited commodity and largely limited to investors with the largest stakes. Finally, this investor always votes with management; it relies on behind-the-scenes access to management to lower agency costs, with an implicit threat of more severe action.[7] The expected utility from engagement will be $U_{\text{Engagement}} = s^2 \cdot E - C_E$.

The IM estimates the expected improvement V, expected friendly vote benefit F, and expected engagement benefit E, and maximizes utility by choosing optimal

[7] While outside the framework of this one-period model, intuitively one can think of the engagement investor voting with management while productive talks are occurring, but reserving the right to vote against, i.e., become an 'informed vote', the next period.

action $A \in \{\text{Do Not Vote}, \text{Informed Vote}, \text{Friendly Vote}, \text{Engagement}\}$.

$$U_{IM} = \max\{0, s \cdot V \cdot p - C_R, s \cdot F - C_a, s^2 \cdot E - C_E\} \tag{2}$$

If the investor chooses "Informed Vote" it supports management in $1 - p$ of the cases. If the investor chooses "Friendly Vote" or "Engagement" it supports management in 100% of the cases. Investor voting participation again increases with the stake the IM holds. This is because even a small cost to participate in voting will trigger non-voting.

We now have opposing forces in observed support, and we illustrate how these opposing forces work in Panels C - H of Figure 1. Looking first at Panels C and D, we add friendliness incentives ($F > 0$ and $E = 0$) on top of the 'informed voting' scenario in Panels A and B. We continue to observe that propensity to vote slopes upward, but now voting support slopes downward; at low position sizes the low costs of voting in a friendly manner make this a dominant strategy, and support for management is relatively high. As position sizes increase, the benefits of informed voting become greater, and support for management trends down toward the 80% observed in Panel B.

In Panels E and F of Figure 1, we add engagement on top of informed voting ($E > 0$ and $F = 0$). Consistent with the high costs and convex benefits of engagement, engagement effects only kick in at high position sizes. At low position sizes, support for management is equivalent to that observed in Panel B, and it increases non-linearly at the highest position sizes.

Finally, in Panels G and H of Figure 1, we simulate the optimal investor choice to vote and the observed vote direction (For or Against management) for model parameters where we have both friendliness and engagement ($F > 0$ and $E > 0$).

The U-shaped pattern reflects the combined influence of these factors. At the lowest position sizes, investors either refrain from voting or incur only the low administrative costs of voting that are associated with friendliness-motivated support for management. As position sizes increase, it becomes more optimal to incur research costs and become an informed voter, and thus support for management decreases. Finally, at the highest position sizes, the convex benefits of engagement kick in and support for management again increases.

Overall, the model demonstrates that participation will increase with the investment stake s, but observed voting support might trend downwards and then upwards again as s increases, depending on the costs and benefits from research versus access and engagement.

3 Data and descriptive statistics

3.1 Data sample and institutional details

Our sample consists of publicly traded firms with Compustat data following the implementation of SEC Rule 14Ad-1, which required all IMs to disclose their votes on Say-on-Pay (SOP) proposals. IMs and mutual funds are required to file their Form N-PX by August 31st each year. The forms include IMs' voting policies and the actual votes cast in portfolio companies over the preceding 12 months. The N-PX filings in our sample are primarily filed in August 2024 and August 2025, which include shareholder meetings between July 1, 2023, and June 30, 2025.

From N-PX forms on EDGAR, we scrape all voting information using a Python script. SOP-related agenda items include both the main SOP proposal, which represents an advisory vote on CEO compensation, and the SOP frequency proposal, which represents an advisory vote on whether SOP votes should be every one, two,

or three years. We focus on the main SOP proposals as those are more common and have a unified goal: to approve the CEO compensation package and pay-setting practices. The growing literature on SOP highlights the impacts of votes on these proposals (Cai and Walkling, 2011; Ertimur, Ferri, and Oesch, 2013; Ferri and Maber, 2013; Cunat, Gine, and Guadalupe, 2016; Correa and Lel, 2016; Iliev and Vitanova, 2019).

Each N-PX filer must state whether it is a registered management investment company (RMIC) or an Institutional Manager (IM).[8] RMICs include open-end mutual funds, closed-end funds, and exchange-traded funds (ETFs), and these entities have been required to vote on all proposals since 2003.[9] For brevity, we refer to RMICs as mutual funds.

Under SEC terminology, IMs include all institutions other than mutual funds. In distinct contrast to mutual funds, voting is generally optional for IMs.[10] Many IMs represent investment advisors (e.g., private wealth, hedge funds, and large banks), and as such, they represent fiduciaries who owe their clients duties of care and loyalty. However, the SEC states that an investment advisor "is not required to accept the authority to vote client securities, regardless of whether the client undertakes to vote the proxies itself". Incremental to this, the SEC has stated that an investment advisor and its clients can agree to not cast votes if "voting the proxy exceeds the expected benefit to the client" or "casting a vote would not reasonably be expected to have a material effect on the value of the client's investment" (Securities and

[8]In Internet Appendix Figures IA1 and IA2, we provide examples of the header from the 2025 NPX filing of an institutional manager. We also provide examples of voting tables and xbrl code for the complete submission texts.

[9]Because a mutual fund is the beneficial owner of its portfolio securities, it "has the right and the obligation to vote proxies relating to the fund's portfolio securities" (Securities and Exchange Commission, 2003).

[10]This choice is recognized by the SEC, which explicitly adopted "a streamlined reporting option for managers who have a disclosed policy of not voting proxies and in fact have not voted proxies during the reporting period" (Securities and Exchange Commission, 2019).

Exchange Commission, 2019). For all other IMs, who do not represent investment advisors, basic US corporate law applies, which stipulates that voting is a right but not an obligation. Across all IMs, those who did not vote any shares must stipulate whether it has a 'stated policy to not vote' or whether it 'did not exercise its right to vote'.

We further categorize IMs into hedge funds, private wealth management, and mixed asset management. These classifications are based on data reported in 13D filings and ADV forms, all of which are filed with the SEC. Activist IMs are defined as IMs that file one or more 13D forms within the past three years. We define hedge funds as IMs that report being an advisor to private funds and classify 50% or more of these funds as hedge funds, as listed on ADV forms. Private wealth is defined as IMs whose client base is composed of 75% or more high-net-worth individuals, where these data similarly come from ADV filings. Finally, mixed asset managers represent all other IMs. This category includes many large IMs that represent combinations of the above categories, as well as entities such as banks, pension funds, insurance companies, foreign investors, foundations, and endowments.

We obtain firm financial characteristics from Compustat.[11] We obtain CEO pay data from Execucomp. Finally, because Institutional Shareholder Services (ISS) no longer publicly shares data on its recommendations, we use inferred ISS recommendations as calculated by Zytnick (2025).[12] As described in more detail in Zytnick (2025), the inferred recommendations are based on publicly available institutional voting data, combined with estimated rates at which investors follow ISS

[11]Because 2025 CRSP data was not available at the time of the study, we use Compustat data on price, shares outstanding, and stock share splits to calculate returns. We verified that this data is identical to CRSP returns.

[12]We thank Jonathan Zytnick for making these data publicly available. Over the period for which ISS recommendations are publicly available, these imputed recommendations replicate actual recommendations with 99.6% accuracy.

recommendations.

Figure 2 describes in general terms the ownership and voting of a firm's shares. The full rectangle (areas 1 + 2 + 3 + 4 in the figure) represents total shares outstanding, as listed for example in Compustat. Based on 2025 data, this represents $69.5 trillion in aggregate value. A subsample of these shares is owned by institutional investors who report shares in 13F filings, a total of $48 trillion, which is denoted by areas 1 + 2 + 3. These total institutional holdings consist of three groups: IM holdings that are voted ($16.4 trillion, area 1), IM holdings that are not voted ($23.6 trillion, area 2), and mutual fund holdings, which, by regulatory requirement, all have voted ($8 trillion, area 3).

We describe here the basic approach we use to identify the shareholders belonging to each of these categories in each firm. However, we acknowledge that due to differences in filing requirements across institutional types, there are some shareholders that we cannot classify, and we discuss this as well.

First, we download all NPX forms in the July 2023 – September 2025 period. Second, from the classifications provided on the NPX forms, we separate the filers into mutual funds (technically RMICs) and IMs. Third, we search for the number of shares that each NPX filer owns in each firm. For mutual funds, we assume that the number of shares owned in each portfolio company is equal to the number of shares voted and reported on Form N-PX, as they are required to vote all their shares.[13] For IMs, we match NPX filers to 13F filings, using CIKs. However, there

[13]The majority of RMICs match many-to-one when we try to link them to 13F filers. Vanguard provides an illustrative example. All of Vanguard funds are reported together on one 13F, under the legal name VANGUARD GROUP INC (CIK 0000102909). However, the Vanguard funds are organized under several RMICs, each of which reports its own N-PX, including for example VANGUARD INDEX FUNDS (CIK 0000036405) VANGUARD INTERNATIONAL EQUITY INDEX FUNDS (CIK 0000857489), VANGUARD EXPLORER FUND (CIK 0000034066), and VANGUARD HORIZON FUNDS (CIK 0000932471). Because mutual funds are required to vote all their holdings, we can assume that shares voted equal shares owned.

remain some NPX filers that cannot be reliably matched to 13F data based on CIK numbers.[14] These include, for example, cases where an NPX filer belongs to a bigger financial institution, and the organizational level of the NPX filing differs from the organizational level of the 13F filing. In fact, we observe in the data cases in which one financial institution's NPX and 13Fs can be characterized as one-to-many, many-to-one, or many-to-many. To ensure data accuracy, we use only one-to-one cases.

Through this process, we obtain data on each firm's shareholders, as belonging to areas (1), (2), and (3) of Figure 2. Across all firms, data on mutual funds' shareholdings and votes (area (3)) should be relatively complete, as mutual funds are required to vote all shares. Data on shares held by IMs who did not vote any portfolio companies should also be relatively complete (area (2)). However, as described above, data on IMs that vote (area (1)) cannot all be precisely matched: the $16.4 trillion in this category consists of $10.9 trillion where we can reliably match IM votes (NPX filings) to IM holdings (13F filings) plus $5.5 trillion that cannot be matched. Because our main analyses require holdings data, they are estimated based on the $10.9 trillion subsample. Thus, a conservative interpretation of our results would be that they hold for the institutions in our sample that can be cleanly matched to their 13F filings.

Given that these disclosure rules were implemented in 2023, one question is whether they caused IMs to change their voting strategy. While it is impossible to directly answer this because pre-2023 voting data for IMs are, by definition, unavailable, we provide several pieces of evidence that collectively suggest that there have not been significant changes. First, for each firm in our sample, we determine the percent of total shares outstanding that were voted. The data behind these

[14] We match approximately two-thirds of the IMs that file NPX forms.

figures comes from the aggregate voting results reported in ISS Voting Analytics. In Panel A of Figure 3, we plot these percentages separately for three different types of proposals: SOP, directors, and other (which includes all other management and shareholder proposals). Because the changes to disclosure rules pertained only to SOP proposals, if these disclosure requirements had a significant effect, then we should observe an increase in the percentage of shares voted for SOP relative to these other proposal types. Alternatively, it is also possible that the new disclosure rules caused IMs to pay more attention to all voting, in which case voting rates across all proposal types would increase. However, as shown in Panel A, we see no evidence of either of these patterns: the percent of shares voted exhibits little change in 2024, relative to earlier years.

Second, in Panel B of Figure 3, we plot average support for management across these three proposal types. Again, if the new rule leads to changes in how IMs vote, and because these investors hold so much of the voting power, we would expect to see a sharp change in the aggregate voting support. However, we again see little to no change. In sum, there is little evidence that IMs changed their voting policies in response to these new disclosure rules.[15]

3.2 Descriptive statistics

In Table 1, we provide descriptive statistics across IMs (Panel A), across all institutions (IMs and mutual funds, Panel B), and comparing IMs versus mutual funds (Panel C). For each IM, we measure NAV as the total 13F holdings, and for each mutual fund, we measure NAV as the value of total shares voted (because they are required to vote everything).

[15]We do not have overall voting data from the ISS Voting Analytics dataset for 2025 voting rates, and thus we focus only on the first year (2024) following the disclosure change.

We begin with a discussion of Panel A, which provides descriptive statistics at the IM × year level, a total of 7,800 observations. The average IM has $6,452 million NAV and holds 88 stocks (4.477 in log form). Based on our classifications, 7% of these IMs represent activists, 17% represent hedge funds, and 24% represent private wealth. The remaining 52% represent mixed asset management.

In Panel B of Table 1, we expand the sample to all institution × firm × year observations in which the institution voted on the portfolio firm's SOP policy, where institutions include both IMs and mutual funds. This represents two years of shareholder meetings for most firms, and three years for a minority of firms. Across this sample of nearly 1.5 million observations, 57% represent IMs, and the remaining represent mutual funds. The average institution holds $23 million in the portfolio firm, which represents 0.13% of firm equity and 0.28% of institution NAV. On average, 87.3% of the votes on these SOP proposals are in support of management. The imputed average ISS recommendation is 90.1%, meaning that in 90% of cases, ISS recommends voting in support of management on the firm's SOP proposal.[16] Within this sample of institution × firm × year observations, 3.1% represent cases in which the institution has previously filed a 13D against any firm. On average, the underlying portfolio firms have a mean (median) market capitalization of $59.4 billion ($10.2 billion) and a past one-year return of 14% (10%). Average total CEO pay equals $14 million, of which 83% is performance-based.

In Panel C of Table 1, we compare these characteristics across mutual funds versus IMs. We find that across most of the variables, the differences between the two groups are relatively small in economic terms, albeit statistically significant due in part to the large sample sizes. Exceptions include position value, firm market

[16]ISS inferred benchmark recommendations (from Jonathan Zytnick's website) are only available for 2024, meaning they are only available for approximately half of our sample observations. Data on pay, which comes from Execucomp, is similarly only available for 2024.

value, and CEO pay; we find that, on average, IMs have smaller positions, invest in larger firms, and invest in firms that offer higher CEO pay.[17]

4 Heterogeneity in voting choice, univariate evidence

In Figure 4, we examine variation across investor types in the tendency to vote. Additional detail is provided in Table 2. Panels A and B depict propensity to vote, and here we focus on IMs (rather than mutual funds), for whom voting is a choice. Statistics are based on NPX filings, where the filer either provides details on the shares voted or explains why they did not vote. We plot voting policy across all IMs (left-hand bar) and within each type of IM: activists, hedge funds, private wealth, and mixed asset management. Panel A includes all N-PX filers, and Panel B is restricted to those N-PX filers that we can match to 13F filers. We concentrate our discussion on Panel A, but patterns are largely consistent across the two samples.

