Which Firms Require More Governance? Evidence from Mutual Funds' Revealed Preferences

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Abstract

Not all firms benefit equally from shareholder-rights reforms, yet existing measures often obscure which companies need stronger oversight. This paper develops rankings from mutual fund voting data, showing how funds collectively assess each firm's governance needs—even when not all funds vote on every proposal. Funds converge on which firms warrant more oversight, yet these rankings often diverge from vote tallies. Governance-related attributes strongly correlate with the rankings, whereas underperformance or life-cycle characteristics do not. The results reveal that mutual funds do not treat governance as "one-size-fits-all," yet they may overlook certain dimensions conventional wisdom deems crucial for shareholder rights.

Keywords: proxy voting, mutual funds, shareholder proposals, machine learning
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1. Introduction

Corporate governance research recognizes that not all firms benefit equally from the same governance structures. Some may benefit from stronger shareholder rights, whereas others could find the same reforms less necessary or even counterproductive (e.g., Coles, Daniel, and Naveen, 2008; Duchin, Matsusaka, and Ozbas, 2010). Understanding *which* firms stand to gain more from these measures is crucial for researchers, policymakers, and practitioners aiming to align governance structures with each firm's circumstances. An especially rich source of evidence lies in the vast number of votes cast by mutual funds on shareholder proposals. However, funds often hold only a subset of companies, and these ownership choices can correlate with how they vote. As a result, raw vote support or fixed-effects regressions can be misleading, potentially capturing *who* owns a firm rather than how a broader range of investors view its governance proposals. For instance, if insiders or blockholders consistently side with management, a firm might appear to have little support for stronger shareholder rights; even though many other investors, had they owned shares, would have voted otherwise.

The goal of this paper is to construct a descriptive measure of how mutual funds, collectively, rank each firm's governance needs, even though no individual mutual fund votes on every firm. The core idea is to form "augmented rankings," which insert placeholder positions for unheld firms and iteratively refine them based on overlapping portfolios. For instance, if a fund votes "For" at Firm 1 but "Against" at Firm 2 on the same proposal, one can infer that the fund places Firm 1 ahead of Firm 2. For a Firm 3 that the fund does not hold, the algorithm tentatively creates a placeholder, then refines it by comparing votes from other investors who hold Firm 3 and at least one of the firms the original fund voted on. This bridging step is similar to how Netflix or Amazon predict a user's preferences for items they have not yet rated or purchased, by leveraging partial rating overlaps with similar users. Aggregating such inferences across all funds yields a ranking of firms, reflecting how the entire mutual-fund community (rather than just current owners) perceives each firm's governance needs.

Methodologically, this paper employs the Mallows model (Mallows, 1957), a foundational statistical ranking approach, adapted for incomplete observations by Vitelli, Sørensen, Crispino, Frigessi, and Arjas (2018) through a Bayesian Metropolis–Hastings Markov chain Monte Carlo (M–H MCMC) algorithm. For each proposal type in a given proxy season discussed below, all companies receiving that proposal are grouped together to form a ranking. Each fund begins with an augmented ordering (i.e., placeholder ranks for unowned firms). At each iteration, the algorithm proposes small local modifications (e.g., swapping two firms in one fund's ordering), accepting or rejecting them based on how well they match the observed votes. After sufficiently large iterations, the chain converges to a posterior distribution over each firm's rank. A narrower posterior spread indicates more agreement or extensive data, whereas a wider spread signals divergent opinions or limited data.

I apply this approach to five prominent shareholder proposal topics—independent board chair, board declassification, majority voting for directors, proxy access, and say-on-pay—over the 2004–2020 proxy seasons, using data from the Institutional Shareholder Services (ISS) Voting Analytics database. Each topic addresses broadly similar governance changes across firms, enabling direct firm-to-firm comparisons, unlike many environmental or social proposals that can vary significantly in terms and scope. To ensure sufficient coverage and meaningful variation, I require each topic-year to have at least 25 proposals and at least 50 funds that cast both "For" and "Against" votes.

With this new measure in place, I ask three main questions. First, do funds broadly agree on which firms most need stronger shareholder rights, or is there substantial disagreement? Second, does this measure differ from raw vote support in identifying companies that require more oversight, and if so, what does that imply about standard vote-based metrics? Third, do these measured preferences align with prominent firm characteristics (e.g., board independence, performance, size) that prior research considers important for determining a firm's governance needs?

Regarding the first question on convergence, one might expect disagreement, given that prior research documents substantial heterogeneity in investors' voting preferences (e.g.,

Bolton, Li, Ravina, and Rosenthal, 2020; Bubb and Catan, 2022). Yet the data reveal a notable convergence: funds generally align which companies stand to benefit most from these measures, despite differing baseline tendencies (e.g., how often they side with management). This suggests that funds do not view governance as "one-size-fits-all," but instead account for each firm's specifics, aligning with meaningful oversight (e.g., Iliev and Lowry, 2015). I next investigate whether index funds behave differently from active funds, given debates about whether passive investors effectively monitor firms (e.g., Appel, Gormley, and Keim, 2016; Bebchuk and Hirst, 2019; Heath, Macciocchi, Michaely, and Ringgenberg, 2022). While index funds tend to vote with management more often, their rankings for individual firms closely track those of active funds, implying that both investor types weigh each firm's circumstances rather than applying a blanket approach. This close alignment also alleviates concerns that selective ownership among active funds might heavily skew the final rankings, since passive funds face minimal choice in which companies they hold.

Turning to the second question of how these fund-based rankings compare to vote tallies often used as a proxy for shareholder enthusiasm (e.g., Gillan and Starks, 2000; Gantchev and Giannetti, 2020). One might expect a high correlation if many investors held all firms or shared similar preferences. However, the data show only moderate correlation for proposals such as independent board chair, majority vote, and proxy access (0.49–0.58), and even lower for board declassification (0.27) and say-on-pay (0.15). This implies that vote support can hinge strongly on *which* investors own the firm, rather than reflecting the overall stance among mutual funds. Further analysis reveals that ownership structure—such as insider ownership or institutional holdings—can affect total vote tallies in ways that diverge from the fund-based rankings. For example, companies with high insider ownership often show lower overall support than the fund-based rankings would suggest, as insiders typically oppose shareholder proposals. Accordingly, these findings suggest that raw vote support can be an imperfect indicator of investors' overall preferences, particularly when firms differ significantly in ownership structure, consistent with theoretical arguments that standard metrics may not reliably aggregate heterogeneous shareholder views (e.g., Levit, Malenko, and Maug, 2024).

Lastly, the third question asks whether mutual funds' preferences align with longstanding views on when governance reforms are most valuable. A widely held view posits that firms facing more severe agency problems benefit most from increased shareholder oversight (e.g., Harris and Raviv, 2010; Denes, Karpoff, and McWilliams, 2017). Indeed, the rankings show that companies with lower board independence, higher insider ownership, and high abnormal executive compensation rank significantly higher for adopting shareholder reforms. For example, each one-percentile decrease in board independence is linked to a 0.26-percentile increase in a firm's rank, a notable economic effect. This pattern is consistent with the idea that mutual funds pay close attention to agency concerns when deciding where stronger shareholder rights may be most appropriate.

Although firm performance often features prominently in discussions of governance (e.g., Cai, Garner, and Walkling, 2009; Cohn, Gillan, and Hartzell, 2016), the results reveal no robust link between underperformance and the governance rankings. This pattern persists across multiple specifications (e.g., short- vs. long-horizon returns, ROA vs. stock returns). Interviews with practitioners reveal that underperformance concerns are more often addressed through divestment or direct engagement with management, rather than by showing support for shareholder proposals. Overall, the evidence indicates that underperformance does not systematically influence how mutual funds vote on governance reforms.

A long-standing belief also holds that large or older firms warrant stronger shareholder oversight, whereas smaller or younger firms benefit from greater managerial discretion (e.g., Stratmann and Verret, 2012; Field and Lowry, 2022; Kim and Michaely, 2019). Although some regressions do show a positive relationship between firm size and funds' preference for governance reforms, the overall results are mixed. In some analyses, older companies even receive *less* support, contrary to the notion that mature, potentially entrenched firms require closer scrutiny. Taken together, these patterns suggest that while proxy voting may help address agency problems, there is little evidence that performance, size, or age systematically determines mutual funds' preferences for stronger shareholder rights.

Naturally, these findings are descriptive rather than causal: they show *where* mutual

funds favor shareholder reforms, not *why* certain firm characteristics affect funds' voting decisions. To gain more direct insight into these underlying motivations, I turn to a dataset of voluntarily disclosed voting rationales, where institutional investors explain their votes.[1] For instance, BlackRock's rationale for supporting Avista's majority-vote requirement proposal in 2016 stated, *"Supermajority vote requirement serves as an entrenchment device for management,"* whereas its rationale for opposing a similar proposal at FedEx read, *"Corporate policy decisions are best left to the board absent demonstrable harm to shareholders by prior board action or inaction,"* implying no perceived need for further reforms. In other cases, although many funds generally endorse separating the chair and CEO roles, the same fund may oppose it at other firms, citing robust existing structures.[2] Performance appears much less frequently in these rationales, and size and age (or more generally, other firm characteristics) are rarely mentioned. Taken together, these textual evidence reinforce the notion that mutual funds weigh governance features far more heavily than performance or other firm characteristics when casting votes.

One might wonder if these cross-firm rank differences are simply driven by proxy advisors' recommendations. In practice, ISS and Glass Lewis endorse most of the proposals studied—especially board declassification—leaving insufficient variation to explain differences in rank. While ISS offers more varied recommendations for independent board chair proposals, companies receiving the same "For" recommendation can still differ considerably in rank. Hence, proxy advisors' guidance alone cannot fully explain the cross-firm variation.

Although prior research highlights that funds exhibit heterogeneous preferences (e.g., Bubb and Catan, 2022), this paper shows that they nonetheless converge on which firms merit stronger governance provisions. This shared alignment does not contradict heterogeneity: Some funds may vote with management more often, yet they still collectively identify specific companies where reforms appear especially warranted. While many institutional in-

[1] See Michaely, Rubio, and Yi (2024) for an overview of the data.

[2] For example, a single fund might state, *"We believe that the chair and CEO roles should be separated,"* in one instance, yet for another company argue, *"Company already has policies in place to address these issues,"* demonstrating how different governance assessments can lead the same investor to cast different votes on the same issue.

vestors establish proxy voting guidelines (e.g., Couvert, 2020) describing their general stance on issues, the evidence indicates that funds also take into account firm-specific conditions when casting individual votes. This aligns with prior research showing that governance effectiveness depends on firm-specific factors rather than universal best practices (e.g., Coles et al., 2008; Duchin et al., 2010). More recent work further emphasizes the importance of firm context in shaping governance structures (e.g., Chen, Core, and Guay, 2024). By showing that mutual funds systematically tailor their votes to firms' governance characteristics, the findings suggest that these investors do not rely on a one-size-fits-all approach, offering a new perspective on institutional monitoring (e.g., Iliev and Lowry, 2015; Appel et al., 2016).

Nevertheless, the results also indicate that factors often considered important to firms' governance structures—such as performance, size, or age—receive only limited emphasis in mutual fund votes. Instead, most attention centers on a firm's governance features (e.g., board independence), as evidenced by the rankings and further supported by analyses of voting rationales and interviews with practitioners. This pattern suggests that voting outcomes might not always align with what outside observers view as "best" (Bhandari, Iliev, and Kalodimos, 2021; Blonien, Crane, Crotty, and De Angelis, 2022), and some governance challenges may require complementary mechanisms beyond proxy voting, such as regulatory measures or direct engagement.

Finally, this paper makes a methodological contribution by introducing a novel method to aggregate partial, potentially noisy preference data in the finance literature. While earlier studies employ advanced techniques to characterize how *investors* differ in their voting behavior, this paper shifts the focus to *firms*, asking which companies the broader fund community deems most in need of shareholder rights. It shares the broader revealed-preference perspective used by Avery, Glickman, Hoxby, and Metrick (2013) and Sorkin (2018), but applies a Bayesian Mallows framework (e.g., Vitelli et al., 2018) to partial, selectively observed votes in corporate governance. Unlike standard regressions that might discard missing votes, the Mallows model systematically infers unobserved votes using overlapping portfolios, producing posterior rank distributions for each firm. While this approach does not explain why certain funds hold particular stocks or fully resolve endogeneity, it is a data-driven, descrip-

tive method that accommodates non-random ownership more effectively than traditional techniques.[3] Empirically, the strong alignment between active- and passive-fund indicates that selective ownership does not severely distort the final firm-level results. Beyond the application to proxy voting, this technique could readily extend to other settings, such as ESG evaluations or analyst ratings—whenever one seeks to infer collective preferences from scattered, selectively available data.

2. Data and Summary Statistics

Mutual funds have been required by the SEC to disclose their proxy votes since 2003 via Form N-PX. This information is collected by ISS for Russell 3000 companies and is provided in the ISS *Mutual Fund Vote Records* database. Information on each proposal's annual meeting characteristics, sponsors, voting outcomes, and recommendations from management or ISS comes from two ISS databases, *Shareholder Proposals* and *Vote Results*. Glass Lewis recommendations are added using data from Shu (2024). Information on voting rationales comes from Diligent covering the 2014 to 2020 proxy seasons. In categorizing funds as index or non-index (active) funds, the paper follows Appel et al. (2016) by examining fund names for specific index-related strings.[4] Accounting variables come from Compustat, stock returns from CRSP, and executive compensation and insider ownership from Execucomp. Information on firm age is taken from Jay Ritter's website (Field and Karpoff, 2002; Loughran and Ritter, 2004).[5] Business ties between funds and companies are identified through Form 5500 filings with the Department of Labor, matching entities by Employer Identification Number. Appendix Table D.1 describes all variable definitions and sources.

Votes are analyzed at the fund (rather than family) level because the methodology employed in this paper requires votes to be provided at the voter level. That is, the algorithm

[3]Similar ideas appear in Gabaix, Koijen, Richmond, and Yogo (2023), who use portfolio co-occurrences ("asset embeddings") to identify latent firm attributes.