Across all IMs, only 44% exercised their right to vote; 33% have a stated policy to not vote, 14% state that they did not exercise their right to vote, and 9% state that their votes were made by other managers. When we subset by type of IM, we see considerable variation. Private wealth investors are least likely to vote, with only 29% voting on any of their shares. A striking 64% of these investors have a stated policy to not vote. In the remaining cases, the private wealth manager either stated that it did not vote in this year (6%), suggesting it might vote in certain cases but chose not to in the issues up for vote during the filing period, or stated that votes were reported by other managers (1%).

Activists and hedge funds have the highest rate of voting, with about 75% of these investor classes voting at least some of their shares. Only 12 – 15% of these

[17] These statistics are based on the subset of IMs included in our main sample, that is, the IMs for which we can match N-PX and 13F filings.

groups have a stated policy to not vote. Finally, mixed asset management falls in between these two extremes, with 40% voting at least a portion of their shares, and 31% having a stated policy to not vote.

Panels C and D of Figure 4 describe the holdings voted by the three precisely-defined IM types, for 2025. Across the three subgroups, activists have both the largest aggregate institutional holdings, approximately $3 trillion, and the largest average dollars voted, approximately $11 billion. Private wealth is the smallest both in aggregate and on average, and hedge funds fall in between.

In Figure 5, we provide univariate statistics on the average voting support across IMs, conditional on the decision to vote. In Panel A, we examine IMs' propensity to indiscriminately follow management, as proxied by voting with management on 99% or more of agenda items across all portfolio firms.[18] We find within every class of IM, the propensity to indiscriminately follow management is greater than that of mutual funds. While only 16% of mutual funds follow this strategy, the rates for activists, hedge funds, and private wealth equal 34%, 43%, and 62%, respectively. This potentially reflects mutual funds' greater propensity to rely on the recommendations of a proxy advisory company such as ISS, using either the benchmark recommendation or a tailored recommendation (Hu, Malenko, and Zytnick, 2025). In Panel B, we plot average support for management across each of the IM classes. Here, results are more mixed. Activists and private wealth are more pro-management than mutual funds, while hedge funds are more anti-management.

[18] We additionally restrict the analysis here to IMs that vote on at least 10 agenda items.

5 IM's voting strategy

In this section, we analyze the voting choice of each IM. In section 4.1, we analyze voting at the IM level, thus capturing whether each IM voted for any of its portfolio companies. In section 4.2, we focus on the IM×portfolio company level, thus enabling us to examine not only whether an IM voted but which individual portfolio companies are voted on and which are not. As such, these tests tests provide initial evidence on the model predictions.

5.1 Analyses at the IM level

To analyze voting choice at the IM level, we estimate a series of regressions at the IM × year level. Our first set of explanatory variables relates to IM size and IM position concentration. Larger IMs and IMs with fewer portfolio firms, all else equal, will tend to have larger positions in portfolio firms. IMs with greater concentration have large positions in a small subset of firms. As laid out in the model, irrespective of the motivation for voting (informed voting, friendliness, or engagement), greater position size is positively related with predicted propensity to vote.

Our second set of factors captures overall activism tendencies. Activists are more likely to have a governance focus, and the fact that they have filed at least one 13D in the past potentially gives it more bargaining power against portfolio firms. Private wealth IMs are arguably least likely to focus on governance and monitoring, in part because they are smaller and thus less able to effect change in firms. Finally, hedge funds lie between these two extremes, in both strategy and size.

In Table 3, we estimate three regressions, each at the IM×year level. In column 1, the dependent variable is an indicator variable equal to one if the IM voted for

any of its portfolio firms, zero otherwise. In columns 2 and 3, the dependent variable is an indicator variable equal to one if the IM voted on most of its positions, defined as 90% or more. Across columns 1 and 2, we include all IMs, whereas in column 3, we restrict the sample to IMs that voted at least some of their portfolio firms. Continuous independent variables are standardized, such that coefficients reflect the effect of a one standard deviation change. For indicator variables, coefficients reflect the effect of going from a value of zero to one.

Results are broadly consistent with predictions. Looking first at column 1, a one standard deviation increase in ln IM NAV is associated with a 35.1 percentage point higher likelihood of voting at least some portfolio positions.[19] However, when NAV is spread across more portfolio firms, this effect is mitigated or even reversed. A a one standard deviation increase in the number of portfolio firms is associated with a 38 percentage point lower likelihood of voting at least some portfolio positions. Activists and hedge funds are significantly more likely to vote compared to mixed asset management, while private wealth is less likely.

Results in columns 2 and 3 show that IM size is also positively related to the likelihood of voting for most positions. However, more concentrated positions are less likely to vote on all their positions, consistent with them focusing their efforts on the subset of large holdings. Interestingly, while activists and hedge funds are more likely than other IMs to vote, they are less likely to vote on all their positions. In contrast, private wealth holders are overall less likely to vote, but when they do vote, they are more likely to vote for most of their positions.

[19]In Table 3, we standardize all continuous variables so that we can compare the economic magnitudes from changing a one standard deviation of the independent variables.

5.2 Analyses at the IM x portfolio firm level

Analyses at the IM x portfolio firm level enable us to examine predictions from the model more directly. We begin in Panel A of Figure 6 by investigating the influence of dollar position size, and we then examine a broader set of determinants in Table 4.

Looking first at Panel A of Figure 6, we form deciles based on dollar position sizes across all institution × firm × year observations. We plot the average propensity to vote across each position size decile, after controlling for firm and meeting characteristics. Specifically, we estimate a regression where the dependent variable is an indicator value equal to one if the IM voted, zero otherwise. Independent variables include an indicator variable for each position size decile and meeting fixed effects to soak up all other firm and agenda item characteristics. We observe that propensity to vote increases monotonically, from less than 20% in the lowest decile to close to 70% in the highest decile.[20]

In Table 4, we limit the sample to the subset of IMs that voted at least some positions, and we examine a broader set of variables related to position size. We estimate regressions at the IM × year × portfolio firm level, where the dependent variable is an indicator equal to one if the IM voted on the portfolio firm's SOP policy, zero otherwise. First, we include three variables that capture the size of the IM's investment in the firm: log of position value (in dollars), percent of firm value (where value is measured as firm market capitalization), and percent of IM NAV (where NAV voted is measured as dollar value of shares with an SOP vote). Second, we include measures of the portfolio firm's financial characteristics: past

[20]This figure is based on all IMs, irrespective of whether they voted. In Figure IA6, we plot a similar figure based on the subsample of IMs that voted at least some portfolio firms. Patterns are similar, with the probability of voting increases monotonically from 49% among the first decile of dollar holdings to nearly 80% within the largest decile.".

12-month return, log(market capitalization), cash dividends (an indicator variable), book leverage, cash holdings, and capex / assets. Finally, we include IM-level variables used in Table 3. Column 1 has industry × year fixed effects, and column 2 has firm and year fixed effects. Independent variables are again standardized, similar to Table 3.

These regressions provide further evidence consistent with model predictions regarding the influence of position size. In economic terms, a one standard deviation increase in position value is associated with a 9 – 12% higher propensity to vote. Incremental to this, the position as a percent of firm value is also positively related to voting propensity, though economic significance is lower.

Coefficients on IM characteristics are consistent with predictions. Larger IMs are significantly more likely to vote, with a one standard deviation increase in IM NAV associated with a 9 – 12% increase in propensity to vote. IMs that hold positions in multiple firms are less likely to vote on a given portfolio firm. Given that the sample is restricted to IMs that vote on at least some portfolio companies, this is consistent with predictions that such IMs vote on a smaller subset of their holdings.

Consistent with the monitoring channel, we find some evidence that IMs are more likely to vote on portfolio firms with lower returns, as shown in column 1. However, this significance disappears once we control for firm fixed effects, as shown in column 2. We examine monitoring in more depth in the next section.

6 IMs support versus opposition to management

Having established the determinants of IMs' decisions to participate in voting and decisions of which portfolio firms to vote on, we now turn to the direction of their

votes on these SOP issues. In section 6.1, we present regressions across all IMs, and we then turn in section 6.2 to variation across types of IMs.

6.1 Voting support among IMs versus mutual funds

Results to this point suggest that IMs take a different strategy toward monitoring than mutual funds. IMs are less likely to vote than mutual funds (Figure 4) and, conditional on voting, they are more likely to indiscriminately follow management's recommendations (Panel A of Figure 5), both of which suggest a lower overall propensity to monitor. However, in spite of a higher percentage of IMs simply following management, it is not clear whether IMs' average support for management differs markedly from that of mutual funds (Panel B of Figure 5). In this section, we seek to better understand the determinants of IMs' monitoring, or lack thereof.

In Table 5, we estimate regressions at the institution × portfolio holding × year level, where institutions include both mutual funds and IMs. The dependent variable equals institution support for management on the SOP proposal, which is measured in percentage terms and varies between 0 and 100.[21] Looking first at column 1, independent variables include a mutual fund indicator and an IM indicator; there is no constant, and there are no fixed effects. Coefficients indicate that average mutual fund support (across the whole sample) is 87.168%, compared to 87.413% among IMs. In other words, on average across the whole sample, without controlling for which firms institutions hold, or which firms IMs tend to vote on, there is almost no difference between the tendency of mutual funds versus IMs to support management.

[21] While this measure equals 0% or 100% for most cases, in 1.16% of the voting observations the manager reports some shares voted for and some against a proposal. For example, mutual funds inside an RMIC might vote differently. Similarly, some IMs vote shares differently, potentially upon instruction from the ultimate owners.

Column 2 employs a slightly different specification but provides the same takeaway. Here, we include an IM indicator and a constant, meaning that mutual funds represent the omitted category. Thus, the IM indicator captures the incremental voting support among IMs compared to mutual funds. Consistent with results from column 1, we see that there is only a 0.245% difference in support for management.

In column 3, we add meeting fixed effects, meaning we contrast the voting support of IMs versus mutual funds within the same SOP proposal at the same firm.[22] We additionally control for the size of IM, the size of IM position, IM position as a percent of IM NAV, and IM position as a percent of firm market capitalization. The overall takeaway is again similar: we observe very little difference between IM support and mutual fund support. The IM indicator is close to zero and statistically insignificant. In sum, conditional on voting, IMs tend to vote very similarly to mutual funds, on the same agenda item within the same firm.

6.2 Heterogeneity across position size

The similar level of support between IMs and mutual funds is striking. However, the model suggests that this likely masks significant heterogeneity. Observed votes represent the joint decision of both whether to vote and, conditional on voting, whether to support management. Earlier results showed that position size is one of the most important determinants of propensity to vote (see also, for example, Iliev and Lowry (2015) and Schwartz-Ziv and Wermers (2022)). If this pattern is driven by increasing informed voting, then we should also observe a higher likelihood of voting against management in these cases. Alternatively, if this greater propensity is driven by greater incentives to be friendly toward management or to rely primarily on engagement, then we would expect a higher likelihood of voting for management.

[22]Because we focus only on SOP proposals, there is only one agenda item per meeting.

We examine these contrasting conjectures in this subsection.

In Table 6, we estimate regressions similar to those in Table 5, but here we focus on interactive effects between voter type (IM or mutual fund) and position size. The sample similarly consists of all mutual funds and IMs, and the dependent variable equals one if the institution voted with management, zero otherwise. To facilitate interpretation, we use indicator measures of all position size variables. Specifically, *Large position*, *Large NAV*, *Large %NAV*, and *Large % firm equity* represent indicator variables equal to one if the underlying continuous variable is above-median, zero otherwise. We then interact each of these variables with IM. We include meeting fixed effects in all regressions, meaning we capture differences between mutual funds and IMs within the same SOP proposal at the same firm.

Looking first at column 1, compared to mutual funds, IMs are 2.77 percentage points more positive than mutual funds on their small positions (as reflected by the coefficient on IM). However, they are 2.4 percentage points more negative on their large positions (as reflected by the sum of the coefficients on IM and IM $\times$ Large position.)

The contrast between IMs and mutual funds is illustrated in Panel B of Figure 6. We plot regression coefficients in a manner similar to Panel A., except that here we focus on support for management among IMs compared to among mutual funds. Specifically, we estimate a regression where the dependent variable is Fund support for management, the sample consists of mutual funds and IMs, and independent variables include an indicator variable for each position size decile and each decile interacted with IM. We additionally control for meeting fixed effects to soak up all other firm and agenda item characteristics.

The figure plots average support for management among IMs (green dashed

line) compared to mutual funds (black solid line), across each position size decile. While mutual funds exhibit a nearly monotonic increasing support for management across positive size deciles, IMs exhibit a nearly monotonic decreasing support. The contrast is striking.

These findings suggest that compared to mutual funds, IMs are less diligent monitors on their small positions: they are less likely to vote, and when they do vote, they are more likely to simply vote with management recommendations. In contrast, they are more diligent monitors on their large positions: they are both more likely to vote and more likely to vote against management. The observed pattern of IMs' voting is most similar to Panel D of Figure 1, where friendliness toward management and an overall lack of monitoring dominates voting of low position sizes but informed voting represents a more important factor among large positions. In contrast, mutual funds are significantly more positive toward management among larger positions, consistent with them prioritizing friendliness toward management and/or engagement.[23]

Subsequent columns of Table 6 examine factors that relate to position size: IM size, Position as a percent of NAV, and Position as a percent of firm equity. Column 5 includes all measures together in one specification, and we focus our discussion here. We find that IM size has the largest magnitude effect: relatively to their equally sized mutual fund counterparts, small IMs are 2.0 percentage points more positive whereas large IMs are 6.5 percentage points more negative. The next most economically significant effect is Position as a percent of firm equity: compared to mutual funds with similar sized positions, IMs with small positions are 1.9 percentage points more negative whereas those with large positions are 1.3

[23]Recent research by Heath, Macciocchi, and Ringgenberg (2025) explores the economic incentives and trade-offs underlying various forms of mutual fund engagement.

percentage points more negative. Similar effects are observed for Position as a percent of fund NAV, but effects are somewhat smaller. These findings provide further evidence in support of the monitoring channel. When the IMs are larger and when they own a larger percentage of firm equity, their ability to influence the firm is greater. In these cases, the tendency to monitor the firm is greater. This more intense monitoring results in a greater likelihood of uncovering any problems at the firm, including, for example, higher agency costs. As a result, we observe higher rates of opposition to management.

Figure 7 provides further evidence that the more intense monitoring of larger positions, as reflected by a greater propensity to vote against management, is driven primarily by large IMs. The figure is constructed similarly to Panel B of Figure 6, where each line reflects coefficients on IM multiplied by each decile, from regressions in which the dependent variable is support for management, and we include meeting fixed effects. Two patterns stick out. First, across every size decile, large IMs are more negative than small IMs, consistent with them engaging in more monitoring. Second, large IMs are more negative among their larger positions, consistent with a greater propensity to monitor in these cases. In contrast, small IMs exhibit more of a U-shaped pattern.

We find some evidence that the above patterns are stronger among cases where the fund has held the firm for a longer time. As shown in Figure IA3, we split funds into long held position versus short held positions, based on median holding period. Panel A shows that across every decile, the propensity to vote is greater among long held positions. Moreover, Panel B shows that the downward sloping propensity to support management is also more pronounced among long held positions.

If IMs' SOP votes reflect informed opinions regarding the firm, a type of confi-

dence vote as suggested by Cunat, Gine, and Guadalupe (2016), then under certain assumptions IMs should be more likely to sell following an against vote. Specifically, this would be the case if the against vote did not result in immediate action by the firm and if any negative valuation effects (as assessed by the IM) were not fully incorporated into price. Consistent with this conjecture, in Figure IA4, we show that for every decile position holding, IMs who voted against management are significantly more likely than other IMs to sell during the following quarter.

In Figure IA5, we explore the possibility that a tendency to 'hold what you like' affects observed vote support. We separate IMs into those who are most likely to follow a passive index strategy versus those that are the most active traders. Specifically, we compare Quasi-indexer IMs versus Transient IMs, based on the methodology of Bushee (1998). We find no significant difference, suggesting this is not a driving factor.

In aggregate, these results provide several takeaways. First, they highlight significant differences in the monitoring propensity of IMs versus mutual funds. All institutions must consider the costs and benefits of voting, and the costs are more likely to exceed the benefits in small positions. Mutual funds, which have a fiduciary duty to vote all shares, tend to follow ISS in such cases (see, e.g., Iliev and Lowry, 2015). In contrast, our results suggest that IMs either abstain from voting or follow management in such cases. It is possible that since IMs are not required to vote, fewer subscribe to ISS. Second, among their largest and thus most important positions, we find that IMs employ voting as a form of monitoring much intensely than mutual funds. In these cases, IMs are significantly more likely to vote against management. The large magnitude of these differences highlights their relevance for the underlying portfolio firms.

6.3 Heterogeneity across IM types

Earlier results show that there is considerable variation across IM types, for example, activists, hedge funds, private wealth, and mixed asset management. This variation includes propensity to vote, propensity to indiscriminately follow management, and average support for management. We explore this in more detail in this subsection.

We begin our discussion with Figure 8, where Panel A focuses on propensity to vote across position deciles, and Panel B focuses on support for management. Each figure includes four lines, one for each type of IM: activists (black solid line), hedge funds (green dashed line), private wealth (blue dashed line), and mixed asset management (brown dotted line). In Panel A, we estimate regressions of each IM type's propensity to vote as a function of position size, controlling for all firm and SOP proposal characteristics via meeting fixed effects. Similar to prior figures, we measure position size using decile bin indicators, where deciles are formed based on IM dollar position size.increases with position size for all IM types, as shown in Panel A.[24] In Panel B, we plot coefficients from similar regressions, with the exception that the dependent variable is an indicator variable equal to one if the IM voted for management.

Looking first at Panel A, we find that the propensity to vote increases for all IM types. The only slight exception is a downward sloping pattern for hedge funds between deciles one and three; between deciles 3 and 10, we observe the familiar upward sloping pattern. This consistency is consistent with predictions of the stylized model, where propensity to vote is an upward sloping function of position size,

[24]Decile bin breakpoints are formed across all IMs. In Panel A of Figure 8, we include all IMs, irrespective of whether they voted on any portfolio firms. However, patterns are robust to limiting the sample to those IMs that voted on at least some portfolio holdings, as shown in Internet Appendix Figure IA7.

irrespective of the motivation to vote.

Turning to Panel B, the negative relation between position size and support for management is strongest among mixed asset management. Interestingly, both activists and hedge funds exhibit more U-shaped relations: they are more pro-management among both their smaller positions and their larger positions, but more anti-management among deciles 3 – 6. Broadly, this U-shaped pattern is consistent with multiple factors driving the voting behavior of activists and hedge funds. On the one hand, greater incentives to monitor larger positions contribute to a negative relation between position size and support for management, that is, a downward slope. On the other hand, the tendency to prioritize engagement, combined with incentives to be friendly toward management to obtain soft information, contributes to a positive relation, that is, an upward slope.

In Table 7, we estimate regressions that statistically compare patterns across each of these four IM types. In each column, we compare one IM type to all other IMs. For example, in column 1, the independent variable of interest is *Activist*, and the benchmark category includes Hedge funds, Private wealth, and Mixed asset management. In column 2, the independent variable of interest represents *Hedge fund*, and all other IM types represent the benchmark category. Regressions are structured similarly in columns 3 and 4, but the independent variables of interest are *Private wealth*, and *Mixed asset management*, respectively. Results in columns 1 – 4 indicate that, on average, activists tend to be the most pro-management. In economic terms, their support for management is 4.8 percentage points higher than that of other IMs. This is arguably surprising, given that we tend to think of activists as putting the most pressure on management and being most influential in decreasing agency costs.

Private wealth is also relatively pro-management, an average of 3.5 percentage points higher than all other IMs. This is consistent with these types of IMs being less active monitors, in line with their smaller positions and lower ability to actively influence management. But again, it is perhaps surprising that their average support levels are similar to those of activists. We find that mixed asset management is the most anti-management, with an average of 3.6 percentage points lower support. These IMs are relatively large, which potentially contributes to stronger monitoring capacity. However, they are smaller than activists, suggesting that this cannot entirely explain the observed patterns.

In columns 5 – 8, we include each IM type and also an interaction variable for the IM type times large position, where large position is defined as an indicator variable equal to one if the dollar position is above the median. Results are broadly consistent with patterns observed in Figure IA7. First, all IM types tend to be more negative among their larger positions; summing the coefficients on *Large Position* and *Large position x IM type* is negative in all cases. This is consistent with all IM types using voting as a form of monitoring, as described by the model. Second, the negative interaction term on *Mixed asset management x Large position* indicates that this downward slope is much steeper for this group relative to other IM types. As illustrated in Figure IA7, activists, hedge funds, and private wealth tend to have more U-shaped patterns.

In sum, it is striking that institutions commonly associated with monitoring, for example, activists and mutual funds, tend to be more pro-management among larger positions. These represent positions for which the incentives to monitor, to be friendly toward management, to imply hold what you like, and to prioritize other forms of engagement are stronger. Across all these factors, it seems that incentives

to monitor via voting are weakest for mutual funds and strongest for mixed asset management.

7 Heterogeneity across portfolio firms

In this final section of the paper, we consider heterogeneity across portfolio firms. Prior results suggest that IMs' voting behavior varies with position size. In this section, we examine whether we observe similar variation by firm size. If IMs pay less attention to small firms, then monitoring intensity may be lower in such cases.

In Panel A of Figure 9, we plot the percent of IM shares that are voted within each decile. Consistent with our conjecture, we find a strong positive relation between shares voted and firm size. Within the smallest deciles, only about 60% of IM shares are voted. In contrast, within deciles seven to nine, about 68% of shares are voted. Interestingly, the percentage is somewhat lower among the largest decile ten firms, at 64%. Looking at Panel B, the results provide more direct evidence on monitoring. Results indicate that among shares voted, support for management is lower in smaller firms.

Table 8 examines these trends through a series of regressions. The sample consists of IM $\times$ portfolio firm $\times$ meeting observations. In columns 1 and 2, the dependent variable equals one if the IM voted on the firm's SOP policy, zero otherwise. In columns 3 and 4, the sample is limited to cases where the IM voted, and the dependent variable equals the percent support for management on firm Say-on-Pay votes. Independent variables of interest equal *Large firm* and *Small firm* indicator variables, defined as an indicator if firm size was in the top tercile and bottom tercile, respectively, zero otherwise. Columns 2 and 4 additionally include IM and firm controls as well as industry $\times$ year fixed effects.

Consistent with inferences from the figures, results indicate that small firms have significantly fewer shares voted and, among shares voted, have less support for management. In sum, smaller firms receive less attention from IMs. However, conditional on receiving attention, IMs are more likely to oppose management. One potential explanation is that small firms are not large enough for the benefits of voting to exceed the costs, across most IMs. As a result, rates of voting are lower among these firms. These lower rates of attention potentially contribute to higher agency costs among such firms, and consistent with this, the subset of IMs that choose to vote are more likely to vote against management.

8 Conclusion

Unlike mutual funds, voting represents a choice for most institutional investors. We refer to all institutional investors other than mutual funds as IMs. IMs can have a larger impact on the governance of portfolio firms than mutual funds, as evidenced by both the greater dollar value of shares voted and the fact that they hold further shares that they opt to not vote.

While mutual funds' voting behavior has been extensively studied, we know little about IMs. We take advantage of newly required disclosures by IMs to conduct an extensive analysis of IMs' votes on SOP proposals. We find that IMs differ from mutual funds in several fundamental ways. First, only 44% of IMs vote on any of their total portfolio holdings, compared to the required 100% among mutual funds. Second, the voting rates are lowest among low-position holdings and among small firms, for which the costs of voting are more likely to exceed the benefits. Third, conditional on voting, IMs tend to be more pro-management than mutual funds on smaller positions, but more anti-management on larger positions. In aggregate,

our results suggest that compared to mutual funds, IMs are weaker monitors across smaller positions and stronger monitors within larger positions.

Finally, this has implications for the underlying portfolio firms. Smaller firms tend to receive less voting attention, but shares voted tend to receive more anti-management pressure, which collectively suggests more agency costs within such cases.

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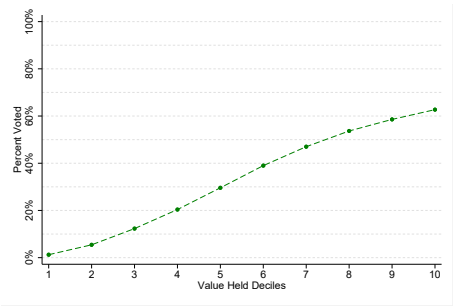
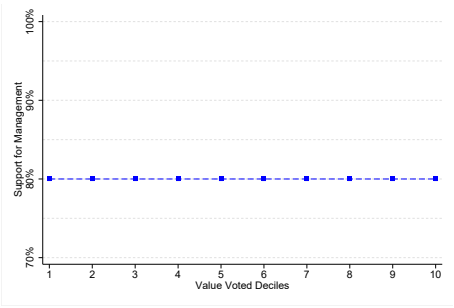
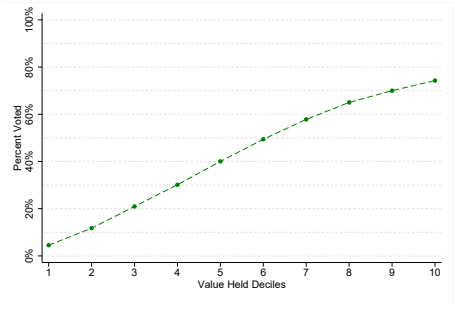


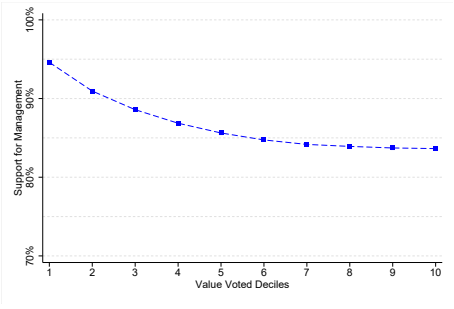
Panel A: Choice to Vote



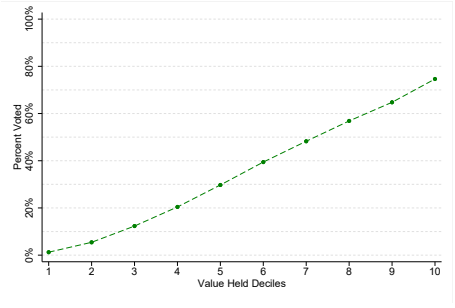
Panel B: Support For Management



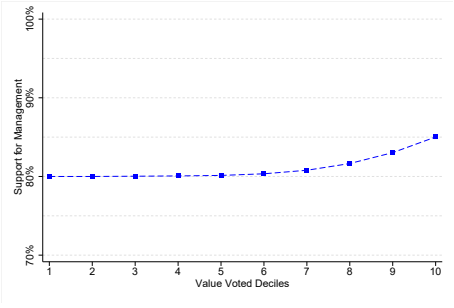
Panel C: Choice to Vote



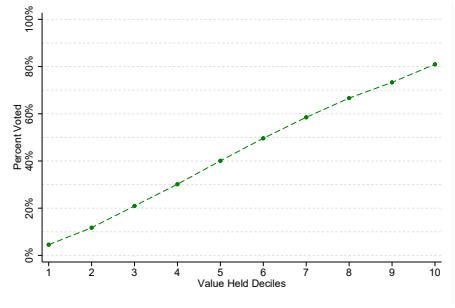
Panel D: Support For Management



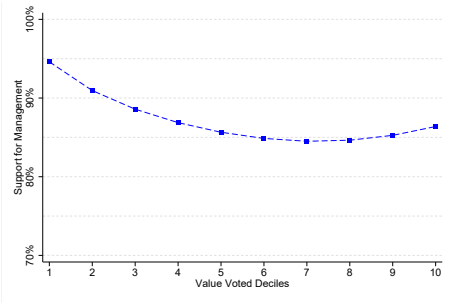
Panel E: Choice to Vote



Panel F: Support For Management



Panel G: Choice to Vote



Panel H: Support For Management

Figure 1: Participation and Support in a Model of Optional Investor Voting

See Section 2 for model details. The cost functions for research are $C_a \sim U(0,5)$, $C_R = C_a + \sim U(0,10)$, and , $C_E = C_a + C_R + \sim U(0,5)$. The benefit from voting $V \sim U(0,100)$, and $p = 0.2$. In Panel A and B, we set $F = 0$ and $E = 0$. In Panel C and D, we set $F = 2$ and $E = 0$. In Panel E and F, we set $F = 0$ and $E = 10$. In Panel G and H, we set $F = 2$ and $E = 10$.