[4]The specific strings I use to identify index funds are: INDEX, IDX, INDX, IND (followed by a space), RUSSELL, S & P, S AND P, S&P, SANDP, SP, DOW, DJ, MSCI, BLOOMBERG, KBW, NASDAQ, NYSE, STOXX, FTSE, WILSHIRE, MORNINGSTAR, and numerical strings such as 100, 400, 500, 600, 900, 1000, 1500, 2000, and 5000.

[5]https://site.warrington.ufl.edu/ritter/files/founding-dates.pdf

does not allow votes to be aggregated into a cumulative percentage at the family level. Although funds in the same family tend to be similar, they are not always unanimous: Appendix Figure D.1 shows that when 2–5 funds in one family vote on the same proposal, about 12% of them disagree, and when over 50 funds in a single family vote on a proposal, there is disagreement about 58% of the time, suggesting that there is significant heterogeneity in voting behavior within a fund family (e.g., Morgan, Poulsen, Wolf, and Yang, 2011; Bubb and Catan, 2022). Because this paper focuses on shareholder proposals, which tend to have lower levels of support than management proposals, the rates of non-unanimous votes are higher than Bolton et al. (2020) and Cvijanović, Dasgupta, and Zachariadis (2016), which cover both management and shareholder proposals.

The main analysis focuses on five shareholder-sponsored governance topics that recur frequently from 2004 to 2020 proxy seasons: requiring an independent board chair, declassifying the board, requiring a majority vote for director elections, adopting proxy access, and say-on-pay proposals (before they became management-sponsored under Dodd-Frank). These topics are selected because they are among the most frequent shareholder proposal categories, reflecting their relevance to investors, and because they generally involve consistent language across firms, which keeps the proposal content broadly similar. Holding the proposal content relatively constant thus enables a meaningful cross-firm comparison of how different funds evaluate the same governance reform. By contrast, many environmental or social proposals vary significantly in their requests—some may emphasize adopting specific policies, others disclosure, and still others broader strategic changes—making them difficult to place on a single scale.[6] To avoid basing the analysis on extremely small samples, only proxy seasons with at least 25 proposals on a given topic are included, and each topic–proxy season must feature at least 50 funds casting both "For" and "Against" votes. Abstentions and withhold votes are relatively uncommon (about 1%) and are excluded. Controlled or dual-class firms are dropped, as they frequently have different regulatory obligations.

[6]Most proxy access proposals in this sample request the adoption of proxy access requiring at least 3% ownership for a minimum of 3 consecutive years, permitting shareholders to nominate up to 25% of the board, with no limit on the number of shareholders combining their shares. Proposals that merely amend existing proxy access rules are excluded, as they differ significantly from those establishing such provisions.

Figure 1 displays the number of shareholder proposals across the 2004 to 2020 proxy seasons for these five topics. Some topics, such as requirements for an independent board chair, have consistently attracted attention throughout 2004–2020, while others, such as proxy access, experienced periods of heightened interest between 2015 and 2019. There is also considerable heterogeneity in proposal outcomes. For example, Table 1 Panel A indicates that board declassification proposals receive roughly 70% support and pass about 75% of the time, while independent board chair proposals average only 30% support and a 31% passage rate.

While proposal outcomes vary across proposal topics, there is not much variation in proxy advisors' recommendations: both ISS and Glass Lewis almost always support proposals on board declassification, majority voting requirement, and say-on-pay (Table 1 Panel A). ISS almost always supports proxy access proposals, while Glass Lewis supports them about 88% of the time. Glass Lewis almost always supports independent board chair proposals (94%), while ISS supports them about two-thirds of the time. While ISS and Glass Lewis generally recommend voting in favor of these proposals, mutual funds do not consistently follow these recommendations, as shown in Panel B of Table 1. Active funds, however, are more inclined to support these proposals, aligning with ISS and Glass Lewis, with the exception of proxy access proposals.

Table 1 Panel C provides insights into the proportion of mutual funds that consistently align with the recommendations of management, ISS, or Glass Lewis. Column (1) examines the behavior across all shareholder proposals for funds that voted on at least 50 votes during a proxy season. The data reveal that approximately 1.2% of funds voted in line with management recommendations more than 99% of the time. In comparison, 8.2% of funds agreed with ISS more than 99% of the time, while less than 1% agreed with Glass Lewis more than 99% of the time. While Column (1) offers a broader view of fund voting behavior, reflecting their monitoring efforts as reflected in their voting behavior, Column (2) focuses on the proposal topics examined in this paper. It shows that approximately 2.1% of funds voted in line with management's voting recommendations more than 99% of the time within a proxy season. The proportions of funds voting in line with ISS and Glass Lewis recommendations

more than 99% of the time are 20.6% and 24.5%, respectively. While some of these funds may blindly follow proxy advisors' recommendations without independent analysis, others might have voting policies that happen to coincide with the stance of management, ISS, or Glass Lewis.

Table 1 Panel D provides evidence on the extent of a "one-size-fits-all" approach toward proposal topics examined in this paper. For funds that voted on more than 10 independent board chair proposals within a given proxy season, about 8% of them always supported such proposals, and 26% always voted against the proposals. For board declassification proposals, mutual funds show overwhelming support: about 70% of the funds voted in favor of all their portfolio companies' proposals, whereas only 2% of the funds voted against all of their portfolio companies' proposals. This indicates a substantial degree of support for board declassification proposals, where many funds support the issue regardless of which company received the proposal. Overall, the extent of a "one-size-fits-all" approach varies across proposal topics.

Overall, these descriptive findings reveal varying fund voting behavior across different shareholder proposal topics. While some proposals consistently receive higher support, others are received with less enthusiasm. Proxy advisors ISS and Glass Lewis show strong support for most proposal topics, yet their influence on fund voting varies. Passive funds do not consistently follow management or proxy advisor recommendations or exhibit voting patterns distinct from active funds. These descriptive patterns offer valuable insights into mutual fund voting behavior, laying the groundwork for the subsequent analyses that examine how funds collectively perceive each firm's governance needs.

3. Methodology: From Fund Votes to Company Rankings

This section explains how fund-level votes are converted into firm-level rankings of mutual funds' governance preferences, focusing on the problem of partial coverage and nonrandom ownership. Section 3.1 highlights why a standard OLS approach—even with fund and firm

fixed effects—can be misleading when funds choose which firms to hold in a non-random manner. Section 3.2 then introduces a Mallows-based method, which exploits overlapping portfolios of similar investors to estimate how each fund might vote on companies it does not actually hold. Section 3.3 discusses key assumptions and offers guidance on interpreting the firm-level rankings.

3.1. Limitations of a Standard Regression

A natural way to gauge investor support for governance reforms is to regress

$$Vote_{ij} \;=\; \alpha_i \;+\; \gamma_j \;+\; \epsilon_{ij}, \tag{1}$$

where $Vote_{ij}$ is Fund i's vote on Firm j (1 for "For," 0 for "Against"), α_i is a fund fixed effect capturing each fund's baseline voting tendency, and γ_j is a firm fixed effect. If funds held all firms randomly, the estimate $\hat{\gamma}_j$ could be interpreted as the overall stance of mutual funds on that firm's governance proposals.

In reality, however, ownership decisions are rarely random. Funds differ in their investment styles (e.g., large-cap growth, ESG emphasis) or strategic preferences (e.g., activist vs. passive), and companies can design policies that attract particular shareholder clienteles. As a result, a fund's decision to hold (and thus vote on) a given firm often depends on unobserved factors—including those directly related to governance preferences. Hence, a naive regression can conflate a firm's true governance appeal with *which* subset of investors happen to own it.

More specifically, because α_i and γ_j are jointly estimated in the same system of equations, the regression's results can heavily reflect *which* funds hold which firms, undermining any interpretation of the firm's coefficient as a stable measure of how investors at large view its proposals. That is, the firm fixed effect $\widehat{\gamma}_j$ may be driven by a handful of funds that specifically chose to hold (or avoid) Firm j. Appendix A illustrates this with a toy example: Fund 1 mainly votes "Against" across nine firms yet unexpectedly casts a "For" for Firm 10. For the regression to fit the data, $\widehat{\gamma}_{10}$ will end up overstating investor enthusiasm that does

not actually exist across the wider mutual-fund community.

Hence, while OLS fixed effects regressions can illuminate certain within-fund or within-firm patterns, the approach may fail to produce a stable cross-firm ordering of governance preferences when funds selectively hold some firms and do not vote on others. This limitation motivates a more flexible framework that accommodates partial coverage to construct firm-level rankings reflecting mutual funds' overall views, as introduced in the next section.

3.2. A Mallows-Based Method for Partial Coverage and Preference Inference

As discussed above, a standard OLS regression with fixed effects can be misleading when not all funds own all firms: the firm-level estimates can reflect which investors happen to hold that stock rather than mutual funds' overall views. The Mallows-based framework (Mallows, 1957; Vitelli et al., 2018) tackles this partial-coverage issue differently. Instead of relying solely on the investors that happen to hold each firm, it *infers* how each fund would likely vote on unowned firms by exploiting overlapping portfolios among similar funds.

Recommender-Systems Analogy. This logic parallels how streaming or e-commerce platforms predict a user's rating (or purchase) for an item the user has not yet encountered. In the famous Netflix Prize, participants were tasked to infer how users would rate films they have yet seen. Similarly, Amazon recommends products a customer has never purchased by referencing the habits of others with overlapping purchase patterns. The Mallows approach applies analogous reasoning to investor votes: it infers how a fund would likely vote on each firm it does not own, based on the votes of comparable investors with overlapping portfolios.

Augmented Rankings. To formalize the idea, each fund's votes on its owned firms constitute a partial ranking. The algorithm then augments this partial ranking by inserting plausible positions for unowned firms. Consider three firms $\{F_1, F_2, F_3\}$. A fund votes "For" at F_1 but "Against" at F_2, implying $F_1 \succ F_2$. If the fund does not own F_3, the algorithm

would initially insert F_3 somewhere in the fund's ranking, then iteratively refine that placement by applying a Bayesian Metropolis–Hastings (M–H) algorithm (see Appendix B for details), leveraging data from other funds that do hold F_3. Because each fund's updated ordering is jointly estimated with a central ranking ρ in the M–H algorithm, it becomes possible to combine these augmented rankings across all funds into a single distribution of firm-level ranks, reflecting how strongly the entire set of funds perceives each firm's governance needs.

Real-Data Illustration. Before detailing the model's mechanics, it is informative to examine how partial coverage appears in the data. Figure 2 illustrates how partial coverage arises for three prominent firms (Intel, Amazon, Tesla). Some funds hold Intel and Amazon only, whereas others hold Amazon and Tesla but not Intel. Despite these incomplete overlaps, certain patterns emerge: for instance, Panel B shows that many funds favor adopting an independent board chair at Tesla over Intel, at Tesla over Amazon, and at Amazon over Intel. This suggests that, within this sample of votes, Tesla is the most preferred firm for implementing an independent board chair, Amazon is in the middle, and Intel is the least favored. Panel C extends the idea to 20 firms, showing that while some investors routinely vote "Against," many deviate for certain companies. Although one can visually detect these patterns, turning them into a systematic measure of how investors, collectively, view each firm's governance needs requires a more formal approach—the Mallows-based framework introduced in this section.

Bayesian Mallows Approach. Formally, let there be N funds, each casting For/Against votes on a subset of firms. The Mallows model posits a central ranking ρ and a scale parameter α determining how tightly individual funds' rankings cluster around ρ. For each fund j, it creates an augmented ranking that inserts plausible positions for any unvoted firms, guided by overlapping portfolios from other funds. A Metropolis–Hastings (M–H) algorithm (described in Appendix B) then proposes small local changes (e.g., swapping two firms) to each fund's augmented ranking and to ρ and α, accepting or rejecting these proposals based on how well they fit the observed votes. Repeating these updates over many

iterations yields a large collection of sampled states. In this paper, I run each chain for 1,000,000 iterations—discarding the first half as "burn-in"—and repeat this process using multiple random seeds, ultimately pooling the remaining draws to approximate the posterior distribution of each firm's rank. Unlike a standard OLS regression that yields a single coefficient per firm—often driven by which investors happen to hold it—this Bayesian approach provides a probability distribution over each firm's rank, revealing not only how the broader mutual-fund community perceives the firm's governance needs, but also our degree of confidence in that assessment.

3.3. Assumptions, Interpretation, and Endogeneity

A central assumption in this paper is that each fund's "For" or "Against" vote reflects its underlying preference about the governance proposal at hand. Although strategic considerations can occasionally shape voting outcomes (e.g., Cvijanović et al., 2016), the literature largely treats votes as investors' true stances on proposals (e.g., Bolton et al., 2020; Bubb and Catan, 2022). The Bayesian Mallows approach aggregates all of these influences into a descriptive measure of how strongly investors, overall, perceive each firm's need for governance reforms.

Of course, this framework does not fully explain why a fund invests in certain stocks (e.g., style constraints or performance criteria) or how deep endogeneity might arise from ownership, which is a common challenge in the literature that characterizes investor preferences (e.g., Bolton et al., 2020; Bubb and Catan, 2022). In extreme scenarios with no overlap (e.g., one group holds only small firms, while another holds only large firms), the algorithm's augmented ranks may become highly uncertain, with wide posterior intervals, for each disconnected group. Still, this is arguably preferable to a standard OLS regression with fund fixed effects, which relies solely on observed votes and can conflate "who owns a firm" with "whether a broader set of investors would support its proposals." In practice, real-world data often exhibit enough overlap, especially through quasi-index or otherwise diversified funds, that the Mallows approach can exploit partial coverage more effectively.

Empirically results suggest that selection does not critically undermine the estimated rankings. Section 4.5 shows that rankings derived solely from active funds (who choose which firms to own) strongly align with those from passive funds (who do not), suggesting that selective ownership does not fatally distort the rank estimates.

4. Which Firms Require Stronger Shareholder Rights?

In this section, the analysis centers on recurring shareholder-sponsored governance proposals—independent board chair, board declassification, majority voting for directors, proxy access, and say-on-pay—which typically feature well-defined reforms and relatively uniform language. This common structure enables more straightforward firm-to-firm comparisons. First, the rankings framework is applied to estimate which companies appear most in need of stronger shareholder rights, as perceived by mutual funds. Second, the resulting firm-level rankings are compared with raw vote tallies. Next, the discussion explores how firm characteristics correlate with these rankings and considers voting rationales to shed light on why funds cast their votes. Finally, I discuss potential other influences such as ISS recommendations and business ties.

4.1. Output

The main output from our Mallows-based method is a posterior distribution of ranks for each firm that receives a shareholder-sponsored proposal on a specific topic in a given proxy season. A lower rank indicates that mutual funds collectively see that firm as more in need of the governance reform; a higher rank means the opposite. Figure 3 offers an example from the 2018 proxy season for 48 companies facing an independent board chair proposal. In this figure, each firm's rank ranges from 1 (highest mutual-fund preference for an independent chair) to 48 (lowest). A more extensive empirical illustration of the chain's estimation process, focusing on the 2018 proxy season, is provided in Appendix C.

Several noteworthy patterns emerge. Tesla and Southwest, for instance, cluster near the top with relatively narrow posterior intervals, suggesting a broad consensus that these firms

would benefit from separating the chair and CEO roles. Notably, a few other high-ranked companies in Figure 3 were also embroiled in governance controversies around 2018. For example, Wells Fargo continued to face fallout from its 2016 fake-account scandal, prompting calls for additional oversight. Indeed, Wells Fargo appears in the top decile, aligning with the strong support by many mutual funds for an independent board chair. By contrast, Honeywell sits near the bottom with a tight distribution, implying consistent agreement that it has relatively little need for such a reform. Some firms (e.g., Emerson Electric) exhibit wide distributions, reflecting either fewer total votes (because fewer funds hold them) or sharper disagreement among those funds that do vote. In a few cases (e.g., Flower Foods, AutoNation), the distributions are bimodal, indicating two distinct groups of investors casting votes in opposite directions.

Table 2 (Panel A) provides more detailed summary statistics of the same 2018 independent-chair proposals, including each firm's mean and median rank and two types of 95% Bayesian intervals.[7] Narrow intervals typically signal that many funds voted and mostly agreed; wide or bimodal intervals arise if fewer funds hold the firm or if investors have strongly different stances.

Although Figure 3 focuses on one topic–proxy season (i.e., independent board chair, 2018), I repeat the same procedure for all five proposal topics, across every proxy season examined in this paper (presented in Figure 1). Naturally, the precision of these firm-level rankings varies not only across individual companies within a given topic and year but also from one proposal topic and proxy season to the next. As shown in Appendix Table D.2, independent board chair and majority-vote proposals typically yield more precise estimates when funds cast a relatively balanced mix of For and Against votes. By contrast, board declassification proposals (for which most funds vote in favor) often produce broader intervals because there is less variation in the underlying votes. Despite these differences,

[7]The 95% highest posterior density interval (HPDI) is the narrowest interval containing 95% of the posterior mass, which can lie anywhere in the distribution. By contrast, the 95% central interval discards an equal 2.5% of the distribution on each tail. Conceptually, one may view these intervals as indicating the range within which the "true" parameter values (here, the firm's rank) lie with 95% probability, according to the posterior distribution. Both intervals are useful for gauging the precision or uncertainty of each firm's estimated rank.

in most topic–year combinations mutual funds still converge on which firms need stronger shareholder oversight.

4.2. Comparing Vote Support and Fund-Based Rankings

One common benchmark for a governance proposal's merits is its vote support, the fraction of outstanding shares cast in favor. Many studies (e.g., Gillan and Starks, 2000; Gantchev and Giannetti, 2020) interpret high vote support as evidence that the proposal is broadly beneficial. In principle, if large segments of the market hold diversified stakes in the same firms (e.g., universal owners) or if investors generally share similar views, raw support should align closely with how the broader market perceives a proposal's merits. Yet ownership structures vary widely: for instance, a few insiders or blockholders may have outsized influence on the final outcome, even when most mutual funds deem a firm to have pressing governance needs. Hence, examining whether raw vote support tracks or diverges from the fund-based rankings can clarify how reliably vote tallies capture broader investor sentiment—and, by extension, the proposal's suitability for the firm.

To examine how closely raw vote support reflects the fund-based ranking, I calculate the Spearman correlation between each firm's vote-support percentile and its rank percentile. Table 3 Panel A shows that the correlations range from about 0.58 for majority-vote proposals and 0.51 for independent board chair, 0.49 for proxy access, 0.27 for board declassification, and 0.15 for say-on-pay. Overall, these moderate-to-weak correlation suggests that raw vote support often diverges from how strongly a broad set of mutual funds perceives a firm's need for these proposals.

Such discrepancies raise the question of why some firms receive strong aggregate support yet rank relatively low in the fund-based measure (or vice versa). One likely explanation concerns *ownership structure*: insiders or blockholders may heavily influence outcomes, even if many funds hold different views of a firm's governance needs. The following regression formalizes this idea:

$$Deviation_{jt} \;=\; \beta_0 \;+\; \beta_1\,\text{OwnershipChars}_{jt} \;+\; \gamma\,X_{jt} \;+\; \varepsilon_{jt}, \tag{2}$$

where $Deviation_{jt}$ is the difference between its vote-support percentile and its rank percentile for firm j in proxy season t. A positive $Deviation_{jt}$ indicates that raw vote support is higher than the fund-based rank would suggest; a negative value indicates the opposite. From this variable, I also construct construct indicator variables for large mismatches (e.g., ± 20 or ± 30 percentile points), which I refer to as *Vote Inflation* or *Vote Deflation*. $\text{OwnershipChars}_{jt}$ includes ownership structure variables such as insider ownership, overall institutional ownership, and ownership concentration. X_{jt} includes controls including market capitalization and the fraction of funds that cast the same vote on every firm within the proposal topic. This latter variable helps capture the impact of investors that hold strong stances on the issue, potentially inflating or deflating raw vote totals if numerous such owners hold positions in the firm.

Table 3 Panel B presents the regression results linking ownership structure to mismatches between raw vote support and the fund-based ranking. In Column (1), a one-percentage-point increase in insider ownership is associated with a 0.12 *decrease* in *Deviation* ($p < 0.01$), consistent with insiders generally siding with management and thereby lowering overall shareholder support. In contrast, institutional ownership increases *Deviation*, suggesting that institutions tend to vote more favorably on shareholder proposals than other investors, causing raw support to exceed what mutual funds' aggregate ranking alone would predict. This aligns with Brav, Cain, and Zytnick (2022), who find that institutional owners often exhibit greater pro-shareholder stances than retail investors. Meanwhile, the negative coefficient on HHI (-0.24, $p < 0.01$) implies that as institution ownership becomes more concentrated, vote support tends to fall below what the rankings would indicate—mirroring the findings of Schwartz-Ziv and Wermers (2022), which suggests that as institutional investors hold larger stakes in a company, they align more closely with management, lowering overall vote support relative to mutual funds' overall preferences.

Columns (2)–(4) focus on *Vote Inflation* (large positive mismatches). For instance, Col-

umn (2)'s linear probability model shows that higher insider ownership lowers the likelihood of vote inflation (threshold: 20 points), similar to Column (1). Columns (3) and (4) test alternative thresholds (30 points) and specifications (logistic), both confirming the same pattern. Columns (5)–(7) parallel these models for *Vote Deflation* (where raw support is lower than the fund-based rank). Columns (5)–(7) similarly examine *Vote Deflation* (large negative mismatches). Across these columns, the fraction of funds uniformly voting "For" or "Against" all firms in that proposal topic strongly predicts larger mismatches—highlighting that companies with a high concentration of ideologically driven funds are prone to more pronounced mismatches in either direction.

Overall, these findings show how ownership composition can create a wedge between raw vote tallies and mutual funds' collective view of a firm's governance needs. Higher insider or concentrated institutional ownership often pushes raw support below the fund-based rank, whereas higher institutional holdings can inflate raw support above what the rankings would suggest. Moreover, the presence of strongly ideological funds can push vote tallies away from the mutual-fund consensus in both directions. In line with theoretical arguments that even share prices can fail to aggregate heterogeneous shareholder preferences (Levit et al., 2024), these results suggest that relying on raw vote support as an indicator of a proposal's intrinsic merits, especially for cross-firm comparisons, can be misleading if ownership structures differ substantially across firms.

4.3. Firm Characteristics

Having established that mutual funds converge on which firms should adopt stronger shareholder rights, this section investigates whether funds favor companies with certain characteristics for these governance reforms. Prior work suggests that firms with more severe agency problems, weaker performance, or larger and more mature profiles often benefit more from shareholder oversight. Although the analysis here does not aim to establish causality, examining how mutual funds' consensus aligns with (or departs from) these theories can offer useful insights into their voting preferences.

It is important to note that each firm's rank emerges from a posterior distribution. This means that some firms' ranks are estimated more precisely than others, often because fewer funds vote on them or because their votes are less consistent. To account for this variability, the full posterior of ranks from the Markov chain Monte Carlo (MCMC) algorithm is used rather than a single point estimate. In other words, multiple draws are taken from each firm's posterior ranks.[8] Each sampled rank is then converted to a percentile, and the corresponding firm characteristic (e.g., board independence or past returns) is likewise converted to a percentile. This conversion also facilitates identifying which characteristics—such as the level of board independence or the overall size of the firm—have a stronger association with the firm's rank. Next, each sampled rank is regressed on the attribute for that particular draw, producing a distribution of coefficient estimates.[9] If at least 97.5% of those estimates lie above (or below) zero, the effect is deemed statistically significant at the 5% level. By relying on the entire posterior, this approach incorporates the uncertainty in each firm's estimated rank, avoiding the false precision that could arise from focusing on a single, potentially noisy point estimate.

4.3.1. Governance Characteristics

Several theoretical and empirical studies suggest that firms with weaker governance structures benefit more from strengthening shareholder rights. For example, Harris and Raviv (2010) theoretically show that as agency costs increase, the optimal control should shift from management to shareholders. Empirically, Bhandari et al. (2021) find that proxy access becomes most valuable in firms with weak governance conditions, and Denes et al. (2017) document that companies with strong takeover defenses are more likely to receive

[8]Each MCMC chain produces 500,000 draws per seed, but only every 10,000th draw is retained (a thinning process commonly recommended by Gelman, Carlin, Stern, Dunson, Vehtari, and Rubin, 2013) to reduce autocorrelation and computational overhead. Typically, this yields 50 posterior samples per seed; pooling across multiple seeds results in roughly 1,600 samples per firm per proposal–year.

[9]It might seem natural to regress each vote on firm attributes with fund fixed effects, but that approach captures only within-fund variation among the companies each fund already holds, neglecting partial coverage and the perspective of non-holding investors. In contrast, I first estimate a cross-firm ranking to reflect how the entire mutual-fund community perceives each firm's governance needs, and only then relate that consensus measure to firm characteristics. This two-step design prevents the selective ownership problem from biasing the coefficient estimates.

shareholder proposals. Building on these insights, this section examines whether company rankings correlate with their governance characteristics.

Figure 4 Panel A presents univariate regression results, regressing each company's percentile rank on one firm characteristic (also in percentile form). The first column focuses on board independence. A negative coefficient (e.g., -0.26 for independent board chair proposals) indicates that lower board independence is associated with a higher rank—implying that funds consider less-independent boards to have a stronger need for reforms. Similar negative coefficients emerge for board declassification, majority voting, and say-on-pay, suggesting that funds systematically favor proposals in companies with less-independent boards.[10] In the next three columns, insider ownership, abnormal executive compensation, and the E-Index generally exhibit positive coefficients. These results suggest that funds prioritize stronger shareholder oversight in firms with higher insider ownership, higher abnormal executive compensation, or more entrenched governance structures.

Figure 4 Panel B extends these regressions to a multivariate setting by including other firm attributes (e.g., performance or size) as controls. Even after accounting for these variables, the negative coefficients for board independence and the positive coefficients for insider ownership, abnormal compensation, and the E-Index remain statistically significant and of comparable magnitude.[11] These findings suggest that mutual funds do take into account governance conditions when determining which firms most require reforms that strengthen shareholder rights, consistent with the idea that higher agency costs prompt a shift in control from managers to shareholders.

4.3.2. Firm Performance

A widely held view in corporate governance posits that underperforming firms stand to benefit more from enhancing shareholder rights (e.g., Cohn et al., 2016; Denes et al.,

[10]Controlled companies (e.g., dual-class structures) are excluded, given their fundamentally different board-independence requirements.

[11]In Appendix Figure D.2, additional multivariate regressions include five further controls frequently used in corporate finance research—leverage, cash, capital expenditures, repurchases, and the KZ-Index (measuring financial constraints). The results are broadly similar to those reported here in Figure 4.

2017). One might therefore expect mutual funds to be more supportive of proposals in poorly performing firms. Yet the results do not reveal a strong or consistent link between performance metrics and company rankings. As shown in Figure 4, coefficients on measures such as abnormal returns, ROA, and market-to-book are modest and sometimes mixed in sign. Multivariate regressions reinforce this lack of a clear pattern.

Because no single indicator perfectly represents firm performance, Appendix Figure D.3 reports alternative specifications using short- and long-horizon returns, different performance windows for ROA, and so on. In a few cases—particularly for independent board chair proposals and, to a lesser extent, say-on-pay—stock returns emerge as moderately significant, however, the economic effect is small. These findings suggest that while performance may matter in certain circumstances, it is not the most decisive factor in mutual funds' voting decisions.

Interviews with practitioners echo this conclusion. Several practitioners in charge of voting, including those from the Big Three (i.e., BlackRock, Vanguard, and State Street), noted that short-term underperformance rarely triggers a push for governance reforms; rather, they might sell shares if a firm's prospects look persistently weak. Others mentioned that performance enters explicitly only for say-on-pay proposals (especially management-sponsored), whereas for shareholder-sponsored governance initiatives, they mainly prioritize governance concerns. Taken together, the empirical results and practitioner perspectives indicate that, although mutual funds do not entirely ignore performance, they do place limited weight on performance when deciding which firms stand to benefit more from implementing shareholder proposals.