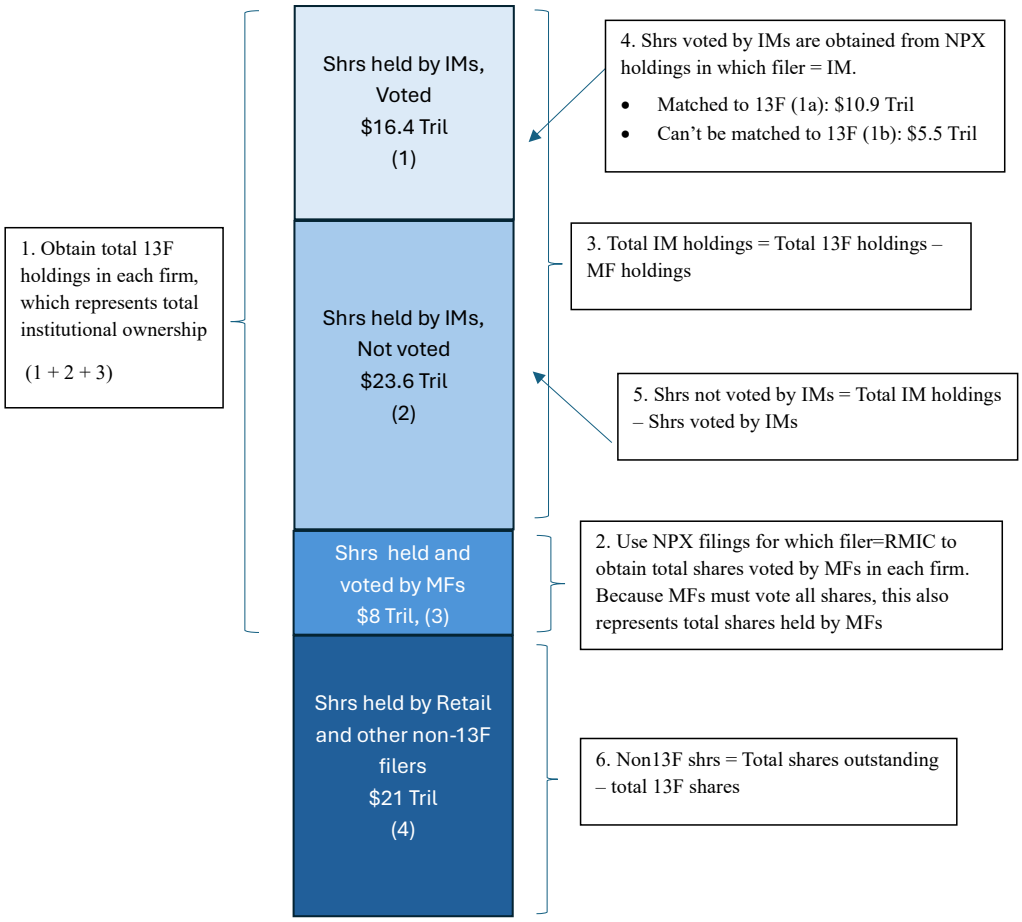
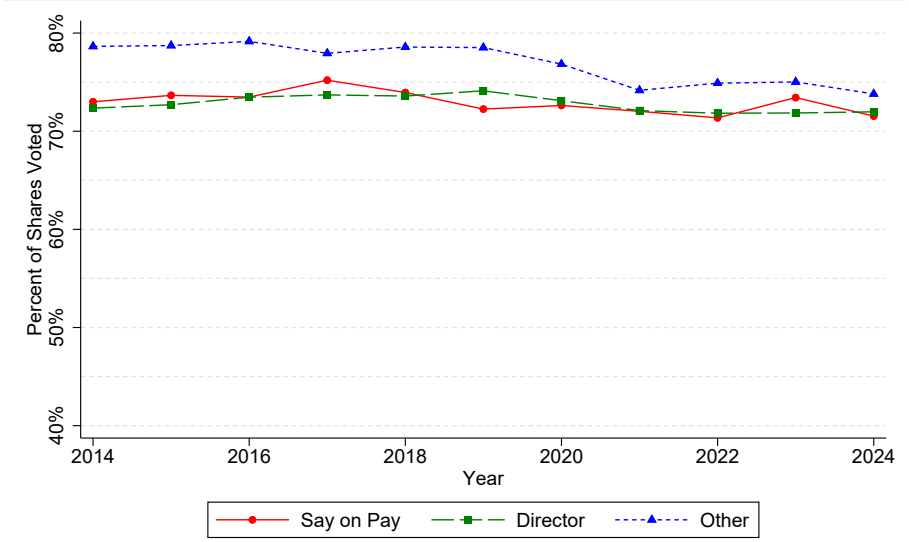
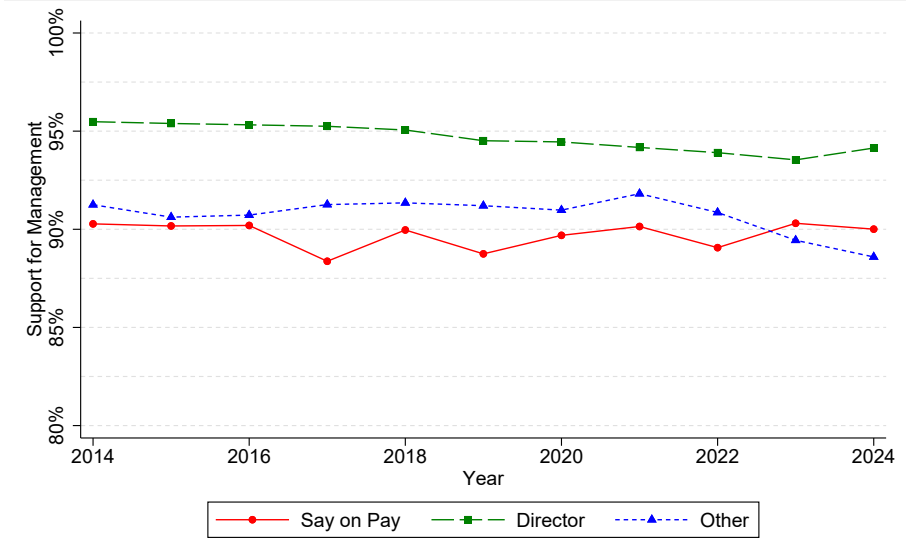


Figure 2: Estimation of shares held by each investor class

This figure provides an overview of the data. Each step is discussed in more detail in the Data section. The size of each rectangle corresponds to the size of the holdings of each group. Based on 2025 data, the approximate value of each category is denoted. Total aggregate firm values = $69.5 trillion (1 + 2 + 3 + 4). Total value held by institutional managers, as measured through 13F filings = $48 trillion (1 + 2 + 3). Total value voted, as reported on N-PX forms = $24.4 trillion (1 + 3). Total value voted by IMs = $16.4 trillion (1), which is further broken down into the subset that can be matched to 13Fs (1a, $10.9 trillion) and the subset that can't be matched (1b, $5.5 trillion). Total value not voted by IMs = $23.6 trillion (2). Total value voted by mutual funds = $8 trillion (3). Total value not held by 13F filing institutions, which includes shares held by retail, smaller institutions, and some foreign filers, equals $21.5 trillion (4)



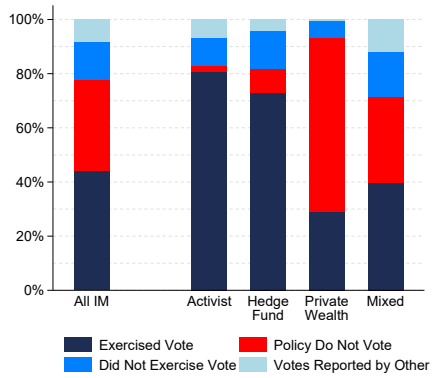
Panel A: Propensity to vote



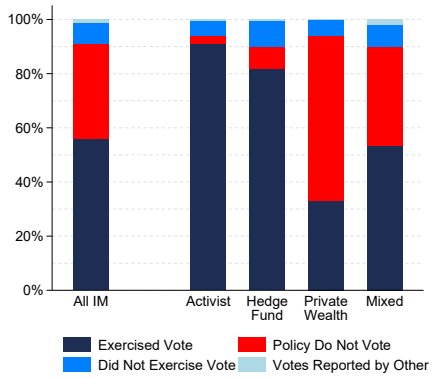
Panel B: Support for management

Figure 3: Do IMs change their voting strategy after 2023 disclosure rule?

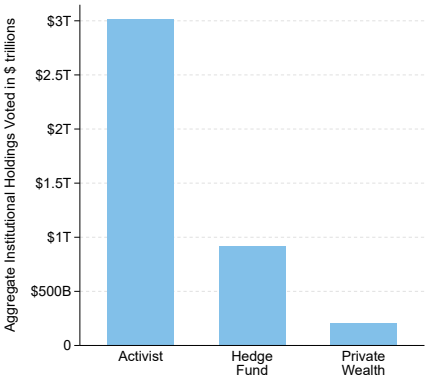
In Panel A, we plot the percentage of total shares voted across all publicly traded firms, for three different types of agenda items: say-on-pay (the red solid line), directors (the green, long-dashed line), and other (the blue, short-dashed line). In Panel B, we plot the average support for management each year, across these same three types of proposals. Years represent calendar years in which annual meetings occurred. The year 2024 represents the first year for which IMs were required to disclose votes regarding SOP agenda items.



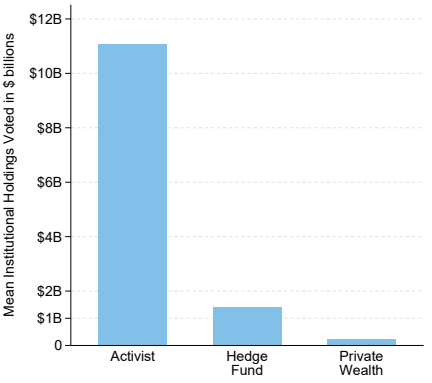
Panel A: All N-PX Filers



Panel B: N-PX Filers Matched to 13F Filers



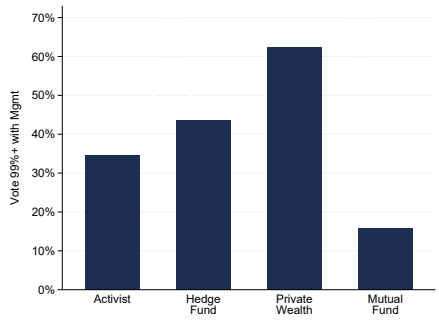
Panel C: Aggregate holdings voted



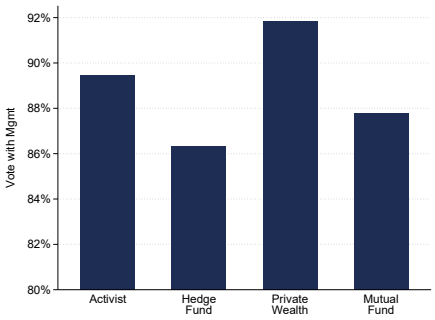
Panel D: Mean holdings voted

Figure 4: Propensity to Vote at Investor Level

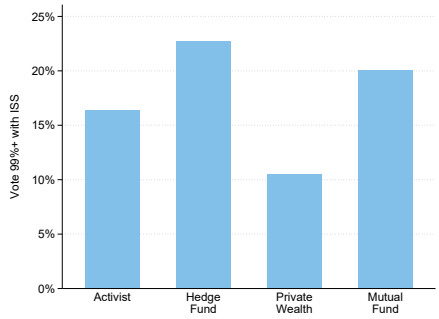
Panels A and B depict the fraction of Institutional Managers (IMs) that fit into each of 4 categories: 'Exercised vote' (meaning they voted in at least some portfolio firms), 'Policy to not vote', 'Did not exercise vote' (meaning they did not vote in any portfolio firms), and 'Votes reported by other' (meaning that shares were voted in at least some portfolio firms but these votes are reported by other entities). The left-hand bar shows all IMs, and the subsequent bars show subsets of IMs: activists, hedge funds, private wealth, and mixed asset management. Panel A includes all N-PX filers, and Panel B includes the subset of N-PX filers that can be matched to 13F filers. Panels C and D show information on the holdings of IM subgroups in 2025. Panel C shows aggregate holdings that were voted on by each of these groups, and Panel D shows the mean holdings voted for each IM within each of these groups.



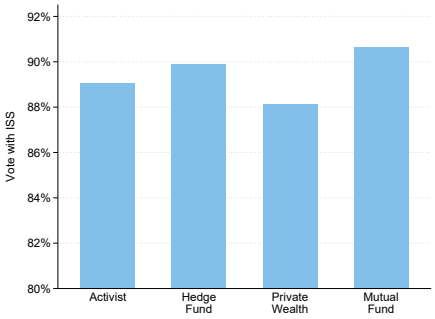
Panel A: Indiscriminately follow mgmt.



Panel B: Average support for mgmt



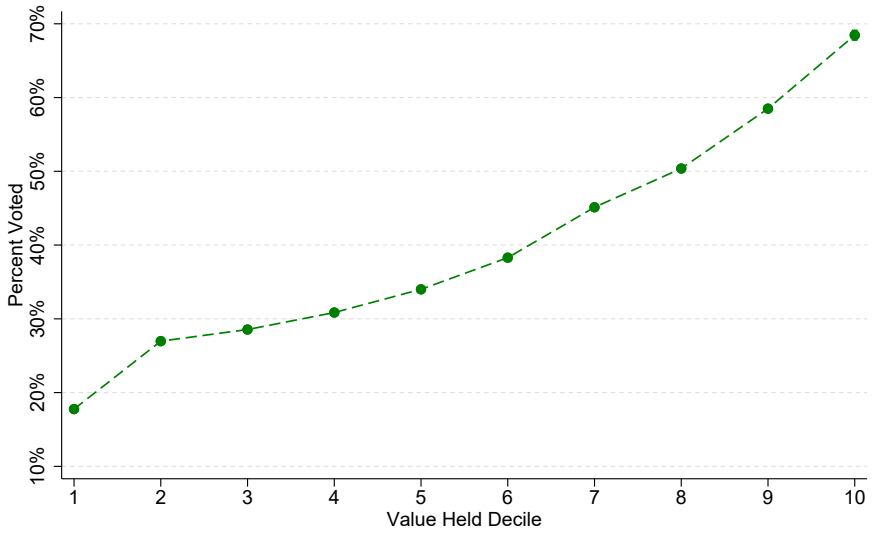
Panel C: Indiscriminately follow ISS



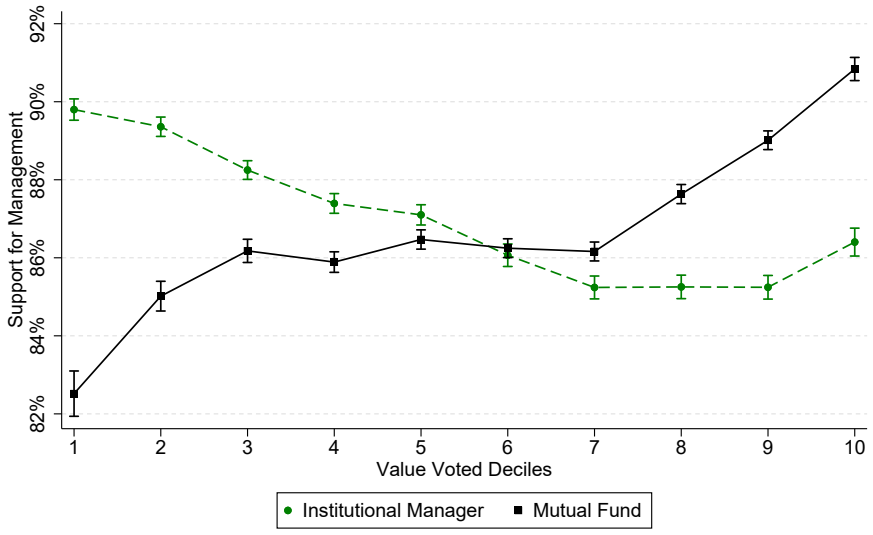
Panel D: Average votes with ISS

Figure 5: Propensity to vote with management or ISS

Panel A shows the propensity of each Institutional Manager (IM) type and mutual funds to always vote with management, which is defined as voting for management on Say-on-pay (SOP) agenda items, across 99% or more of all portfolio firms. The sample is restricted to IMs that vote on at least 10 such agenda items. Panel B shows average support for management, calculated as the average across all votes by each IM type and by mutual funds. Panels C and D show analogous statistics for voting in line with ISS inferred benchmark recommendations. In each panel, IM types include activists, hedge funds, and private wealth.



Panel A: Propensity to Vote by Position Size



Panel B: Support for management

Figure 6: Support for Mgmt by Position Size

Panel A shows average propensity to vote across Institutional managers (IMs), within each dollar position size decile. Panel B shows support for management across these same deciles, for both IMs and mutual funds. In each case, we plot values that are recovered from a regression. For Panel A, the sample consists of IM × portfolio firm × year, and we regress Vote, which is the IM support for management, on position size decile indicators and meeting fixed effects. For Panel B, we form a sample of both IMs and mutual funds, and we regress Vote with management on decile bin indicators, decile bin indicators interacted with IM, and meeting fixed effects. In each case, we cluster standard errors at the meeting level. From each regression, we recover and plot predicted values for each decile, and vertical lines represent 5% and 95% confidence intervals. The second panel is restricted to institutions who vote on at least some positions.

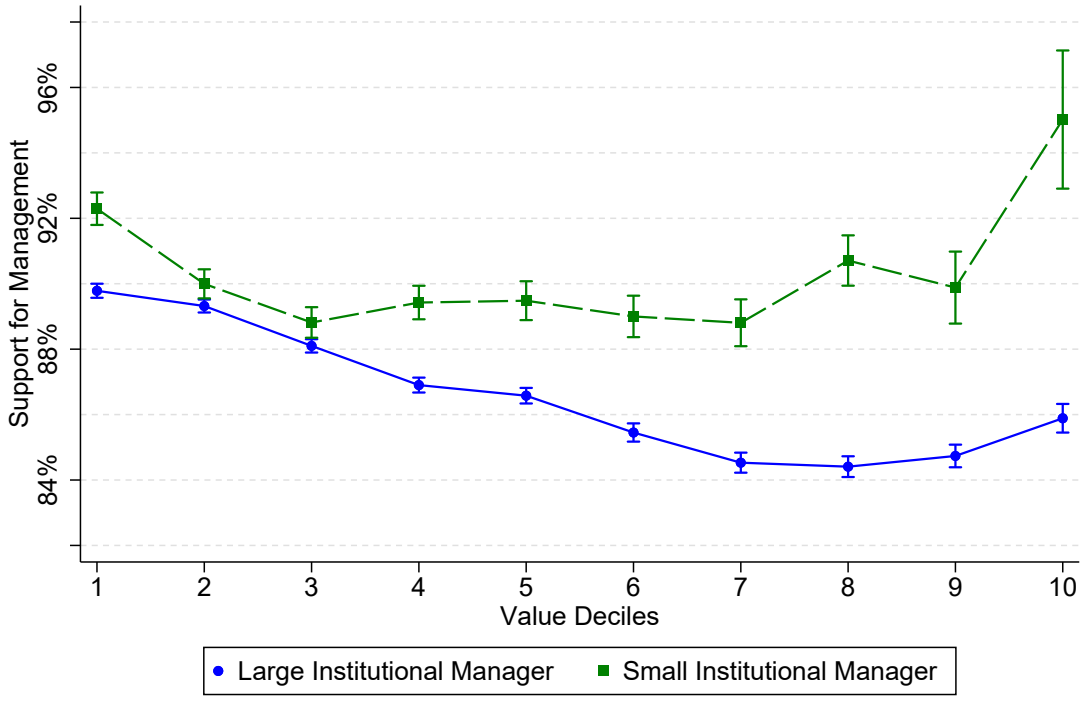
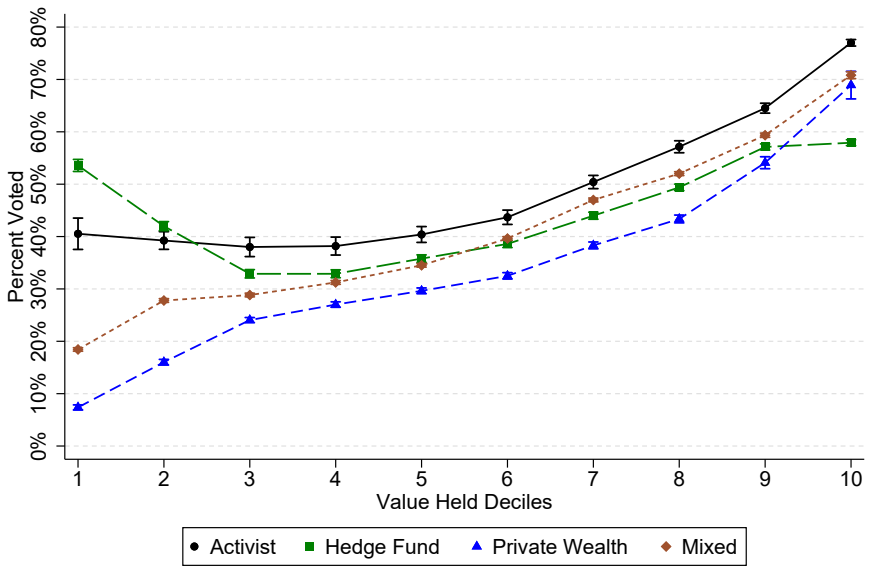
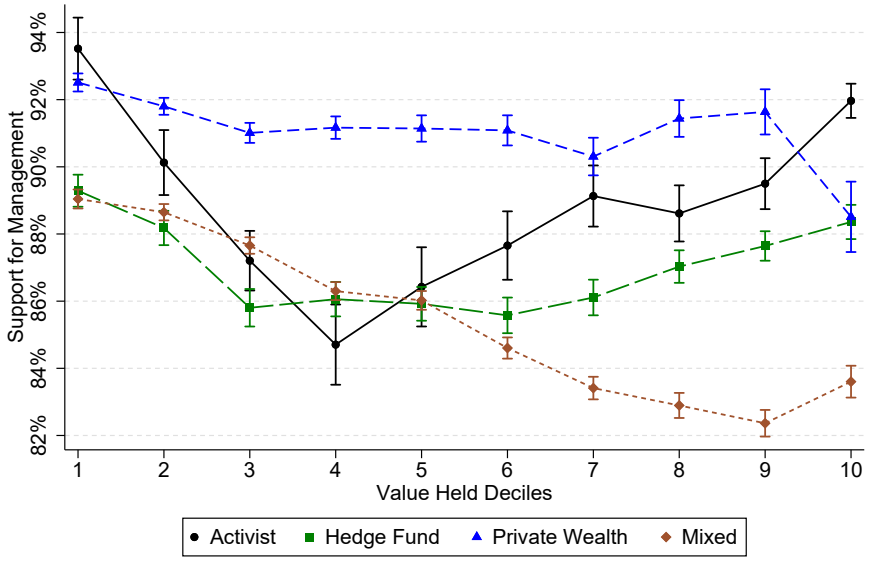


Figure 7: Variation across large vs small IMs, across deciles of IM dollar position size

This figure shows predicted support for management among small IMs (dashed green line) versus large IMs (solid blue line), within each position size decile. Deciles are calculated as described in Figure 4. To calculate predicted support for management, we form a sample of IMs, and we regress Vote with management on decile bin indicators, decile bin indicators interacted with Large IM, and meeting fixed effects. Large IMs are defined as IMs with above-median NAV, and all other IMs are defined as small IMs. We cluster standard errors at the meeting level. From this regression, we recover and plot predicted support for management, and vertical lines represent 5% and 95% confidence intervals. The sample is restricted to institutions that vote on at least some positions.



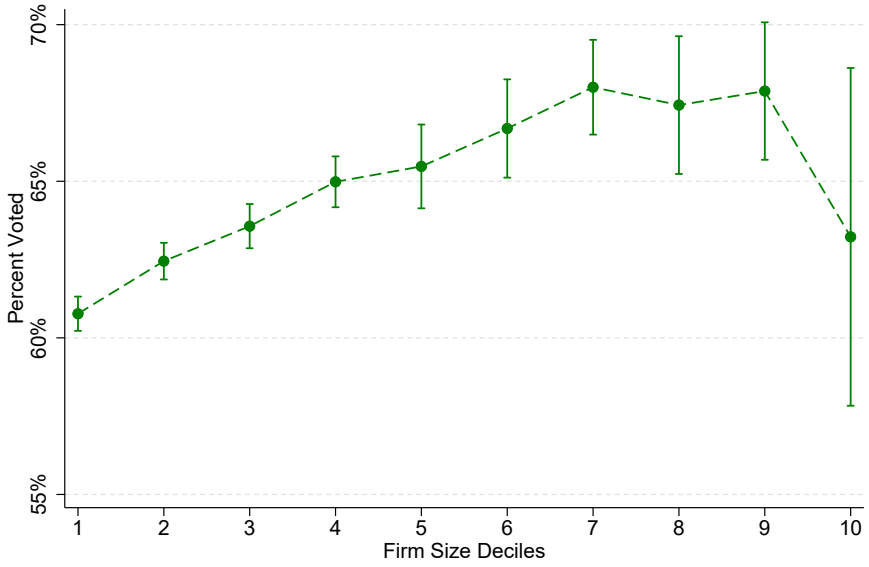
Panel A: Propensity to Vote



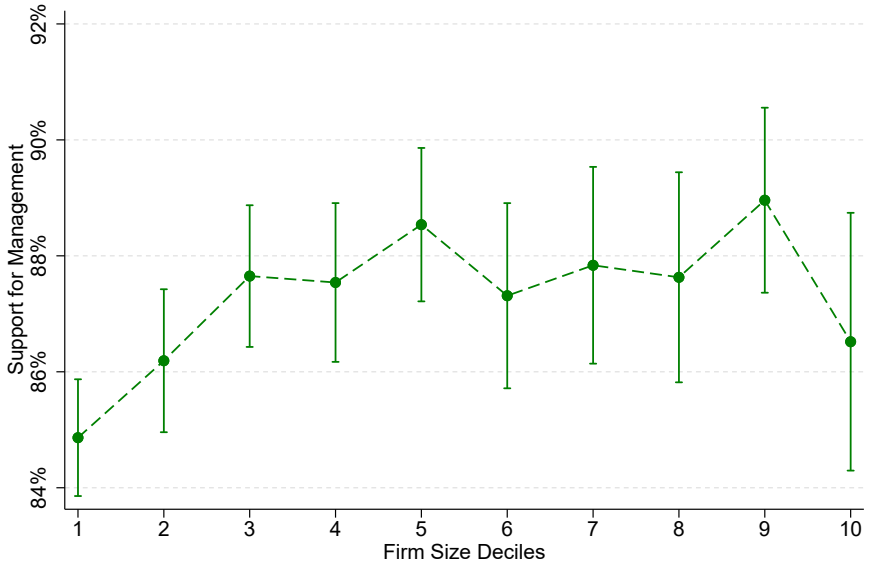
Panel B: Support for management

Figure 8: Variation across IM type, across deciles of IM dollar position size

Panel A shows the average propensity to vote across each Institutional manager (IM) type, within each dollar position size decile. IM types include activists (black solid line), hedge funds (green long-dashed line), private wealth (blue short-dashed line), and mixed asset management (brown dotted line). Panel B shows support for management across the same deciles and for these same IM types. For Panel A, the sample consists of IM type × portfolio firm × year, and we regress Vote, which is an indicator variable equal to one if the IM voted for the portfolio firm and zero otherwise, on position size decile indicators and meeting fixed effects. For Panel B, we form a sample of both IMs and mutual funds, and we regress Vote with management on decile bin indicators, decile bin indicators interacted with IM, and meeting fixed effects. In each panel, we estimate four separate regressions, one for each IM type, and we cluster standard errors at the meeting level. From each regression, we recover and plot predicted values for each decile, and vertical lines represent 5% and 95% confidence intervals. Both panels are restricted to IMs who vote on at least some positions.



Panel A: Propensity to Vote



Panel B: Support for management

Figure 9: Effects by firm size

Panel A shows the percent of IM shares that are voted within each decile of firm size, where deciles are calculated based on firm market capitalization. Panel B is similar, but it plots predicted support for management. In each case, we plot values that are recovered from a regression. For Panel A, the sample consists of IM $\times$ portfolio firm $\times$ year, and we regress Vote, which is an indicator variable equal to one if the IM voted for the portfolio firm and zero otherwise, on firm size decile indicators and investor fixed effects. For Panel B, we regress Vote with management on firm size decile bin indicators and meeting fixed effects. In each case, we cluster standard errors at the meeting level. From each regression, we recover and plot predicted values for each decile, and vertical lines represent 5% and 95% confidence intervals.

Table 1: Descriptive Statistics at position/vote level

The statistics in this table are based on the main sample used throughout for analyses, which consists of mutual funds and IMs for which we can match N-PX filings to 13F filings. Panel A provides descriptive statistics on the IMs in our sample, at the IM × Year level. Panels B and C provide descriptive statistics at the Institution × Firm × Year level, where institutions include both IMs and mutual funds, and each firm × year observation equates to one say-on-pay vote. Variable definitions are in Appendix A.