4.3.3. Firm Size and Age

A substantial body of research posits that governance structures evolve along a firm's life cycle. Several papers show that younger firms may benefit more from insulating management against takeover pressures, whereas more mature firms might require stronger shareholder oversight to address agency issues (e.g., Cremers, Lauterbach, and Pajuste, 2024; Johnson, Karpoff, and Yi, 2021; Kim and Michaely, 2019; Karakaş and Mohseni, 2021; Field and

Lowry, 2022). Relatedly, firm size, which often correlates with age, is also widely discussed as shaping both existing and optimal governance structures (e.g., Gompers, Ishii, and Metrick, 2003; Cremers, Litov, and Sepe, 2017). Large firms also tend to receive more shareholder proposals (Denes et al., 2017), suggesting that they benefit more from stronger shareholder rights.

The final two columns of Figure 4 examine whether mutual funds favor stronger shareholder rights in older and larger firms. The univariate regressions (Panel A) deliver mixed results for size and, somewhat unexpectedly, show negative coefficients on age for several proposal topics, suggesting that funds actually prefer younger firms to adopt the proposals studied. This finding contrasts with the notion that mature firms stand to gain the most from these reforms (e.g., Field and Lowry, 2022). Once additional variables (e.g., performance and governance attributes) are included in the multivariate regressions (Panel B), firm size tends to become positively associated with strong shareholder rights—especially for proxy access, where the coefficient is both sizable and highly significant, consistent with Cohn et al. (2016) that provide empirical evidence that proxy access is more beneficial for large companies. In contrast, age remains negative or insignificant, indicating that older firms do not attract particularly high support for these proposals.

Several factors may help explain why older firms do not consistently receive stronger support for governance reforms. First, when proposals call for enhancing shareholder rights, mutual funds may prioritize governance features (e.g., board independence, insider ownership) directly tied to the proposal rather than broader life-cycle considerations such as firm age. Second, older firms may be targeted more frequently by shareholder proposals, yet funds might not perceive a pressing governance concern if no clear weaknesses emerge. Finally, while funds may weigh a company's maturity level to some extent, the negative coefficient on age could reflect omitted variables correlated with age, rather than age itself. The next subsection examines a dataset of voting rationales to shed additional light on whether funds explicitly reference these attributes when explaining their votes.

4.3.4. Evidence from Voting Rationales

Although the analyses so far relate mutual funds' rankings to firm- and governance-level characteristics, these correlations are not necessarily causal. A strong association with governance attributes could reflect other unobserved factors, and performance or life-cycle considerations may still matter more than the quantitative evidence suggests. To further investigate which considerations truly drive voting behavior—and whether factors such as performance, size, or age influence funds' voting decisions—this section turns to a dataset of voting rationales, where investors voluntarily disclose explanations for their voting decisions.

The data on voting rationales come from Diligent, spanning proposals on independent board chair, board declassification, majority voting for directors, and proxy access at U.S. companies from 2014 to 2020.[12] Although Diligent reports all fund-level votes in this period, many investors disclose rationales only for certain votes. Further, multiple funds within the same voting manager (i.e., the same internal team making voting decisions) often share a single rationale, especially if their votes do not differ. Following Michaely et al. (2024), these identical rationales are assigned across funds under the same manager when no within-manager vote variation occurs, leading to a final sample of 36,003 rationales from 1,691 funds.

To classify the rationales, I read each distinct rationale and assigned it to one or more categories reflecting the main justification for the vote. As shown in Table 4, the *Governance* category includes rationales emphasizing a firm's governance condition—such as citing governance problems to support a proposal, or highlighting good governance practices as grounds for opposition. For example, *"Management has been very shareholder focused and exercises good governance practices. Will support current management at this time."* The *Performance* category covers references to firm profitability or returns, such as *"Recent returns are declining, so additional oversight is needed."* The *Company characteristics* category includes less frequent mentions of firm-level features beyond performance or governance—for

[12]Say-on-pay proposals are excluded because Diligent's rationales begin in 2014, whereas the main say-on-pay sample covers 2007–2010.

instance, *"Given the company's scale, complexity, and legacy legal/regulatory issues, shareholders would benefit from an independent chairman."* Finally, some rationales simply express a general stance—e.g., *"We generally endorse independent board chairs"*—without mentioning any specific firm attributes.

Table 5 presents the frequency of these categories for votes in favor (Panel A) and votes against (Panel B). Column (1) shows how often each category appears across all rationales disclosed in the sample. For votes in favor, the most frequent category is *General support/opposition* (74.5%), such as *"We believe the chair and CEO roles should be separated."* For votes against, the most common category is *Governance* (80.6%), often stating the firm already meets sufficient board independence or leadership standards (e.g., *"This company's governance practices are sufficiently strong."*).

Although Column (1) illustrates why funds might *generally* vote for or against proposals, it does not clarify why the same fund supports certain companies' proposals but opposes others on the same topic. In practice, some investors disclose rationales only when opposing shareholder proposals, whereas others do so only when voting against management (i.e., supporting shareholder proposals). Hence, Columns (2) and (3) focus on fund–proxy season–topic instances where the same fund provides rationales for both votes for and against, enabling within-fund comparisons. Panel A (votes in favor) Column (2) shows that *General support/opposition* remains common (70.5%), with *Governance* increasing slightly to 12.5%. Column (3) reports how many fund–season–topic combinations ever reference a particular category, revealing that about 31.2% of fund–season–topic combinations mention governance issues in rationales for some companies' proposals but not others. In Panel B (votes against), the *Governance* remains the dominant category, reinforcing that specific board or leadership conditions are a frequent basis for different vote decisions across firms.

Mentions of *Performance*, however, remain limited. In Column (1), performance is noted in only 3.7% of rationales favoring a proposal and 1.4% of those opposing a proposal, and these figures remain modest even in Columns (2) and (3). Mentions of *Company characteristics* are even more infrequent. Very few rationales cite performance, size or age, far less

often than governance characteristics, consistent with the quantitative finding that underperformance or life-cycle characteristics do not correlate with mutual funds' rankings.

Finally, a small fraction of rationales note factors beyond firm-level governance or performance. About 3% of votes against refer to *Engagement* with management (e.g., *"Upon engagement, decided to vote with management"*), and a subset focus on *Proposal term/scope* (e.g., *"Resolution is overly prescriptive"* or *"Proposal's terms exceed standard thresholds"*). While relatively rare, these statements show that certain investors consider details of the proposal itself or direct company communications when determining how to vote.

Overall, the voting rationales corroborate earlier results: mutual funds predominantly mention governance conditions to justify supporting one firm's proposal while opposing another's. By contrast, performance or life-cycle attributes appear only infrequently, suggesting that underperformance or other firm characteristics rarely affect funds' views on which companies require stronger shareholder rights.

4.4. Other Influences: ISS & Business Ties

This paper assumes that mutual funds' votes reflect their underlying governance preferences, while recognizing that preferences can be shaped by numerous factors—including proxy advisors, media coverage, peer-fund opinions, and direct engagement with companies. Although the analysis does not aim to disentangle every possible source of preferences, one potential concern is whether the observed rankings simply reflect these external influences rather than the fund-level considerations discussed earlier. To address this, this section examines the potential impacts of proxy advisor recommendations and business ties, showing that these external factors, do not fully determine mutual funds' rankings.

4.4.1. ISS

Extensive research highlights the role of proxy advisors in guiding fund voting behavior and outcomes (e.g., Iliev and Lowry, 2015; Malenko and Shen, 2016). One might naturally ask whether the firm-level rankings simply mirror the voting recommendations of major proxy advisors such as ISS and Glass Lewis. In practice, however, both ISS and Glass Lewis

often issue identical recommendations for many of the governance proposals studied in this paper (Table 1 Panel A). For instance, for board declassification proposals, both ISS and Glass Lewis support in over 99% of cases, providing little variation to explain cross-firm differences in the rankings.

While Glass Lewis mostly supports other proposal topics studied in this paper, ISS recommendations are more nuanced for certain proposal topics. In the case of independent board chair proposals, for example, ISS endorses about 65% of them. Not surprisingly, firms that ISS recommends voting against tend to appear lower in the fund-based rankings (Figure 6, Panel A). One might wonder if these recommendations fully account for variations in rank. To investigate this, I estimate rankings for a subset of companies where proxy advisors ISS and Glass Lewis both recommend voting in favor, while management recommends voting against. Panel B of Figure 6 shows that, even within this subsample (focusing on independent board chair proposals in the 2018 proxy season), the resulting firm-level ranks still display meaningful dispersion. This indicates that while proxy advisors exert a notable influence, the variation in firm rankings is not mainly driven by their recommendations.

4.4.2. Business Ties

Another possibility is that the rankings are biased by business ties between funds and the companies in which they invest. For example, certain funds provide or manage services—such as pension plans, insurance, or brokerage—for companies whose proposals they vote on. In principle, such "affiliated" funds might be inclined to favor management, potentially skewing the ranks of affiliated companies. To explore this, I reestimate rankings excluding the votes of affiliated funds.

In this sample, affiliated funds represent around 3% of total votes. Consistent with Cvijanović et al. (2016), affiliated funds are 2–5 percentage points more likely to vote with management (Table 7, Panel A). Yet their impact on the overall rankings appears negligible. Reestimating the rankings while excluding votes from affiliated funds leaves the average firm's percentile rank nearly unchanged: in Table 7 Panel B, affiliated companies' mean rank shifts only from 50.54 to 50.51, an economically small and statistically insignificant

difference. Consequently, while business ties can alter individual funds' voting decisions, they have little impact on the aggregate patterns captured by the fund rankings.

4.5. Active vs. Passive Funds

The monitoring role of passive and index funds is a subject of ongoing debate. While some studies suggest that these funds are passive in their monitoring behavior because of limited incentives to engage (e.g., Heath et al., 2022), others argue that their large ownership stakes motivate them to exert influence (e.g., Appel et al., 2016; Brav, Jiang, Li, and Pinnington, 2023), especially given that "exit" is not a realistic option for index investors. In light of this, it is important to determine whether active and passive funds exhibit distinct governance preferences, and whether the main findings are driven by one group more than the other. If passive funds exerted minimal effort in voting, it would be natural to observe a relatively uniform distribution of rankings for those funds, whereas most variation in governance preferences would be attributable to active funds.

Table 6 shows that the correlations between each firm's median rank from active and passive funds generally range between 0.5 and 0.8, indicating broad agreement on which companies would benefit more from stronger shareholder rights. Next, I investigate how each group weighs governance and firm characteristics: Figure 5 reveals largely similar preferences, though a few differences emerge. For instance, passive funds show a particularly strong association between board independence and firm rankings, whereas active funds place greater emphasis on insider ownership and abnormal executive compensation. The relationship between company performance and rankings is more mixed for passive funds than for active funds. Additionally, the associations with firm size and age shown in Figure 4 are mainly driven by active funds, with a more mixed relationship for passive funds.

Overall, there is no pronounced difference between active and passive funds' rankings, with little evidence suggesting that passive funds are passive monitors. They do not adopt a more uniform or "one-size-fits-all" voting strategy compared to active funds, nor do they appear more reliant on proxy advisors. Instead, passive and active funds show substantial

overlap in which firms they see as requiring stronger governance, although the specific factors shaping those judgments differ to some extent. This outcome aligns with the perspective that both active and passive funds take governance attributes seriously in their voting behavior, contributing to ongoing discussions about passive investors' monitoring (e.g., Appel et al., 2016; Heath et al., 2022).

Importantly, this high correlation alleviates concerns that non-random ownership might bias the estimates of which firms need stronger shareholder rights. If active funds selectively held exactly those firms where they planned to push reforms, one would expect their rankings to diverge from those of passive funds, who must hold the entire index and thus face fewer selection effects. The strong correlation between these two groups therefore suggests that any selection effect from active funds' portfolio choices does not fundamentally undermine the cross-firm measure of governance needs.

5. Conclusion

This paper develops a novel ranking method to identify which firms mutual funds regard as needing stronger shareholder rights, by examining how funds vote on recurrent shareholder proposals across different portfolio companies. While standard regressions or fixed-effects models may struggle to estimate investors' collective preferences when not all funds own every firm, this paper exploits overlaps in ownership to make informed inferences about each fund's likely stance on companies it does not hold, offering a more comprehensive perspective on how mutual funds, in aggregate, evaluate each company's governance needs.

The analysis uncovers three main findings. First, while the literature often emphasizes that institutional investors differ in their baseline preferences (e.g., some funds are inherently more management-friendly), the data reveal substantial alignment among funds regarding which firms require stronger shareholder rights. This indicates that funds do consider firm characteristics when voting on proposals, rather than applying a "one-size-fits-all" approach to voting. It also demonstrates that heterogeneity in overall ideology and alignment on firm-specific needs can coexist. Second, the firm-level rankings frequently diverge from raw vote

tallies, especially in firms with high insider ownership or concentrated ownership. As a result, high or low support levels may not always reflect the broader mutual-fund community's view of a firm, offering a fresh perspective to researchers and practitioners who rely on overall vote outcomes to gauge shareholder sentiment. Third, funds' votes correlate strongly with governance attributes—such as board independence, insider ownership, and abnormal executive compensation—while performance, size, and firm age, often presumed to shape governance structures, play a less critical role. This pattern suggests that certain important dimensions of shareholder rights may be overlooked in proxy voting decisions.

While this paper makes progress on aggregating mutual fund preferences in ways that previous approaches could not, it remains descriptive rather than causal. Many factors shape each fund's voting decisions, and the framework does not aim to disentangle every channel through which preferences form. Instead, it offers a clear picture of which firms the broader fund community views as needing stronger oversight. Overall, the findings highlight that proxy voting can address certain governance challenges but does not necessarily incorporate all dimensions relevant to firm oversight. By showing how funds collectively perceive each firm's governance priorities, this paper aims to spur further inquiry into why specific governance attributes receive more scrutiny and how investors' collective priorities might shift over time.