Panel A: IMs, statistics at the IM × year level

	Mean	St. Dev.	25^{th} perc	Median	75^{th} perc	Observations
Reports Voting	0.562	0.496	0.000	1.000	1.000	7,800
NAV (mil)	6,452.288	104,305.495	207.420	429.843	1,249.587	7,800
NAV in Top 5 13F Positions ($mil)	42.053	24.569	23.255	35.262	55.344	7,800
Ln (# IM 13F Positions)	4.477	1.466	3.638	4.575	5.352	7,800
Activist	0.071	0.256	0.000	0.000	0.000	7,800
Hedge Fund	0.169	0.375	0.000	0.000	0.000	7,800
Private Wealth	0.237	0.426	0.000	0.000	0.000	7,800

Panel B: IMs and Mutual funds, statistics at the Institution × Firm × Meeting level

	Mean	St. Dev.	25^{th} perc	Median	75^{th} perc	Observations
Investor Characteristics						
Institutional Manager	0.573	0.495	0.000	1.000	1.000	1,494,274
Position Value ($mil)	23.146	337.921	0.036	0.432	3.915	1,493,954
Percent of Firm Shares	0.129	0.631	0.000	0.004	0.040	1,494,274
Percent of Investor Hldgs	0.276	1.814	0.001	0.011	0.088	1,493,799
13D Filed	0.031	0.173	0.000	0.000	0.000	1,494,274
Voting						
Fund Support for Mgmt	87.309	33.088	100.000	100.000	100.000	1,494,274
ISS Rec	90.081	29.892	100.000	100.000	100.000	633,702
Firm Characteristics						
Market Value of Equity	59,413.611	219,813.747	2,763.001	10,223.741	41,936.203	1,493,374
Return 12 months	0.139	0.450	-0.107	0.105	0.311	1,487,484
Total CEO Pay	14.380	13.081	6.711	11.532	18.797	627,619
Performance Pay	83.654	16.060	82.511	87.863	91.552	625,581

Panel C: IMs vs Mutual Funds, statistics at the Institution × Firm × Year level

	IMs (n=855,419)	Mutual Funds (n= 638,285)	Difference
Investor Characteristics			
Position Value ($mil)	22.315	24.26	-1.944 ***
Percent of Firm Shares	0.129	0.13	-0.001
Percent of Investor Hldgs	0.231	0.337	-0.106 ***
13D Filed	0.05	0.006	0.044 ***
Firm Characteristics			
Market Value ($mil)	66,734	49,602	17,132 ***
Return 12 months	0.138	0.141	-0.003 ***
Total CEO Pay ($mil)	15.104	13.446	1.658 ***
Percent Performance Pay	83.927	83.302	0.625 ***
Voting			
Fund Support for Mgmt	87.413	87.169	0.245 ***
ISS Rec	90.001	90.176	-0.175 **

Table 2: Voting policy of institutional investors

In Panel A, we tabulate details regarding the voting policy of institutions in our sample, including both IMs and mutual funds. Data come from N-PX filings, which by regulatory requirement these institutions must file. Within the N-PX filing, each institution must denote whether they: have a 'Stated policy to not vote' (col 1), 'Stated did not exercise right to vote' (col 2), or 'Stated votes reported by other managers' (col 3). Cases in which none of these boxes are checked represent cases in which they 'Voted at least a portion of holdings' (col 4). The last column lists the number of observations. Statistics are provided for All institutions (row 1), for the subsets of institutions representing mutual funds versus IMs (rows 2 and 3, respectively), and for the subsets of IMs that are activists (row 4), hedge funds that are not activists (row 5), and private wealth (row 6). Panel A includes all institutions, and Panel B is restricted to the institutions in our main sample for which we can match N-PX filings to 13F filings

Panel A: Full Sample

	Institution Type	Stated policy to not vote	Stated did not exercise right to vote	Stated Votes reported by Other Managers	Voted a portion of holdings	Number of Observations
(1)	All Institutions	28%	12%	7%	53%	17,511
(2)	Mutual Funds	0%	0%	0%	100%	2,612
(3)	IMs	33%	14%	9%	44%	14,899
(4)	Activists	2%	10%	7%	81%	809
(5)	Hedge funds (non-activist)	9%	14%	4%	73%	1,883
(6)	Private wealth	64%	6%	1%	29%	2,903

Panel B: Merged to 13F Sample

	Institution Type	Stated policy to not vote	Stated did not exercise right to vote	Stated Votes reported by Other Managers	Voted a portion of holdings	Number of Observations
(1)	All Institutions	27%	6%	1%	66%	10,052
(2)	Mutual Funds	0%	0%	0%	100%	2,210
(3)	IMs	35%	8%	1%	56%	7,842
(4)	Activists	3%	5%	1%	91%	557
(5)	Hedge funds (non-activist)	8%	10%	1%	82%	1,326
(6)	Private wealth	61%	6%	0%	33%	1,856

Table 3: Predicting Voting at IM Level, on average across all IMs

This table shows regressions estimated at the IM × year level. In columns 1 and 2, the sample consists of all IMs that can be matched to 13F filings. And in column 3, the sample is additionally restricted to IMs that voted on at least some portfolio shares in that year. In column 1, the dependent variable equals Reports Voting, which represents an indicator variable equal to one if the IM voted shares in any portfolio company during that year, zero otherwise. In columns 2 and 3, the dependent variable equals 'Voted on most positions', which represents an indicator variable equal to one if the IM voted on more than 90% of its positions during that year. Variable definitions are in Appendix A. Year fixed effects are included in all regressions. All continuous variables are standardized. Standard errors are clustered at the meeting level, and ***, **, and * denote significance at the 1, 5, and 10% levels, respectively.

	(1) Reports Voting	(2) Voted on Most Positions	(3) Voted on Most Positions
Ln (Total IM NAV)	0.351***	0.240***	0.038*
	(0.000)	(0.000)	(0.086)
Ln (# IM Positions)	-0.379***	-0.242***	-0.034
	(0.000)	(0.000)	(0.327)
Pct NAV in Top 5 13F Positions	-0.191***	-0.197***	-0.140***
	(0.000)	(0.000)	(0.000)
Activist	0.127***	0.030*	-0.049**
	(0.000)	(0.055)	(0.011)
Hedge Fund	0.160***	0.029*	-0.086***
	(0.000)	(0.063)	(0.000)
Private wealth	-0.113***	-0.027*	0.089***
	(0.000)	(0.055)	(0.000)
Sample	All	All	IMs who voted
Fixed Effects	Year	Year	Year
Adj. R-squared	0.256	0.078	0.044
Observations	7,800	7,800	4,385

Table 4: Propensity of IMs to vote each holding

This table shows regressions at the IM × portfolio firm × year level, across the subset of IMs that voted at least some of their shares. The dependent variable equals Reports Voting, which represents an indicator variable equal to one if the IM voted shares in the portfolio company during that year, zero otherwise. In column 1 (column 2), we include industry × year (firm and year) fixed effects. Variable definitions are in Appendix A. All continuous variables are standardized. Standard errors are clustered at the meeting level, and ***, **, and * denote significance at the 1, 5, and 10% levels, respectively.

	(1) Voted Indicator	(2) Voted Indicator
IM's position in firm		
Log Prevote Position Value ($ mill)	0.124***	0.092***
	(0.000)	(0.000)
Prevote Position NAV %	-0.015***	-0.002
	(0.000)	(0.223)
Prevote Position Firm %	0.025***	0.030***
	(0.000)	(0.000)
IM characteristics		
Ln (Total IM 13F NAV)	0.089***	0.124***
	(0.000)	(0.000)
Percent of NAV in Top 5 Positions	-0.102***	-0.107***
	(0.000)	(0.000)
Ln (# IM 13F Positions)	-0.128***	-0.144***
	(0.000)	(0.000)
13D Filed	-0.017***	-0.015***
	(0.000)	(0.000)
Portfolio firm characteristics		
Return 12 months	-0.019**	-0.001
	(0.025)	(0.704)
Ln (Market Size Equity)	0.003	0.061***
	(0.893)	(0.005)
Cash Dividends	0.019	0.005
	(0.132)	(0.306)
Book Leverage	0.031***	0.009
	(0.001)	(0.456)
Cash	-0.003	0.000
	(0.346)	(0.960)
CapEx to Assets	-0.036	0.007
	(0.117)	(0.513)
Fixed Effects	FF12 x Year	Firm and Year
Adj. R-squared	0.051	0.148
Observations	732,426	732,389

Table 5: Investor Voting on SOP

We estimate regressions at the institution × portfolio firm × year level, where institutions include both mutual funds and IMs. The sample is restricted to institutions that voted at least some of their portfolio firm shares. The dependent variable equals Fund support for management, which represents an indicator variable equal to one if the IM voted for management, zero otherwise. In column three we include meeting fixed effects. Variable definitions are in Appendix A. We report unstandardized coefficients with standard errors in parentheses. Standard errors are clustered at the meeting level, and ***, **, and * denote significance at the 1, 5, and 10% levels, respectively.

	(1) Fund Support for Mgmt	(2) Fund Support for Mgmt	(3) Fund Support for Mgmt
Mutual Fund	87.169***		
	(0.271)		
Institutional Manager	87.413***	0.245**	-0.138
	(0.240)	(0.110)	(0.101)
Ln(Institution NAV)			-0.171***
			(0.025)
Log Position Value			-0.166***
			(0.014)
Percent of Firm Shares			1.577***
			(0.064)
Percent of Investor Hldgs			0.104***
			(0.016)
Constant		87.169***	
		(0.271)	
Fixed Effects	None	None	Meeting
Adj. R-squared	0.874	0.874	0.232
Observations	1,494,274	1,494,274	1,493,726

Table 6: Investor Voting on SOP and Investor Position

We estimate regressions at the institution × portfolio firm × year level, where institutions include both mutual funds and IMs. The sample is restricted to institutions that voted on at least some of their shares. The dependent variable equals *Fund support for management*, defined as the percentage of investor shares voted for management. *Large position*, *large NAV*, *large % of NAV*, and *large % of Firm Equity* equal one if the respective underlying continuous variable is above-median, zero otherwise. Variable definitions are in Appendix A. We include meeting fixed effects. Standard errors are clustered at the meeting level, and ***, **, and * denote significance at the 1, 5, and 10% levels, respectively.

	(1) Fund Support for Mgmt	(2) Fund Support for Mgmt	(3) Fund Support for Mgmt	(4) Fund Support for Mgmt	(5) Fund Support for Mgmt
Institutional Manager	2.765***	4.990***	0.076	4.182***	7.117***
	(0.158)	(0.185)	(0.126)	(0.182)	(0.234)
Large Position	3.262***	0.561***	0.467***	0.904***	1.123***
	(0.119)	(0.102)	(0.107)	(0.102)	(0.127)
Large NAV	-3.022***	2.744***	-2.963***	-2.984***	1.976***
	(0.115)	(0.096)	(0.114)	(0.114)	(0.100)
Large % NAV	-1.193***	-0.837***	-1.198***	-1.079***	-0.180
	(0.084)	(0.081)	(0.117)	(0.083)	(0.119)
Large % Firm	0.769***	-0.011	0.507***	4.578***	1.905***
	(0.095)	(0.090)	(0.094)	(0.160)	(0.143)
IM x Large Position	-5.193***				-0.695***
	(0.179)				(0.188)
IM x Large NAV		-9.736***			-8.465***
		(0.229)			(0.211)
IM x Large Pct of NAV			-0.429***		-0.958***
			(0.149)		(0.157)
IM x Large Pct of Firm Value				-7.669***	-3.312***
				(0.211)	(0.214)
Fixed Effects	Meeting	Meeting	Meeting	Meeting	Meeting
Adj. R-squared	0.234	0.238	0.233	0.235	0.238
Observations	1,493,726	1,493,726	1,493,726	1,493,726	1,493,726

Table 7: Investor Voting on SOP and Investor Type

We estimate regressions at the IM × portfolio firm × year level. The sample is restricted to institutions that voted at least some of their shares. The dependent variable equals *Support for management*, which represents the percentage of votes the IM voted for management. *Large position* is an indicator variable equal one Dollar position size is above-median, zero otherwise. Variable definitions are in Appendix A. We include meeting fixed effects. Standard errors are clustered at the meeting level, and ***, **, and * denote significance at the 1, 5, and 10% levels, respectively.

Dept. Var: Support for Mgmt	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Activist	4.817***				3.575***				4.272***
	(0.133)				(0.196)				(0.199)
Activist x Large Position					2.129***				2.455***
					(0.260)				(0.260)
Hedge Fund		0.842***				-0.565***			0.601***
		(0.111)				(0.149)			(0.144)
Hedge Fund x Large Position						2.840***			3.015***
						(0.190)			(0.191)
Private Wealth			3.533***				3.360***		3.561***
			(0.112)				(0.115)		(0.114)
Private Wealth x Large Position							0.715***		1.552***
							(0.239)		(0.241)
Other Investor				-3.568***				-2.847***	
				(0.068)				(0.086)	
Other IM x Large Position								-1.890***	
								(0.134)	
Large Position	-2.646***	-2.661***	-2.204***	-2.574***	-2.745***	-3.090***	-2.312***	-1.398***	-3.233***
	(0.114)	(0.112)	(0.109)	(0.113)	(0.114)	(0.120)	(0.123)	(0.130)	(0.132)
Ln(Institution NAV)	-0.941***	-0.858***	-0.709***	-0.742***	-0.938***	-0.839***	-0.706***	-0.735***	-0.740***
	(0.039)	(0.039)	(0.036)	(0.038)	(0.039)	(0.039)	(0.036)	(0.038)	(0.037)
Percent of Investor Hldgs	0.031	0.038	0.077***	0.037	0.033	0.030	0.076***	0.026	0.038
	(0.025)	(0.026)	(0.026)	(0.025)	(0.025)	(0.026)	(0.026)	(0.025)	(0.025)
Percent of Firm Shares	1.711***	1.888***	1.858***	1.780***	1.668***	1.886***	1.870***	1.763***	1.660***
	(0.070)	(0.072)	(0.071)	(0.070)	(0.070)	(0.071)	(0.072)	(0.070)	(0.069)
Fixed Effects	Meeting	Meeting	Meeting	Meeting	Meeting	Meeting	Meeting	Meeting	Meeting
Adj. R-squared	0.201	0.200	0.202	0.203	0.201	0.201	0.202	0.203	0.204
Observations	855,165	855,165	855,165	855,165	855,165	855,165	855,165	855,165	855,165

Table 8: Heterogeneity across firm size

We estimate regressions at the IM × portfolio firm × year level. In columns (1) and (2), the sample consists of all IMs that voted at least some portfolio firms, intersected with all firms they own (as reported on 13F filings); the dependent variable is an indicator equal to one if the IM voted the shares in the portfolio company, zero otherwise. In columns (3) and (4), the sample is restricted to the firms in which the IMs voted, and the dependent variable is the percentage IM support for management. Independent variables include *Large firm* and *Small firm*, which are indicator variables equal to one if firm market capitalization is in the top and bottom terciles, respectively. The middle tercile represents the omitted group. Columns (2) and (4) include year and Fama-French 12 industry fixed effects, as well as control variables used in prior tables. Variable definitions are in Appendix A. Standard errors are clustered at the meeting level, and ***, **, and * denote significance at the 1, 5, and 10% levels, respectively.

	(1) Voted) on Firm)	(2) Voted on Firm	(3) Support for Mgmt	(4) Support for Mgmt
Large Firm (top 1/3)	0.006	-0.007	2.552***	1.367*
	(0.011)	(0.010)	(0.798)	(0.803)
Small Firm (bottom 1/3)	-0.048***	-0.033***	-2.098***	-1.235**
	(0.004)	(0.005)	(0.594)	(0.623)
Log Prevote Position Value ($ mill)		0.020***		-0.112**
		(0.001)		(0.050)
Prevote Position NAV %		-0.003***		-0.042
		(0.001)		(0.030)
Prevote Position Firm %		0.011***		1.103***
		(0.001)		(0.059)
Ln (Total IM 13F NAV)		0.021***		-0.393***
		(0.001)		(0.056)
Percent of NAV in Top 5 Positions		-0.004***		-0.042***
		(0.000)		(0.005)
Ln (# IM 13F Positions)		-0.047***		-1.489***
		(0.001)		(0.080)
Return 12 months		-0.021**		1.184*
		(0.009)		(0.646)
Cash Dividends		0.277**		56.523***
		(0.135)		(11.900)
Book Leverage		0.070***		-4.370***
		(0.014)		(1.456)
Cash		-0.000		-0.145**
		(0.000)		(0.070)
CapEx to Assets		-0.446***		-1.476
		(0.173)		(8.606)
Fixed Effects	None	FF12 x Year	None	FF12 x Year
Adj. R-squared	0.003	0.052	0.003	0.020
Observations	732,426	732,426	476,540	476,540

Appendix A Variable Descriptions

Investment Managers Characteristics

NAV (mil) is the investor Net Asset Value calculated as total 13F holdings for IMs, or the value of total shares voted on form N-PX (because they are required to vote on everything).

Ln (Total IM NAV) is the natural logarithm of total institutional manager NAV.

NAV in Top 5 13F Positions (mil) is the part of NAV that is held in the five biggest positions.

Percent NAV in Top 5 13F Positions is the percent of NAV that is held in the five biggest positions.

Ln (# IM 13F Positions) the natural logarithm of the number of securities held by the institutional manager as reported on Form 13F.

Institutional Manager is an indicator variable equal to one if the investor is classified as an institutional manager according to Form N-PX filings and zero otherwise.

Mutual Fund is an indicator variable equal to one if the investor is a registered management investment company (RMIC), including open-end mutual funds, closed-end funds, and ETFs, and zero otherwise.

Activist is an indicator variable equal to one if the institutional manager filed at least one Schedule 13D in the previous three years, and zero otherwise.

Hedge Fund is an indicator variable equal to one if the institutional manager reports advising private funds and classifies at least 50% of these funds as hedge funds in Form ADV filings.

Private Wealth is an indicator variable equal to one if at least 75% of the institutional manager's client base consists of high-net-worth individuals according to Form ADV filings.

Mixed Asset Management is an indicator variable equal to one if the institutional manager does not fall into the activist, hedge fund, or private wealth categories. This group includes large and diversified asset managers that serve multiple client types or pursue multiple investment strategies. Examples include banks, insurance companies, pension managers, foundations, endowments, and multi-strategy investment advisors.

Position Value ($mil) is the dollar value of the investor's holdings in a given firm measured in millions of dollars.

Percent of Firm Shares is the investor's holdings in a firm expressed as a percentage of the firm's total shares outstanding.

Percent of Investor Hldgs (Percent of NAV) is the value of the investor's position in the firm divided by the investor's total NAV.

13D Filed is an indicator variable equal to one if the investor has filed a Schedule 13D disclosure in the past three years, indicating activist involvement.

Large Position is an indicator variable equal to one if the investor's dollar position in the firm is above the sample median.

Large NAV is an indicator variable equal to one if the investor's total NAV is above the sample median.

Large Percent of Firm Equity is an indicator variable equal to one if the investor's ownership stake in the firm exceeds the sample median.

Large Percent of NAV is an indicator variable equal to one if the investor's position as a share of its total NAV exceeds the sample median.

Voting Variables

Reports Voting is an indicator variable equal to one if the institutional manager voted on at least one portfolio company during the year and zero otherwise.

Voted on Most Positions is an indicator variable equal to one if the institutional manager voted on at least 90% of its portfolio positions in that year.

Vote is an indicator variable equal to one if the institutional manager voted on the firm's say-on-pay proposal and zero otherwise.

Shares Voted is the number of shares reported as voted by the investor in Form N-PX filings.

Fund Support for Management (Support for Mgmt) is the percentage of shares voted by the institution in favor of management on the say-on-pay proposal.

Vote with Management is an indicator variable equal to one if the institution voted in favor of management on the say-on-pay proposal and zero otherwise.

ISS Recommendation (ISS Rec) is the inferred recommendation from Institutional Shareholder Services (ISS) regarding the say-on-pay proposal. The variable equals one if the recommendation is to vote in favor of management and zero otherwise.

Firm Characteristics

Market Value of Equity (Market Value) is the firm's market capitalization measured in millions of dollars, calculated as share price multiplied by shares outstanding.

Ln (Market Value of Equity) is the natural logarithm of firm market capitalization.

Return 12 months is the firm's stock return over the prior twelve months.

Total CEO Pay is total CEO compensation measured in millions of dollars, obtained from ExecuComp.

Performance Pay is the percentage of CEO compensation that is performance-based, including stock and option compensation.

Cash Dividends is an indicator variable equal to one if the firm pays cash dividends and zero otherwise.

Book Leverage is the ratio of total debt to total assets.

Cash is the ratio of cash and cash equivalents to total assets.

CapEx to Assets is capital expenditures divided by total assets.

Internet Appendix to Optional Shareholder Voting

Peter Iliev and Michelle Lowry

Form N-PX Filer Information	UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549	OMB APPROVAL
Form N-PX	FORM N-PX ANNUAL REPORT OF PROXY VOTING RECORD	OMB Number: 3235-0582 Estimated average burden hours per response: 20.8

N-PX: Filer Information

Filer CIK	0001976435
Filer CCC	********
Date of Report	06/30/2025
Are you a Registered Management Investment Company or an Institutional Manager?	Institutional Manager
Is this a LIVE or TEST Filing?	LIVE TEST
Is this an electronic copy of an official filing submitted in paper format?	

Submission Contact Information

Name	
Phone Number	
E-mail Address	

Notification Information

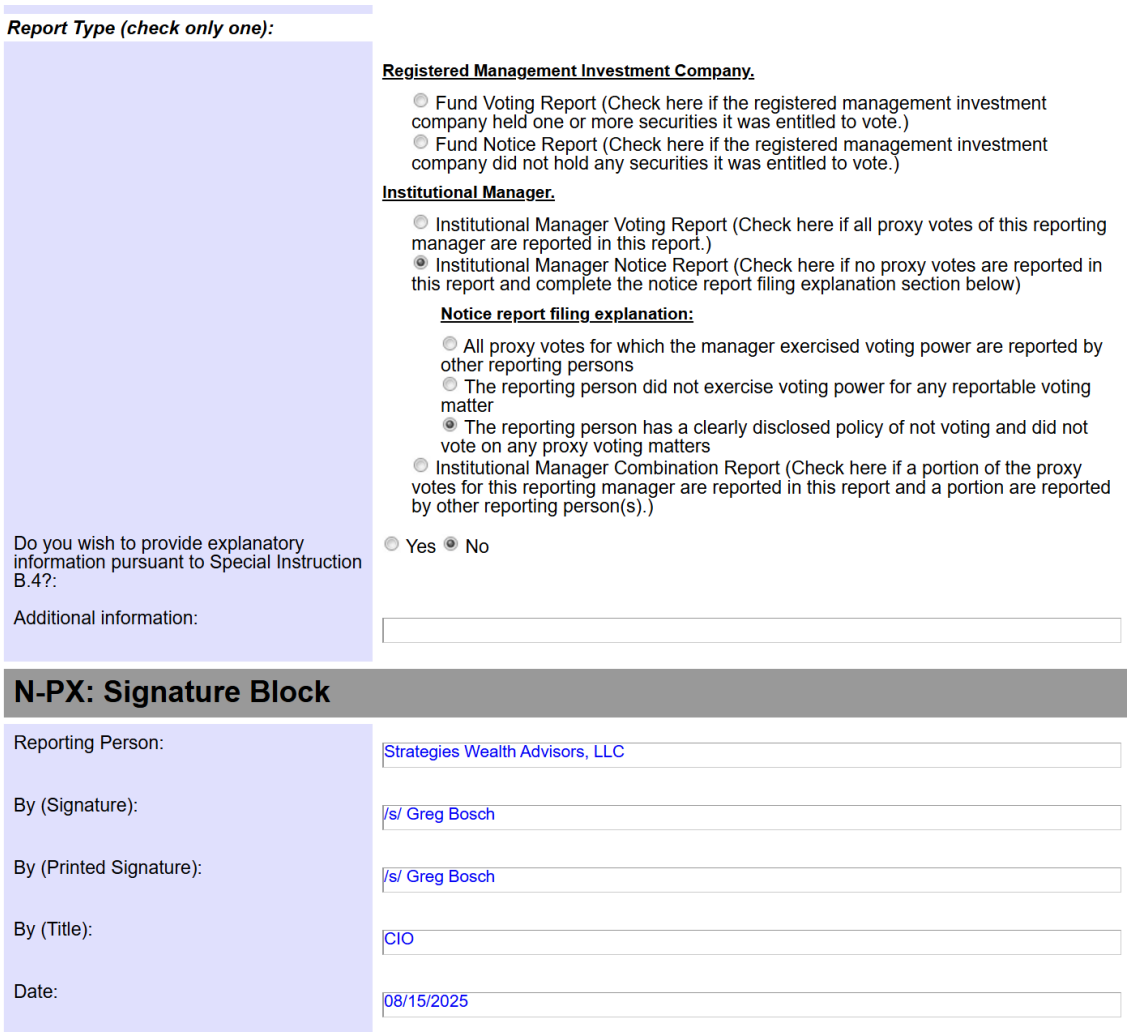
Notify via Filing Website only?	

N-PX: Cover Page

Name and address of reporting person:

Name of reporting person (For registered management investment companies, provide exact name of registrant as specified in charter)	Strategies Wealth Advisors, LLC
Street 1	171 MONROE AVE NW
Street 2	SUITE 800
City	GRAND RAPIDS
State/Country	MICHIGAN
Zip code and zip code extension or foreign postal code	49503
Telephone number of reporting person, including area code:	616-655-1592

(continued)



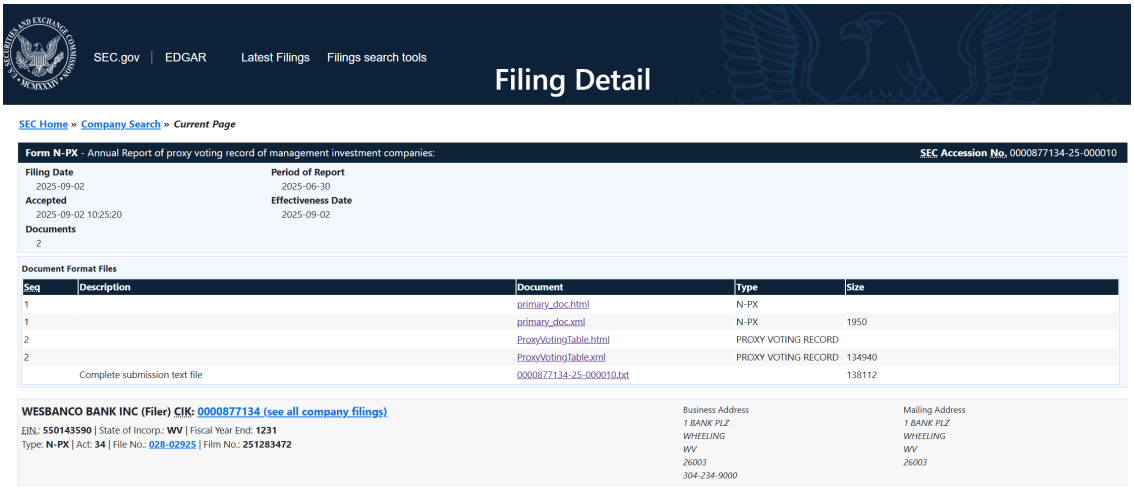
Report Type (check only one):	
	Registered Management Investment Company. ○ Fund Voting Report (Check here if the registered management investment company held one or more securities it was entitled to vote.) ○ Fund Notice Report (Check here if the registered management investment company did not hold any securities it was entitled to vote.) **Institutional Manager.** ○ Institutional Manager Voting Report (Check here if all proxy votes of this reporting manager are reported in this report.) ◉ Institutional Manager Notice Report (Check here if no proxy votes are reported in this report and complete the notice report filing explanation section below) **Notice report filing explanation:** ○ All proxy votes for which the manager exercised voting power are reported by other reporting persons ○ The reporting person did not exercise voting power for any reportable voting matter ◉ The reporting person has a clearly disclosed policy of not voting and did not vote on any proxy voting matters ○ 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).)
Do you wish to provide explanatory information pursuant to Special Instruction B.4?:	○ Yes ◉ No
Additional information:	

N-PX: Signature Block

Reporting Person:	Strategies Wealth Advisors, LLC
By (Signature):	/s/ Greg Bosch
By (Printed Signature):	/s/ Greg Bosch
By (Title):	CIO
Date:	08/15/2025

Figure IA1: Sample N-PX Header Information

This figure provides an example of the filing page for form N-PX filed by Strategies Wealth Advisors, LLC on 2025/08/21. Source https://www.sec.gov/Archives/edgar/data/1976435/000090572925000145/xslN-PX_X01/primary_doc.xml



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Form N-PX - Annual Report of proxy voting record of management investment companies: **SEC Accession No.** 0000877134-25-000010

Filing Date 2025-09-02
Period of Report 2025-06-30
Accepted 2025-09-02 10:25:20
Effectiveness Date 2025-09-02
Documents 2

Document Format Files

Seq	Description	Document	Type	Size
1		primary_doc.html	N-PX	
1		primary_doc.xml	N-PX	1950
2		ProxyVotingTable.html	PROXY VOTING RECORD	
2		ProxyVotingTable.xml	PROXY VOTING RECORD	134940
	Complete submission text file	0000877134-25-000010.txt		138112