Appendix A. Limitations of OLS Fixed Effects in Sparse Ownership Settings: A Toy Example

Overview. A natural way to measure investor preferences is to run an OLS regression with fund and firm fixed effects, interpreting each firm's coefficient as a proxy for how investors collectively view its governance proposals. However, when only certain funds own a given firm, those coefficients can be dominated by the voting patterns of a few investors. This appendix provides a toy example illustrating the problem and contrasts it with the Mallows-based approach from Section 3. Exhibit 1 shows a hypothetical dataset with five funds and 10 firms. Fund 1 typically votes "Against" at firms with which it has business ties (Firms 1–9) but casts a "For" vote at Firm 10.

OLS Fixed-Effects Results. Exhibit 2 shows that Company 10's coefficient $\hat{\gamma}_{10}$ is large and statistically significant, even though only one fund (Fund 1) actually votes "For." Because fund and firm fixed effects are jointly determined in a system of equations, the results can heavily reflect which funds hold which firms—undermining any interpretation of the firm's coefficient as a stable measure of how investors at large view that proposal.

Contrast With the Mallows Approach. Exhibit 3 shows how a Mallows-based Metropolis–Hastings MCMC produces posterior distributions of rank for each firm based on Exhibit 1 data. Because only five funds voted across 10 firms, all rank distributions are wide. Specifically, even though Fund 1 supports the proposal at Firm 10, the model recognizes limited coverage and yields a broad range of plausible ranks for that firm.

Implications for Linking Estimates to Firm Characteristics. OLS regressions provide only a coefficient and standard error for each firm, allowing limited flexibility to account for uncertainty when relating these estimates to firm characteristics (e.g., size, performance). By contrast, the Mallows-based approach yields a full posterior distribution for each firm's estimated rank, capturing both central tendencies and the uncertainty stemming from incomplete or non-random coverage. This helps avoid overstating correlations that might arise simply because a small set of investors holds (and votes on) particular firms.

Exhibit 1. Toy Example: Fund Ownership and Votes

Each row shows one fund's votes (1 = "For", 0 = "Against") across ten firms. A "·" means the fund does not own that firm (thus, no vote). In this hypothetical example, Fund 1 generally votes "Against" but casts one "For" at Firm 10.

	Firm 1	Firm 2	Firm 3	Firm 4	Firm 5	Firm 6	Firm 7	Firm 8	Firm 9	Firm 10
Fund 1	0	0	0	0	0	0	0	0	0	1
Fund 2	·	·	·	0	·	0	1	·	0	·
Fund 3	0	0	·	·	1	·	·	·	·	·
Fund 4	·	·	1	·	·	·	·	·	·	·
Fund 5	·	·	·	1	·	0	·	·	·	·

Exhibit 2. OLS Results With Fund and Firm Fixed Effects

The dependent variable is "Vote" (1 = For, 0 = Against). All regressions include fixed effects for Funds 1–5 (with Fund 1 as baseline) and Firms 1–10 (Firm 1 baseline). Fund 1 and Firm 1 are baseline categories.

	Coeff	**Std. Err.**	**t-stat**	**p-value**
Fund Fixed Effects				
Fund 2	0.25	0.29	0.85	0.43
Fund 3	0.33	0.34	0.98	0.37
Fund 4	1.00	0.59	1.70	0.14
Fund 5	0.63	0.39	1.60	0.16
Firm Fixed Effects				
Firm 2	−0.00	0.42	−0.00	1.00
Firm 3	0.17	0.54	0.31	0.77
Firm 4	0.21	0.46	0.45	0.67
Firm 5	0.50	0.42	1.20	0.28
Firm 6	−0.13	0.46	−0.27	0.79
Firm 7	0.54	0.47	1.14	0.30
Firm 8	0.17	0.54	0.31	0.77
Firm 9	0.04	0.47	0.09	0.93
Firm 10	1.17	0.54	2.17	0.07
Intercept	−0.17	0.34	−0.49	0.64
Number of obs				20
R-squared				0.72
Adj R-squared				0.12

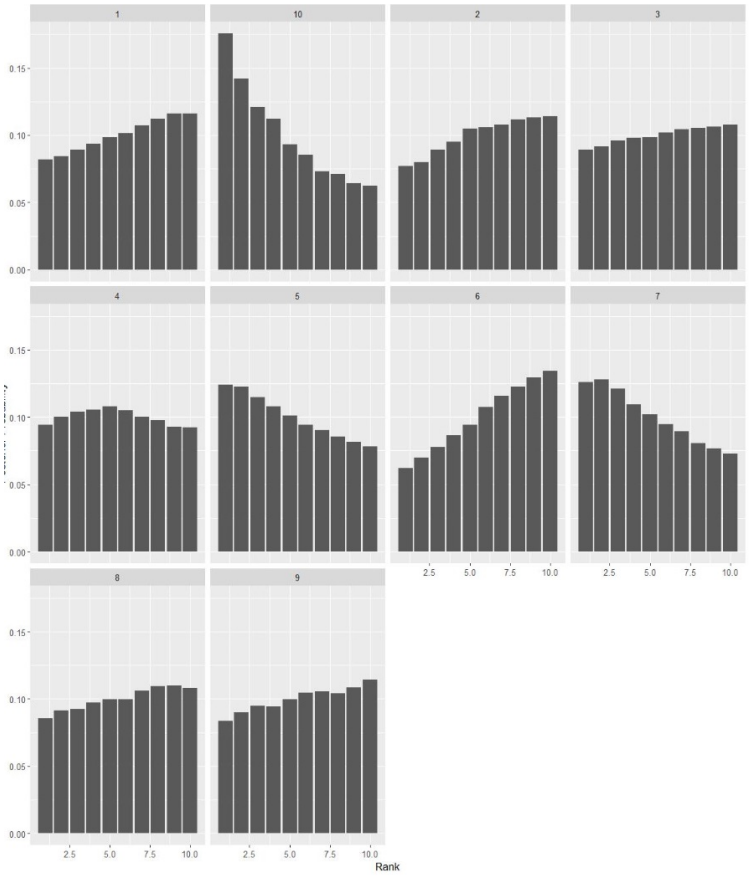


Exhibit 3. Posterior Distribution of Rank from the Mallows Method. Based on the same data in Exhibit 1, the Mallows approach produces posterior distributions over each firm's rank. With minimal overlap and few total votes, each firm's distribution is wide, indicating high uncertainty.

Appendix B. Technical Details of the Mallows Model and M–H MCMC Algorithm

This appendix provides the formal definition of the Mallows model (Mallows, 1957), extended by Vitelli et al. (2018) to accommodate incomplete rankings, and outlines the Metropolis–Hastings (M–H) algorithm that implements the model in a Bayesian framework.

B.1. Mallows Model (Mallows, 1957)

Let n be the number of items (e.g., firms), and let R_j be the ranking provided by assessor (e.g., fund) j, for $j = 1, \ldots, N$. In its original formulation, the model assumes that each assessor provides a *complete* ranking of all n items. The Mallows model posits a central (often called "consensus") ranking ρ and a scale parameter $\alpha \geq 0$ controlling how tightly individual rankings cluster around ρ. Denote by $d(\cdot, \cdot)$ a distance function (e.g., Kendall's τ, footrule) between two rankings. Formally, for an observed ranking R,

$$P\big(R \mid \rho, \alpha\big) = \frac{\exp\big[-(\alpha/n)\, d(R, \rho)\big]}{Z_n(\alpha)}, \tag{B1}$$

where $Z_n(\alpha)$ is a normalizing constant ensuring proper normalization. If N complete rankings $\{R_1, \ldots, R_N\}$ are conditionally independent given (ρ, α), then

$$P\big(R_1, \ldots, R_N \mid \rho, \alpha\big) = \frac{1}{Z_n(\alpha)^N} \exp\Big[-\frac{\alpha}{n} \sum_{j=1}^{N} d\big(R_j, \rho\big)\Big]. \tag{B2}$$

Although ρ is sometimes referred to as a "true" or "consensus" ranking, this does not imply perfect unanimity among assessors; rather, ρ is a single reference ordering around which observed rankings cluster. In practice, n can be large, and not all funds rank all firms. That is, fund j may only vote on a subset $S_j \subseteq \{1, \ldots, n\}$. Further, real-world votes may contain inconsistencies (e.g., $A \prec B$, $B \prec C$, yet $C \prec A$). These complexities require extending the original model, as described next.

B.2. Bayesian Extension to Partial Rankings (Vitelli et al., 2018)

While the classical Mallows model requires each assessor to provide a complete ranking of all items, this assumption rarely holds in real-world settings—especially fund voting data, where many funds vote on only a subset of firms. A Bayesian approach can more naturally handle partial (or even inconsistent) data: it treats unranked items as missing information and infers their plausible positions via posterior sampling.

Posterior Objective and Augmented Rankings. In a Bayesian version of the Mallows model, the main goal is to estimate

$$P\big(\rho, \alpha, \{\tilde{R}_j\} \;\big|\; \{\text{partial } R_j\}\big),$$

where ρ is the central ranking, $\alpha \geq 0$ is the scale parameter controlling how tightly individual rankings cluster around ρ, and $\tilde{R}_j$ is the *augmented ranking* for assessor j, extending its partial ranking R_j to all n items.[13] Following Vitelli et al. (2018), each partial ranking R_j is converted into a complete (augmented) ranking $\tilde{R}_j$ by inserting any unranked items in a provisional order that respects known relative positions. These augmented rankings are updated iteratively rather than fixed in advance, allowing the sampler to "fill in" missing votes consistently across overlapping portfolios.

Metropolis–Hastings MCMC Algorithm. The posterior distribution is approximated through a Metropolis–Hastings Markov chain, which at each iteration:

1. **Augmented Ranking Updates.** For each assessor j, the algorithm proposes a small local change to its augmented ranking $\tilde{R}_j$ (e.g., swapping two adjacent items or performing a short "leap-and-shift"). This proposal is then probabilistically accepted or rejected[14] according to how well the new ranking aligns with the central ranking

[13] Formally, $P\big(\rho, \alpha, \{\tilde{R}_j\} \mid \{\text{partial } R_j\}\big) \;\propto\; \prod_{j=1}^{N} \exp\big[-(\alpha/n)\, d(\tilde{R}_j, \rho)\big] \;\times\; (\text{priors on } \rho, \alpha, \tilde{R}_j)$.

[14] Formally, the acceptance probability for a proposed update from $\tilde{R}_j^{t-1}$ to $\tilde{R}_j^{*}$ is

$$\min\Big\{1,\; \frac{\exp\big[-(\alpha/n)\, d(\tilde{R}_j^{*}, \rho)\big]}{\exp\big[-(\alpha/n)\, d(\tilde{R}_j^{t-1}, \rho)\big]} \;\times\; \frac{q(\tilde{R}_j^{t-1} \mid \tilde{R}_j^{*})}{q(\tilde{R}_j^{*} \mid \tilde{R}_j^{t-1})}\Big\},$$

ρ and with the partial data R_j. By iterating this process, the algorithm refines each fund's augmented ranking to reflect missing votes more consistently.

2. **Central Ranking Update.** A small local modification (e.g., swapping two adjacent items) is proposed in ρ. The chain then *accepts or rejects* the new ρ based on how well the modified ranking fits all $\{\tilde{R}_j\}$.[15]

3. **Scale Parameter Update.** Propose a new α (the scale parameter) via a random-walk move, then accept or reject it according to the Metropolis–Hastings ratio.[16]

These updates repeat for many iterations, during which the Markov chain gradually converges to its stationary distribution (i.e., the posterior). The initial portion of the chain (the "burn-in" phase) is discarded to reduce dependence on arbitrary starting values. In this paper, each chain is run for 1 million iterations, discarding the first 500,000 as burn-in, and results from 32 chains with distinct seeds are combined. After convergence, the retained draws approximate $P\big(\rho, \alpha, \{\tilde{R}_j\} \mid \{\text{partial } R_j\}\big)$.

Interpretation of Posterior Samples. Because each retained draw includes a sampled ρ, the posterior provides a full probability distribution over each firm's rank, rather than a single coefficient (as in OLS). One can thus compute point estimates like the median rank, along with credible intervals capturing uncertainty. Firms with sparser or more conflicting votes typically exhibit wider posterior intervals, indicating less certainty about their true position in the overall ranking.

where $q(\cdot \mid \cdot)$ is the proposal density. This is the standard Metropolis–Hastings step.

[15]The acceptance probability is analogous, factoring in $\exp[-(\alpha/n)\, d(\tilde{R}_j, \rho)]$ across all j, multiplied by any prior on ρ.

[16]As with other M–H updates, acceptance depends on how α changes the overall likelihood and any prior on α.

Appendix C. M–H MCMC: Empirical Illustration

To demonstrate how the augmented rankings, central ranking, and scale parameter are estimated, I use data from independent board chair proposals during the 2018 proxy season as an illustrative example. A detailed description of the algorithmic procedure can be found in Appendix B.

C.1. Augmented Rankings

Table C.1 presents a single fund's augmented rankings for illustrative purposes; the algorithm repeats the same procedure for every fund in the sample. At the start of the Markov chain (iteration 1), each assessor is assigned a random ranking for the companies under consideration, but in a way that remains consistent with the fund's voting data. Specifically, companies the fund voted against (highlighted in red in Table C.1) receive higher numeric values (closer to 48), reflecting a lower perceived need for an independent board chair, whereas companies the fund voted for (highlighted in green) receive lower numeric values (closer to 1). In other words, the algorithm enforces that all companies voted for receive lower numerical ranks (closer to 1) than any company voted against (closer to 48).