WESBANCO BANK INC (Filer) CIK: 0000877134 (see all company filings)
EIN: **550143590** | State of Incorp.: **WV** | Fiscal Year End: **1231**
Type: **N-PX** | Act: **34** | File No.: **028-02925** | Film No.: **251283472**

Business Address
1 BANK PLZ
WHEELING
WV
26003
304-234-9000

Mailing Address
1 BANK PLZ
WHEELING
WV
26003

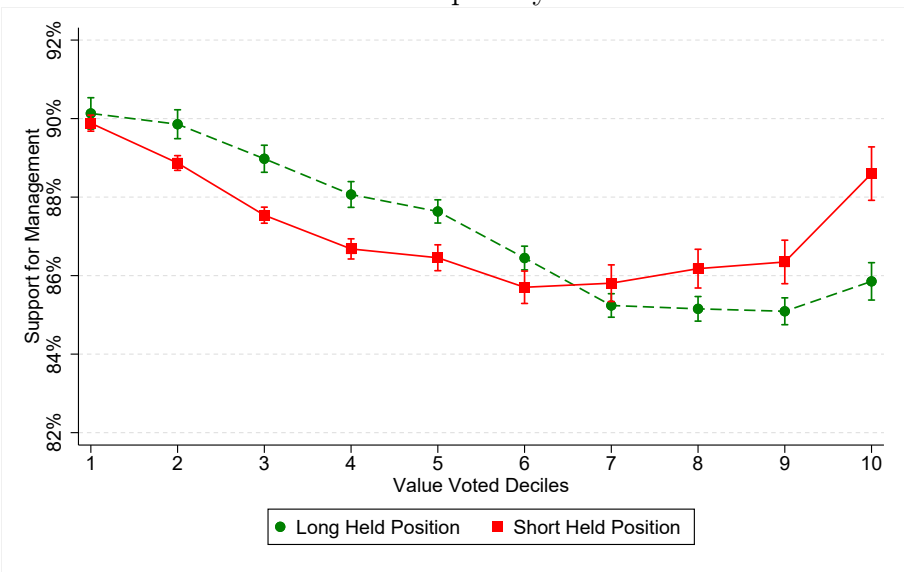
FORM N-PX PROXY VOTING RECORD

COLUMN1	COLUMN2	COLUMN3	COLUMN4	COLUMN5	COLUMN6	COLUMN7	COLUMN8	COLUMN9	COLUMN10	COLUMN11	COLUMN12			COLUMN13	COLUMN14	COLUMN15
											DETAILS OF VOTE					
NAME OF ISSUER	CUSIP	ISIN	FIGI	MEETING DATE	VOTE DESCRIPTION	VOTE CATEGORY	DESCRIPTION OF OTHER CATEGORY	VOTE SOURCE	SHARES VOTED	SHARES ON LOAN	HOW VOTED	SHARES VOTED	FOR OR AGAINST MANAGEMENT	MANAGER NUMBER	SERIES ID	OTHER INFO
Box, Inc.	10316T104	US10316T1043		07/02/2024	To approve, on an advisory basis, the compensation of our named executive officers.	SECTION 14A SAY-ON-PAY VOTES		-	81254.000000	0	FOR	81254.000000	FOR		-	-
Constellation Brands, Inc.	21036P108	US21036P1084		07/17/2024	To approve, by an advisory vote, the compensation of the Company's named executive officers as disclosed in the Proxy Statement.	SECTION 14A SAY-ON-PAY VOTES		-	28861.000000	0	FOR	28861.000000	FOR		-	-
SilverBow Resources, Inc.	82836G102	US82836G1022		07/29/2024	The SilverBow Advisory Compensation Proposal: To approve, on a non-binding, advisory basis, certain compensation that may be paid or become payable to SilverBow's named executive officers that is based on or otherwise relates to the Mergers.	SECTION 14A SAY-ON-PAY VOTES		-	27934.000000	0	AGAINST	27934.000000	AGAINST		-	-
Hawkins, Inc.	420261109	US4202611095		07/31/2024	Non-binding advisory vote to approve executive compensation ("say-on-pay").	SECTION 14A SAY-ON-PAY VOTES		-	18350.000000	0	FOR	18350.000000	FOR		-	-
Prestige Consumer Healthcare Inc.	74112D101	US74112D1019		08/06/2024	Say on Pay - An advisory vote on the resolution to approve the compensation of Prestige Consumer Healthcare Inc.'s named executive officers.	SECTION 14A SAY-ON-PAY VOTES		-	11109.000000	0	FOR	11109.000000	FOR		-	-
e.l.f. Beauty, Inc.	26856L103	US26856L1035		08/22/2024	To approve, on an advisory basis, the compensation of the Company's named executive officers.	SECTION 14A SAY-ON-PAY VOTES		-	8824.000000	0	FOR	8824.000000	FOR		-	-
Mitek Systems, Inc.	606710200	US6067102003		09/10/2024	To approve, on an advisory (non-binding) basis, the compensation of our named executive officers as presented in the Proxy Statement accompanying this notice; and	SECTION 14A SAY-ON-PAY VOTES		-	78000.000000	0	FOR	78000.000000	FOR		-	-
NIKE, Inc.	654106103	US6541061031		09/10/2024	To approve executive compensation by an advisory vote.	SECTION 14A SAY-ON-PAY VOTES		-	7500.000000	0	FOR	7500.000000	FOR		-	-
Patterson Companies, Inc.	703395103	US7033951036		09/16/2024	Advisory approval of executive compensation.	SECTION 14A SAY-ON-PAY VOTES		-	38036.000000	0	FOR	38036.000000	FOR		-	-
Korn Ferry	500643200	US5006432000		09/25/2024	Advisory (non-binding) resolution to approve the Company's executive compensation.	SECTION 14A SAY-ON-PAY VOTES		-	32945.000000	0	FOR	32945.000000	FOR		-	-
RPM International Inc.	749685103	US7496851038		10/03/2024	Approve the Company's executive compensation.	SECTION 14A SAY-ON-PAY VOTES		-	2907.000000	0	FOR	2907.000000	FOR		-	-
Carpenter Technology Corporation	144285103	US1442851036		10/07/2024	Approve the compensation of the corporation's named executive officers, in an advisory vote.	SECTION 14A SAY-ON-PAY VOTES		-	9682.000000	0	FOR	9682.000000	FOR		-	-
The Procter & Gamble Company	742718109	US7427181091		10/08/2024	Advisory Vote to Approve the Company's Executive	SECTION 14A SAY-ON-PAY VOTES		-	39307.000000	0	FOR	39307.000000	FOR		-	-

Figure IA2: Sample N-PX Filing with Reported Voting

This figure provides the N-PX lending page and excerpt from the voting report table for form N-PX filed by Westbanco Bank Inc on 2025/06/30. Source https://www.sec.gov/Archives/edgar/data/877134/000087713425000010/0000877134-25-000010-index.html and https://www.sec.gov/Archives/edgar/data/877134/000087713425000010/xslNPX-INFO-TABLE_X01/ProxyVotingTable.xml

Panel A: Propensity to Vote



Panel B: Support for management

Figure IA3: Variations of Figure 6 split by position holding length

These figures present Variations of Figure 6 but the key difference is that we split IM positions into long held positions (more than three years) and short held positions (less than 3 years). Panel A shows propensity to vote, and Panel B shows average support for management across position size deciles after netting out firm and meeting characteristics. Position size is measured as IM holdings as a percent of firm equity. All figures come from regressions.

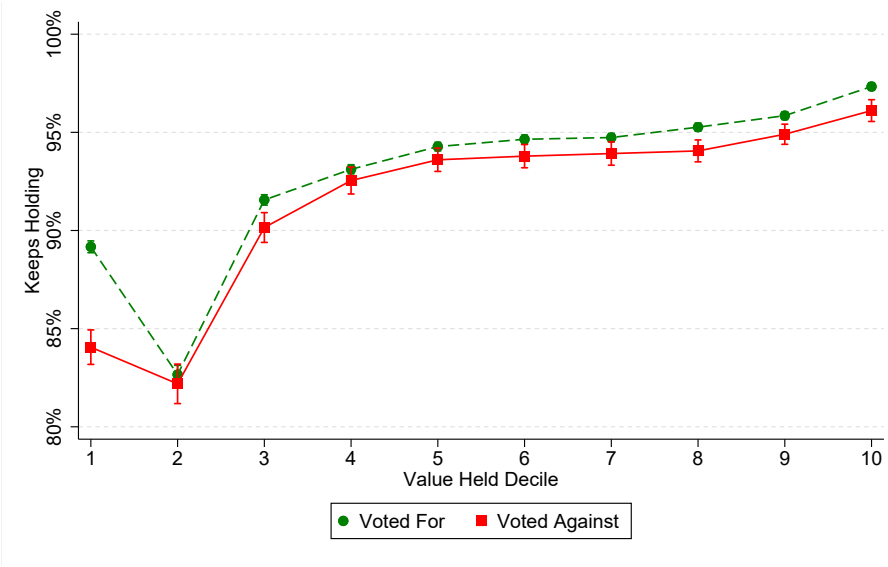


Figure IA4: Probability a Position is Retained after Voting

This figure plots the probability of a position being held after a vote, conditional on whether the vote was positive or negative.

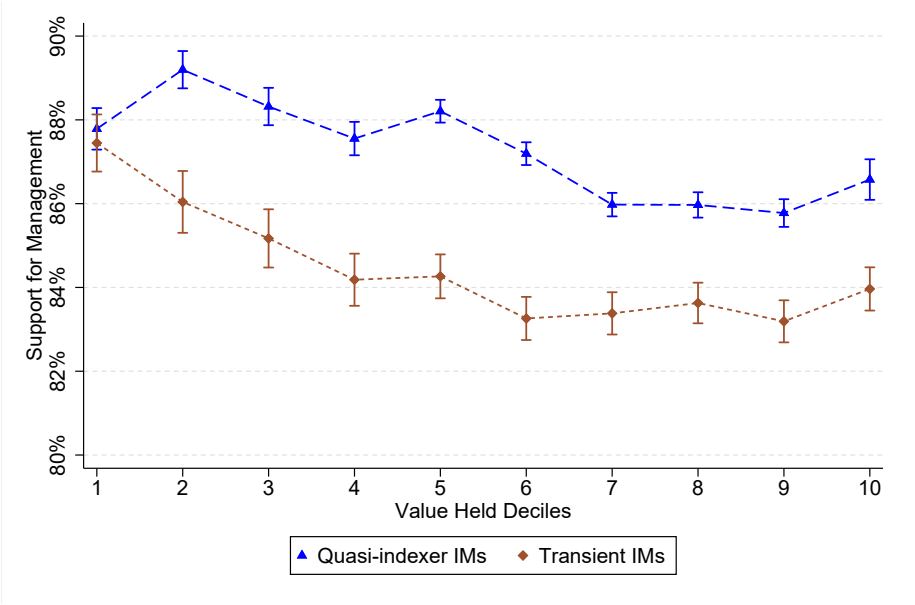


Figure IA5: Quasi-indexer and Transient IMs

This figure plots the Support for management for Quasi-indexer and Transient IMs, as defined in Bushee (1998) and Bushee (2001).

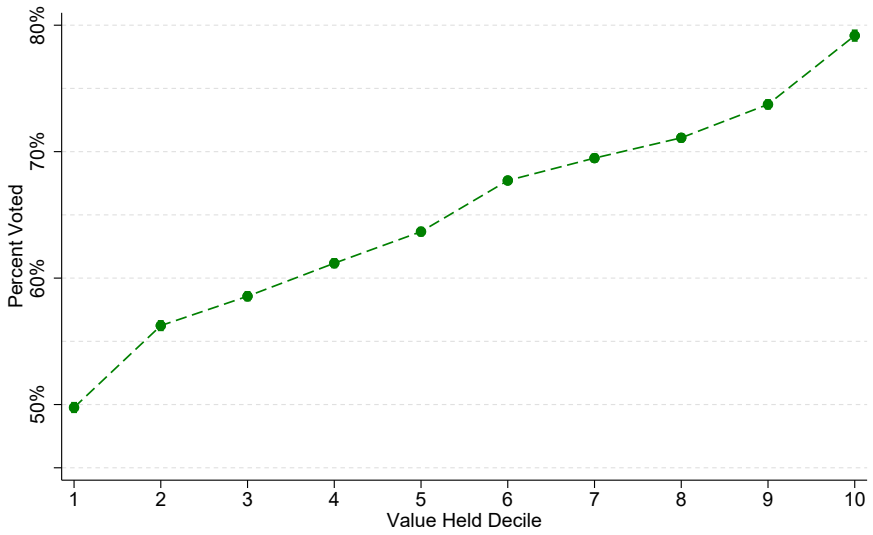


Figure IA6: Variations of Figure 6 Panel A

We present figures similar to Panel A of Figure 6 but limiting the sample to those IMs that voted on at least some portfolio holdings.

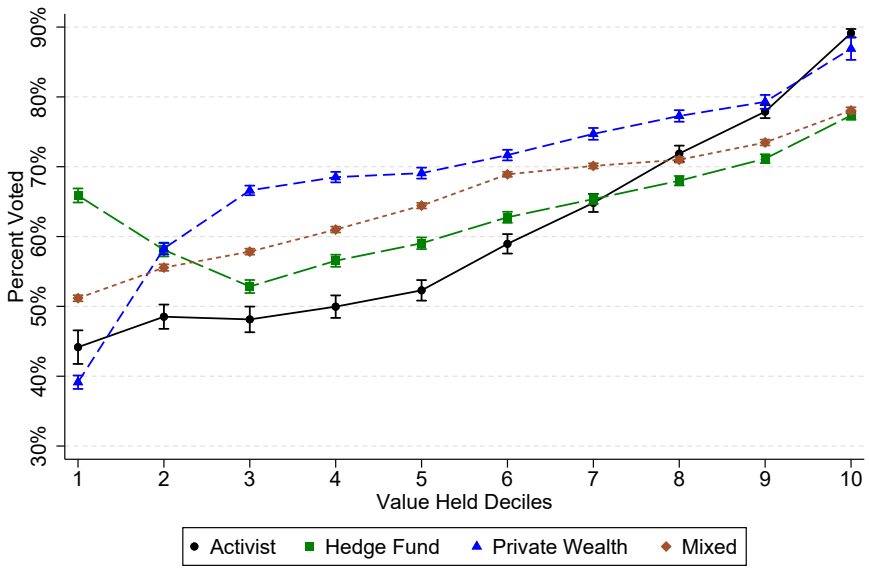


Figure IA7: Variations of Figure 8 Panel A

We present figures similar to Panel A of Figure 8 but limiting the sample to those IMs that voted on at least some portfolio holdings.