Table C.1 reports the augmented rankings at selected iteration points: (1, 101, 201, 301, 401) from the early, non-converged phase of the chain and (999,501, 999,601, 999,701, 999,801, and 999,901) after the chain has converged. Each assessor's augmented ranks can change or remain the same at each iteration. Given the high autocorrelation between consecutive iterations, I report iteration points that are 100 iterations apart to reduce redundancy. The early phases of the chain exhibit considerable fluctuation due to the randomness at iteration 1. For companies with no direct vote (i.e., neither in red nor green), the chain typically exhibits more persistent fluctuations, as the algorithm continues to "guess" their relative positions. Meanwhile, companies with vote information (red or green) often fluctuate less.

Figure C.1 complements Table C.1 by visualizing the fund's augmented ranks at every iteration from 1 through 1,000,000. Darker colors (reflecting higher numeric ranks, closer to 48) are predominantly observed for firms that received votes against (highlighted in red in

Table C.1), whereas lighter colors (corresponding to lower numeric ranks, closer to 1) are associated with firms that received votes in favor (highlighted in green in Table C.1). For firms with no vote information, the algorithm assigns ranks that tend to fall in between while also exhibiting greater variability.

Overall, the augmented rankings are consistent with the fund's underlying vote data; and when there is less information available (i.e., firms with no vote), the algorithm makes guesses and appropriately maintains uncertainty by allowing for greater rank variability.

C.2. Central Ranking

In addition to each fund's augmented rankings, the chain also uses data from all funds to produce a single ρ at each iteration. Starting from a random ranking at iteration 1, the central ranking ρ is updated by proposing small local modifications, then accepting or rejecting these proposals based on how well they fit the augmented rankings, as described in Appendix B. Figure C.2 shows how it converges for seed 101. To mitigate dependence on any particular seed, I repeat this procedure for 32 seeds, discarding the first half-million iterations of each as burn-in. From the remaining half-million, I thin by retaining every 10,000th draw, producing a posterior sample of global rankings for each seed. Combining these samples provides a posterior distribution of rank for each firm, as presented in Figure 3.

C.3. Scale Parameter

While the main focus is on rankings, the algorithm also estimates a scale parameter α that controls how tightly the distribution of rankings is concentrated around ρ. Larger values of α indicate greater certainty in the central ranking (i.e., less dispersion among possible rankings), whereas smaller values imply more variability. Figure C.3 illustrates how α evolves over one million iterations for seed 101, showing that it converges within the early stages of the chain.

Table C.1. Evolution of One Fund's Augmented Rankings

This table presents the augmented ranks assigned by a single fund to 48 companies that received independent board chair proposals during the 2018 proxy season. The ranks are shown at selected iteration points out of one million total iterations (Seed 101). Higher values correspond to less perceived need for an independent board chair. Companies the fund voted against are highlighted in red, and those the fund voted for are highlighted in green. Specifically, the fund voted against the following companies' proposals: Abbott Laboratories, AbbVie Inc., Archer-Daniels-Midland Company, Chevron Corp., Honeywell International Inc., Intel Corp., Pfizer Inc., The Allstate Corp., Union Pacific Corp., and Verizon Communications Inc. The fund voted for the following companies' proposals: Allergan Plc, Amazon.com, Inc., AT&T Inc., Cardinal Health, Inc., Celgene Corp., JPMorgan Chase & Co., Knight-Swift Transportation Holdings, Inc., Prudential Financial, Inc., and Southwest Airlines Co. The fund did not own the remaining companies in the table.

	Iteration									
Firm	1	101	201	301	401	999501	999601	999701	999801	999901
Abbott Laboratories	46	44	46	32	29	26	36	34	28	33
AbbVie Inc.	25	34	34	43	40	45	33	39	48	28
Alexion Pharmaceuticals, Inc.	30	42	29	15	42	10	20	21	21	12
Allergan Plc	6	4	14	12	16	15	7	9	18	7
Amazon.com, Inc.	19	6	6	4	2	6	3	10	2	20
American Express Company	22	12	15	18	36	20	23	30	8	6
AmerisourceBergen Corp.	20	11	13	6	9	19	21	45	12	16
Archer-Daniels-Midland Company	44	21	26	34	41	24	42	47	34	38
AT&T Inc.	8	16	17	29	3	4	19	4	13	4
AutoNation, Inc.	13	25	21	25	47	11	13	8	7	5
Bank of America Corp.	32	40	8	5	17	30	24	42	32	36
Baxter International Inc.	21	22	30	22	27	39	41	28	30	30
Booking Holdings Inc.	37	47	39	13	20	25	28	35	19	47
Cardinal Health, Inc.	18	20	18	17	13	17	16	19	20	23
Celgene Corp.	14	15	11	14	5	8	5	6	3	25
Charter Communications, Inc.	36	33	27	37	10	29	11	5	5	3
Chevron Corp.	26	32	42	40	39	48	47	48	44	44
Dillard's, Inc.	1	2	43	11	6	5	1	1	1	1
Emerson Electric Co.	24	8	28	44	45	36	43	36	33	29
Exxon Mobil Corp.	4	1	33	19	4	9	10	15	26	17
Flowers Foods, Inc.	35	17	35	28	35	33	8	12	11	8
General Electric Company	48	43	32	21	1	23	25	14	24	15
General Motors Company	47	30	24	7	30	47	18	33	36	11
Gilead Sciences, Inc.	23	24	1	1	21	12	12	38	46	43
Honeywell International Inc.	39	27	38	41	34	38	38	25	43	48
Intel Corp.	33	41	41	42	44	28	35	32	27	26
International Business Machines Corp.	41	37	44	2	7	34	31	24	29	13
JPMorgan Chase & Co.	3	18	7	20	15	16	15	18	17	19
Knight-Swift Transportation Holdings, Inc.	10	3	10	3	19	22	4	7	6	18
Mattel, Inc.	40	10	2	45	25	37	27	3	4	34
McKesson Corp.	11	35	31	23	8	1	29	16	22	21
MetLife, Inc.	38	13	37	9	24	21	30	40	23	22
Pfizer Inc.	29	26	19	36	37	31	48	46	45	27
PNM Resources, Inc.	5	38	45	35	12	44	44	20	39	41
Prudential Financial, Inc.	2	9	16	26	14	13	17	22	14	2
Sanderson Farms, Inc.	17	29	22	27	18	35	37	26	31	45
Service Corp. International	34	39	5	8	11	14	14	17	16	10
Southwest Airlines Co.	7	19	3	16	22	2	6	11	10	9
Target Corp.	31	46	12	10	43	32	34	44	42	46
Tenet Healthcare Corp.	42	7	23	33	31	18	39	37	35	39
Tesla, Inc.	9	5	40	24	48	3	2	2	9	24
The Allstate Corp.	45	28	47	47	28	42	46	43	38	37
The Boeing Company	28	31	36	39	33	40	45	41	41	42
The Interpublic Group of Companies, Inc.	15	45	9	46	46	43	40	31	47	35
The Kroger Co.	12	14	25	30	26	41	32	27	37	40
Union Pacific Corp.	43	48	48	48	23	46	22	29	40	31
Verizon Communications Inc.	27	23	20	31	38	27	26	23	25	32
Walmart Inc.	16	36	4	38	32	7	9	13	15	14

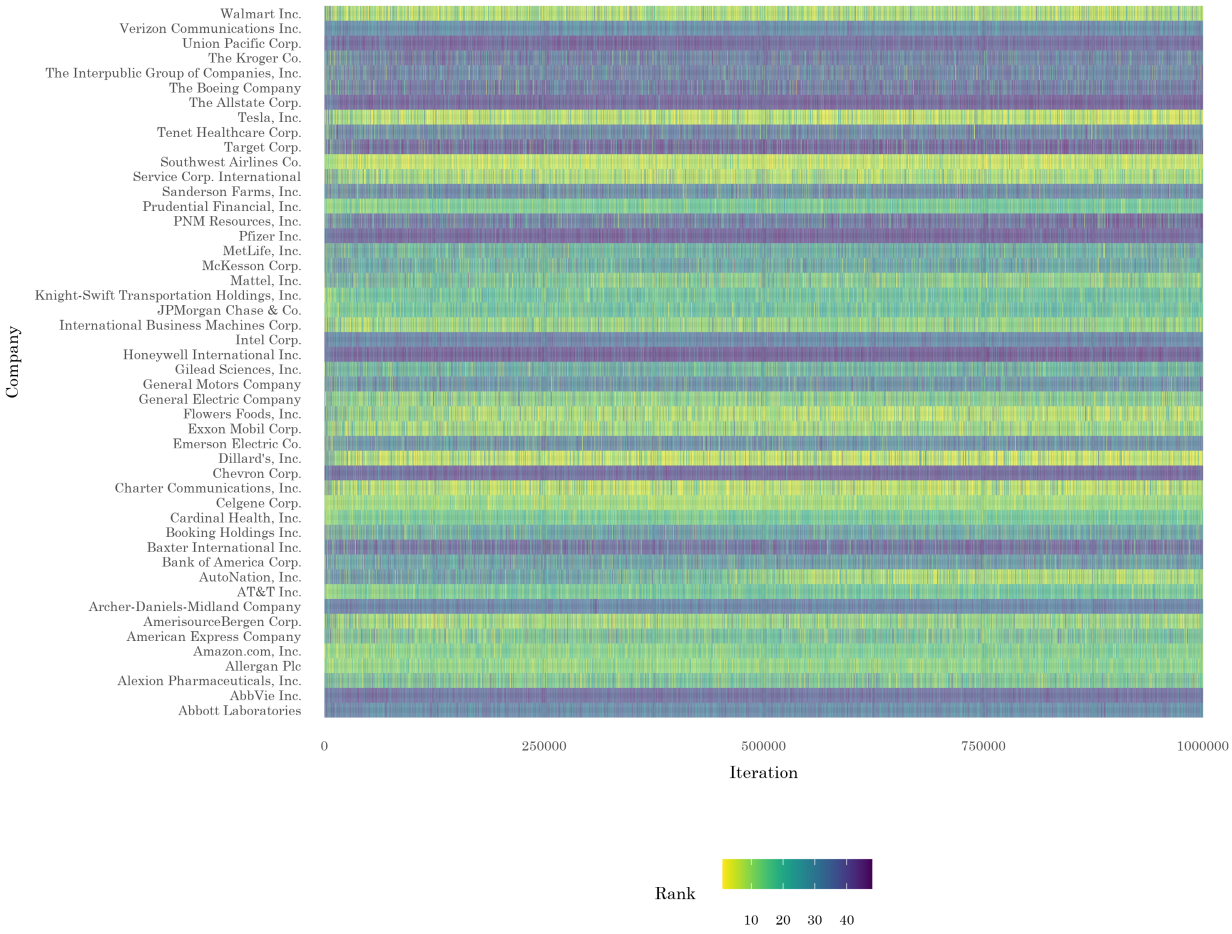


Figure C.1. Heatmap of One Fund's Augmented Rankings. This heatmap shows how one fund's augmented ranking evolves over one million iterations for companies that received independent board chair proposals during the 2018 proxy season. The color scale indicates the rank at each iteration, with darker hues representing less perceived need for an independent board chair. The fund voted against the following companies' proposals: Abbott Laboratories, AbbVie Inc., Archer-Daniels-Midland Company, Chevron Corp., Honeywell International Inc., Intel Corp., Pfizer Inc., The Allstate Corp., Union Pacific Corp., and Verizon Communications Inc. The fund voted for the following companies' proposals: Allergan Plc, Amazon.com, Inc., AT&T Inc., Cardinal Health, Inc., Celgene Corp., JPMorgan Chase & Co., Knight-Swift Transportation Holdings, Inc., Prudential Financial, Inc., and Southwest Airlines Co. The fund did not own the rest of the companies. Seed 101 is used to produce this figure.

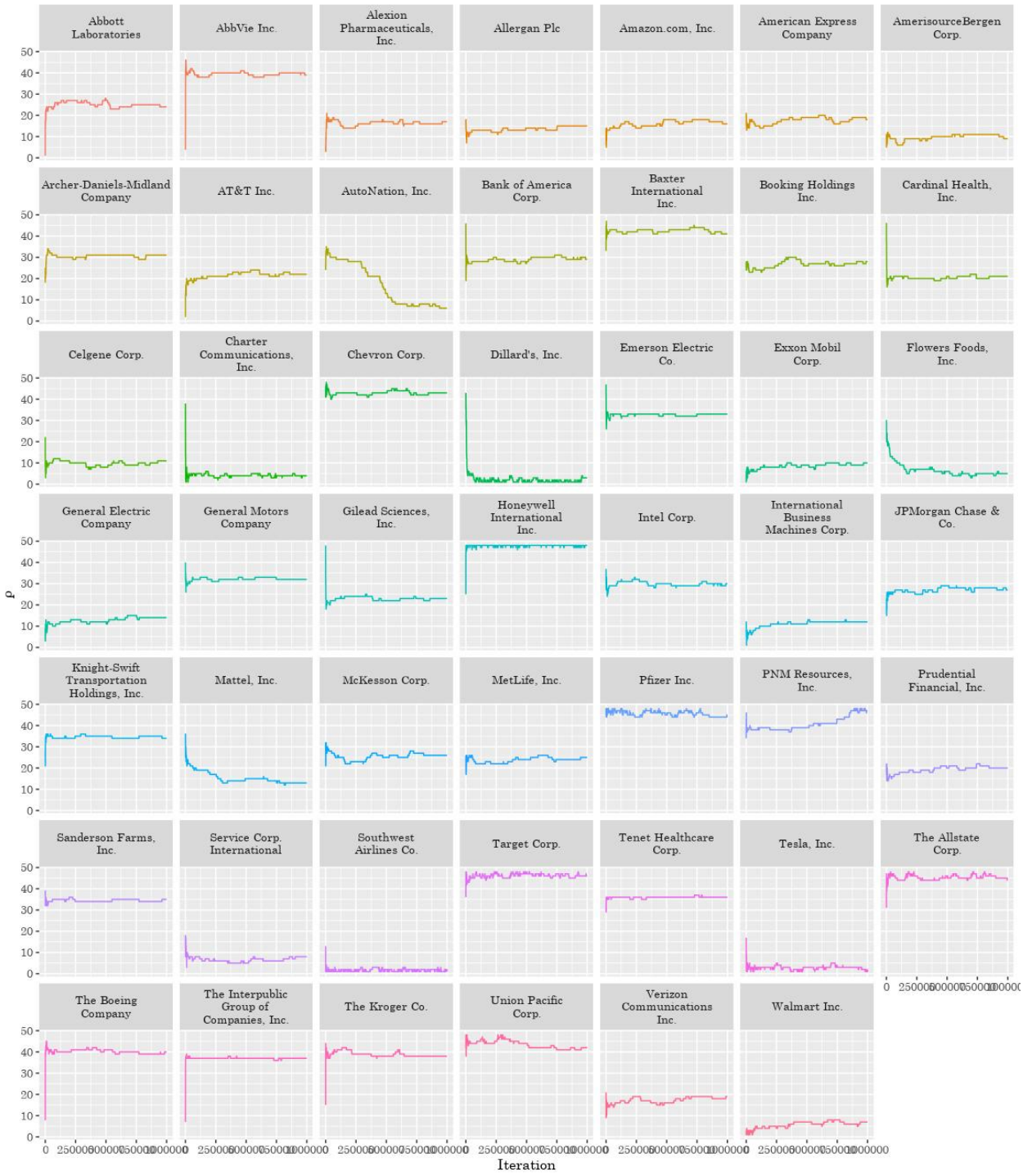


Figure C.2. Convergence of ρ. This figure displays changes in estimated rank (ρ) over 1,000,000 iterations for firms receiving independent board chair proposals during the 2018 proxy season. The results from seed 101 are shown as an example. The initial 500,000 observations are burn-ins, and the latter 500,000 observations from each of 32 seeds are used to produce Panel A of Table 2 and Figure 3.

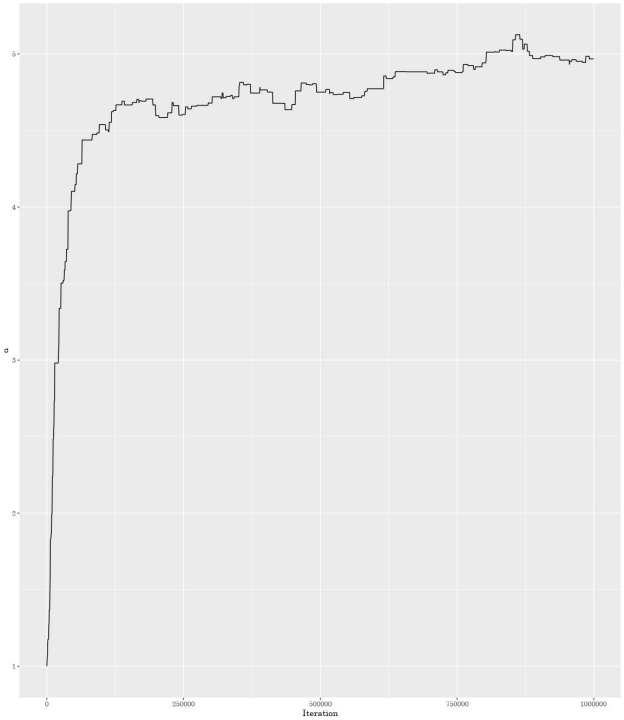


Figure C.3. Convergence of α. This figure displays in the estimated value of the scale parameter α over 1,000,000 iterations for firms receiving independent board chairman proposals in the 2018 proxy season. Results from seed 101 is shown as an example.

Appendix D. Additional Figures and Tables

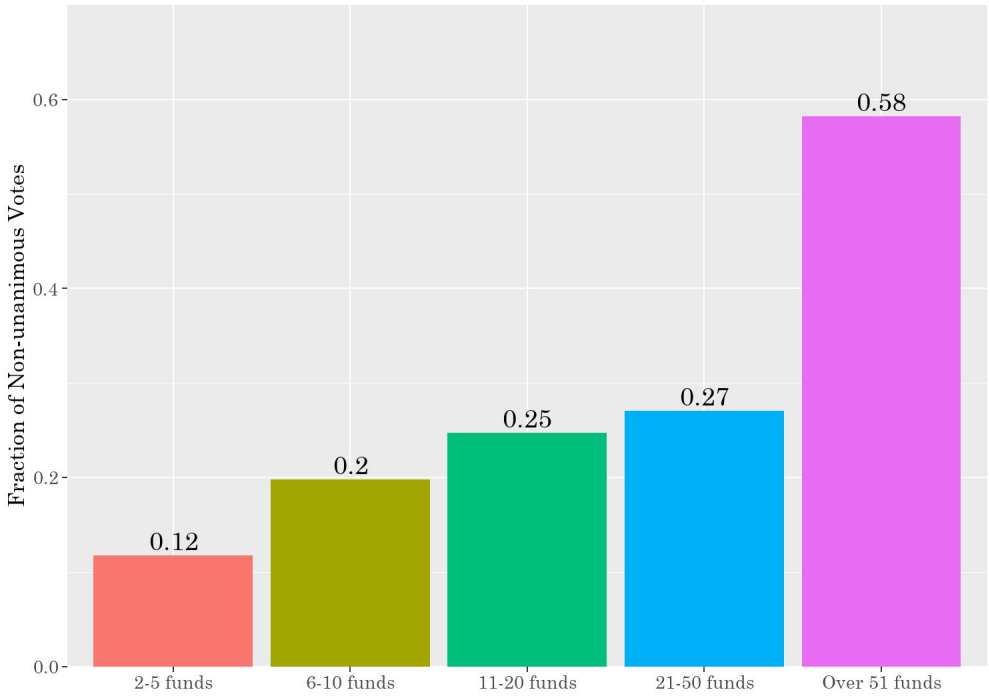


Figure D.1. Fraction of Non-Unanimous Votes Within a Fund Family. The figure presents the fraction of non-unanimous votes within a fund family when an institution has multiple funds voting on the same proposal, focusing on the five proposal topics studied in this paper. The x-axis displays the number of funds within a family voting on the same proposal.

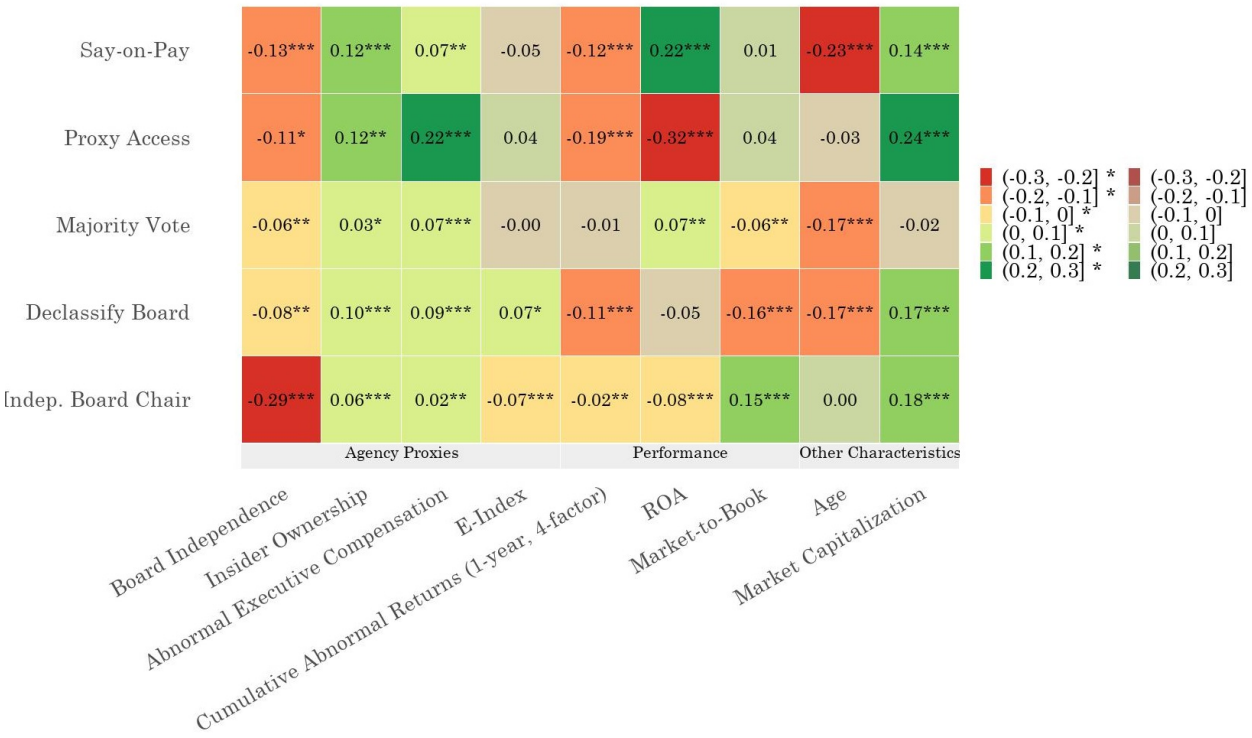
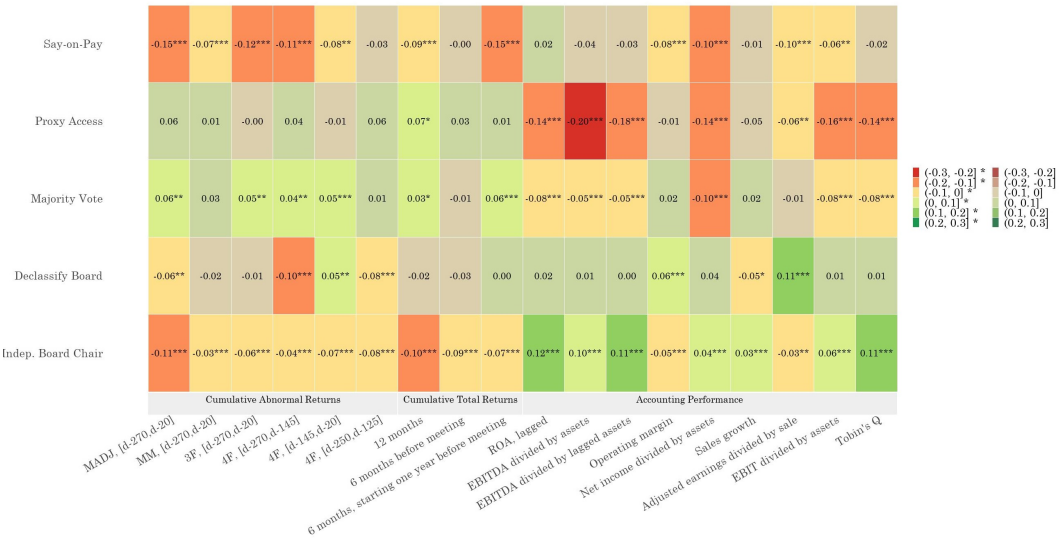


Figure D.2. Company Rankings vs. Characteristics: Results with Additional Controls. This figure presents the relationship between company rankings and their characteristics. For each topic displayed on the y-axis, the figure displays the coefficients from multivariate regressions that include all nine variables indicated at the bottom of the graph, as well as variables that are frequently used as controls in the empirical corporate finance literature: leverage, cash, capital expenditures, repurchases, and the Kaplan–Zingales (KZ) index measuring financial constraints. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. The colors show the magnitude of the coefficients and whether the coefficients are statistically significant, at least at the 10% level. For example, red is mapped to coefficients that fall within the range of $(-0.3, -0.2]$ and are statistically significant, at least at the 10% level. The second column of the legend shows the color coding of the coefficients that are not statistically significant.

Panel A. Univariate Regressions



Panel B. Multivariate Regressions

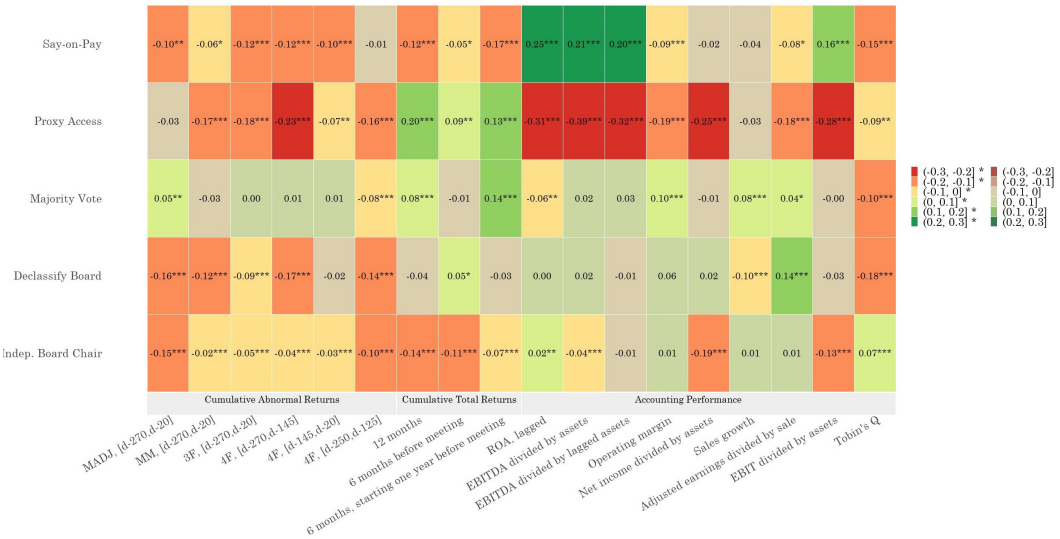


Figure D.3. Company Rankings vs. Characteristics: Alternative Performance Measures. This figure presents the relationship between company rankings and various alternative performance measures indicated at the bottom of the graph. The dependent variable is each firm's percentile rank. Panel A displays the results from univariate regressions. Panel B displays the results from multivariate regressions with the nine explanatory variables shown in Figure 4, replacing one relevant performance variable at a time. For example, the first column of this figure incorporates board independence, insider ownership, abnormal compensation, E-Index, market-adjusted returns (over the [270,−20] trading day window), ROA, market-to-book, age, and market capitalization and presents the coefficients on market-adjusted returns. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. The colors show the magnitude of the coefficients and whether the coefficients are statistically significant, at least at the 10% level. The second column of the legend shows the color coding of the coefficients that are not statistically significant at the 10% level.

Table D.1. Variable Definition

Variable Name	Description and Definition	Source
Abnormal executive compensation	Residual from regressing log of CEO's total annual compensation ($tdc1$) on the interaction of market capitalization and industry (3-digit SIC), and fiscal year dummy	Execucomp
Age	Year minus the year in which the firm was incorporated; log of firm age: $ln(1 + Firm\ age)$	Jay Ritter's website
Blockholders	Number of blockholders.	Thomson Reuters
Board independence	Percentage of board of directors classified as independent.	ISS
Capital expenditures	$capx/at$	Compustat
Cash	che/at	Compustat
Cumulative abnormal returns	Cumulative abnormal returns using either the market-adjusted, market, Fama French three-factor, and Fama French four-factor model, over various time horizons. The default uses the Fama French four-factor model over a one-year period (250 trading days).	CRSP
Deviation	The difference between vote support and a firm's rank derived from mutual fund votes, both represented in percentiles.	ISS
E-Index	Index ranging from 0 to 6 based on anti-takeover provisions identified by Bebchuk et al. (2008).	Lucian Bebchuk's website
Funds voting one-size-fits-all	Fraction of funds that always vote for or against for a given topic within a proxy season.	ISS
Institutional ownership	Percent of institutional ownership.	Thomson Reuters
Institutional ownership HHI	HHI of institutional ownership.	Thomson Reuters
KZ-Index	The Kaplan-Zingales Index measuring financial constraints. $-1.002 \times (oibdp/at) + 0.283 \times (at + csho \times prcc_f - ceq - txdb)/(0.9 \times at + 0.1 \times (at + csho \times prcc_f - ceq - txdb)) + 3.319 \times (dltt+dlc)/at - 39.368 \times (dvc+dvp)/at - 1.315 \times (che/at)$	Compustat
Market capitalization	Natural log of market value of common equity, in \$ million, $ln\ (prcc_f \times csho)$	Compustat
Market-to-book	$(at + csho \times prcc_f - ceq - txdb)/at$	Compustat
Insider ownership	Total percentage of shares owned by the CEO and directors ($shrown_tot_pct$)	Execucomp
Leverage	$(dltt + dlc)/at$	Compustat
Repurchases	$(prstkc - (pstkrv - lag_pstkrv))/at$	Compustat
Stock return	$((prcc_f_t + dvpsx_f_t)/ajex_t)/(prcc_f_{t-1}/ajex_{t-1}) - 1$	
ROA	$oibdp/at$	Compustat
Vote inflation	Dummy equal to one if the variable *Deviation* is greater than 20, indicating cases where the perceived benefits from vote support exceed those evaluated by mutual funds. Vote Deflation if *Deviation* is less than than -20.	ISS
Vote support	Total votes in favor/(Total votes in favor + Total votes against)	ISS

Table D.2. Precision of Estimated Ranks

This table presents the average of each firm's 95% central interval (CI), scaled by the number of firms receiving a given proposal in that proxy season. Specifically, for each firm j with a 95% CI range $[L_j, U_j]$ and N total firms in that topic–year, the scaled CI is $(U_j - L_j)/N$. We then take the mean across all firms in that topic–year. A smaller average scaled CI indicates more *precise* rank estimates. For example, in 2018, 48 companies received independent board chair proposals. Abbott Laboratories' 95% CI is [22,28], so its scaled CI is $(28 - 22)/48 = 0.125$. Averaging over all 48 firms yields 0.183 for 2018 independent chair proposals.

Topic	Proxy Season	Mean of 95% CI Range (Scaled)
Independent Board Chair	2016	0.112
Independent Board Chair	2008	0.117
Independent Board Chair	2017	0.120
Independent Board Chair	2007	0.129
Independent Board Chair	2011	0.135
Independent Board Chair	2014	0.136
Independent Board Chair	2020	0.137
Majority Vote	2007	0.138
Independent Board Chair	2010	0.141
Independent Board Chair	2015	0.142
Independent Board Chair	2009	0.143
Independent Board Chair	2019	0.154
Independent Board Chair	2006	0.163
Independent Board Chair	2013	0.167
Independent Board Chair	2012	0.168
Independent Board Chair	2018	0.183
Majority Vote	2012	0.195
Majority Vote	2006	0.197
Majority Vote	2010	0.213
Majority Vote	2009	0.241
Majority Vote	2011	0.246
Majority Vote	2014	0.251
Proxy Access	2016	0.255
Majority Vote	2013	0.262
Majority Vote	2008	0.287
Say-on-Pay	2007	0.287
Say-on-Pay	2009	0.306
Independent Board Chair	2005	0.306
Say-on-Pay	2008	0.312
Declassify Board	2013	0.320
Say-on-Pay	2010	0.322
Proxy Access	2017	0.330
Declassify Board	2012	0.340
Independent Board Chair	2004	0.366
Declassify Board	2009	0.386
Declassify Board	2007	0.392
Proxy Access	2015	0.399
Declassify Board	2011	0.436
Declassify Board	2004	0.465
Declassify Board	2008	0.476
Declassify Board	2010	0.487
Declassify Board	2006	0.491
Declassify Board	2005	0.573
Majority Vote	2005	0.637

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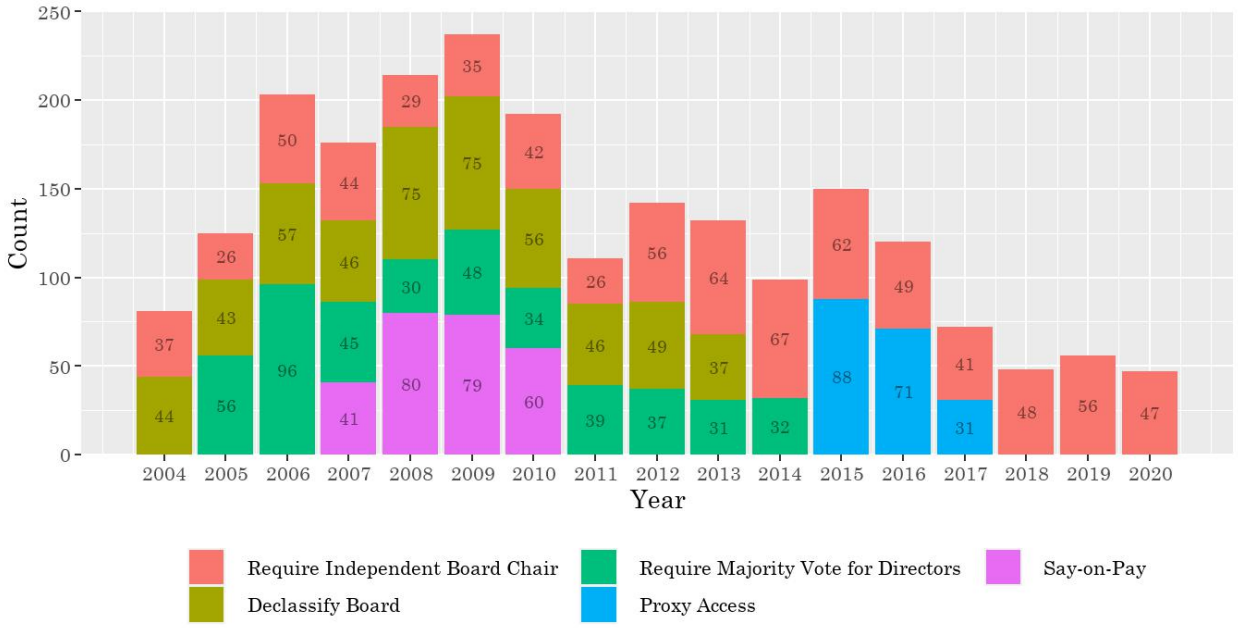
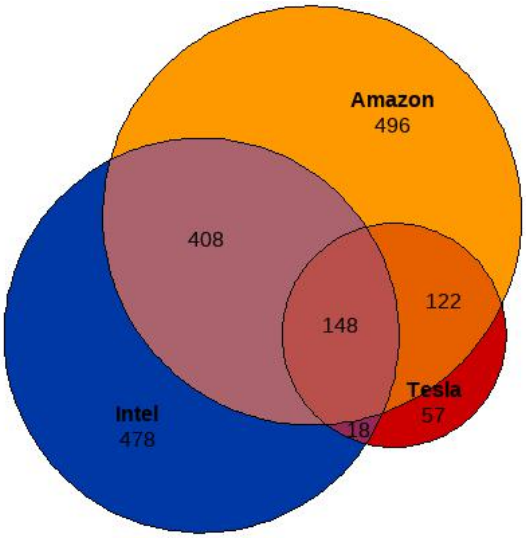


Figure 1. Number of Companies with Shareholder-Sponsored Proposals by Topic. This figure shows the number of companies with shareholder-sponsored governance proposals, by proposal topic and year. The information comes from the ISS Voting Analytics Mutual Fund Vote Records database. I require at least 25 proposals on the same topic and at least 50 funds that voted both for and against a given topic in a given proxy season.

Panel A. Number of Funds that Voted on Three Firms' Independent Board Chair Proposals in the 2018 Proxy Season



Panel B. Fund Votes on Three Firms' Independent Board Chair Proposals in the 2018 Proxy Season

	Against	For
Intel \ Tesla		
Against		
For		
Telsa \ Amazon		
Against		
For		
Intel \ Amazon		
Against		
For		

(*Continued*)

Panel C. 50 Funds' Votes on 20 Firms' Independent Board Chair Proposals in the 2018 Proxy Season



Figure 2. Mutual Fund Voting Patterns: An Illustration. Panel A presents a Venn diagram of the mutual funds that voted on Intel's, Amazon's, and Tesla's independent board chair proposals during the 2018 proxy season. Panel B shows the votes cast by these funds. Each black square represents one fund. For example, the top row shows that 54 funds voted against both Intel's and Tesla's proposals, and 42 funds voted against Intel's proposal and in favor of Tesla's proposal. Any votes other than For and Against are excluded from this figure. Panel C shows how 50 mutual funds voted on 20 firms' independent board chair proposals during the 2018 proxy season. Each column represents a company, and each row represents a fund's votes.

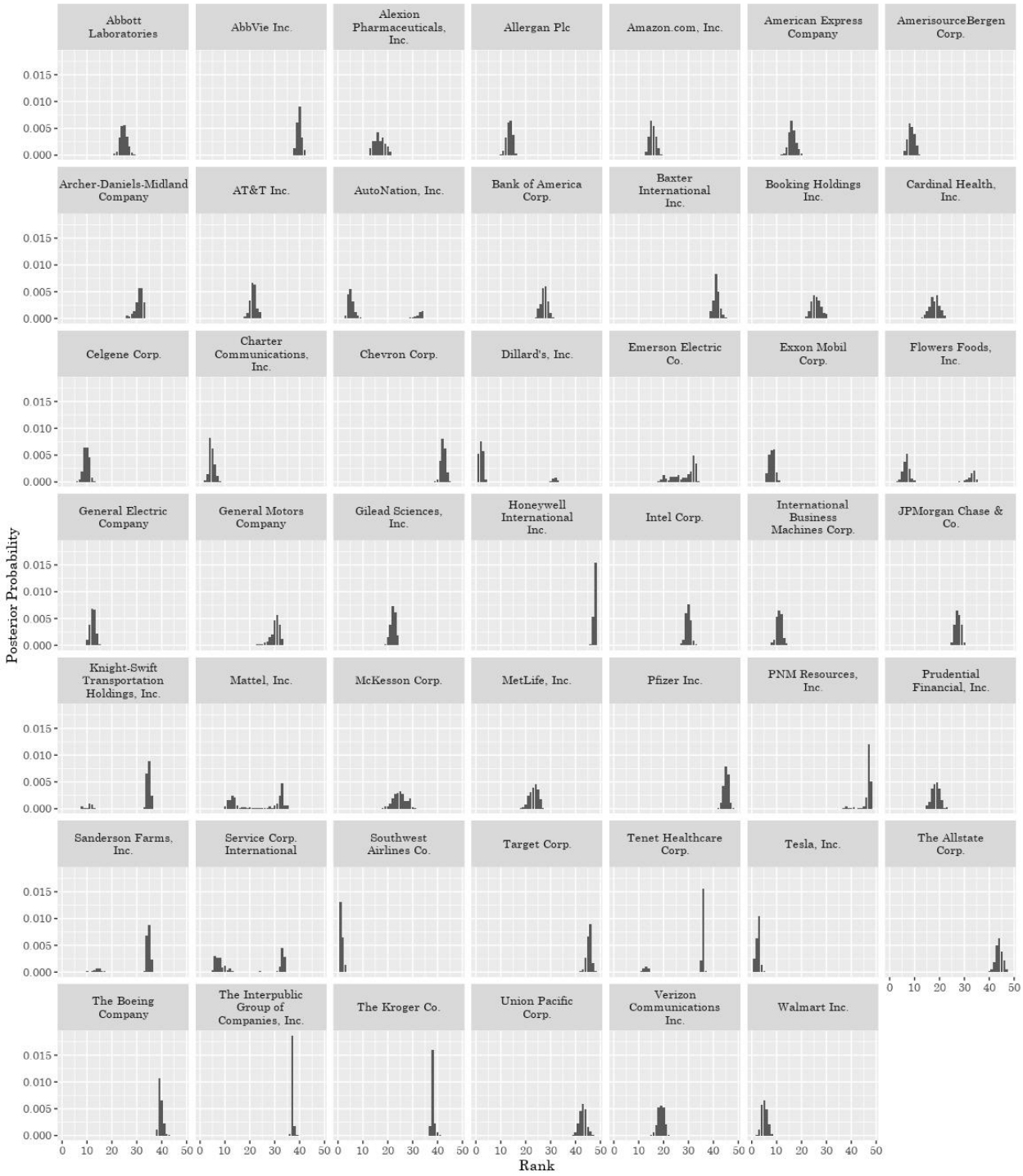
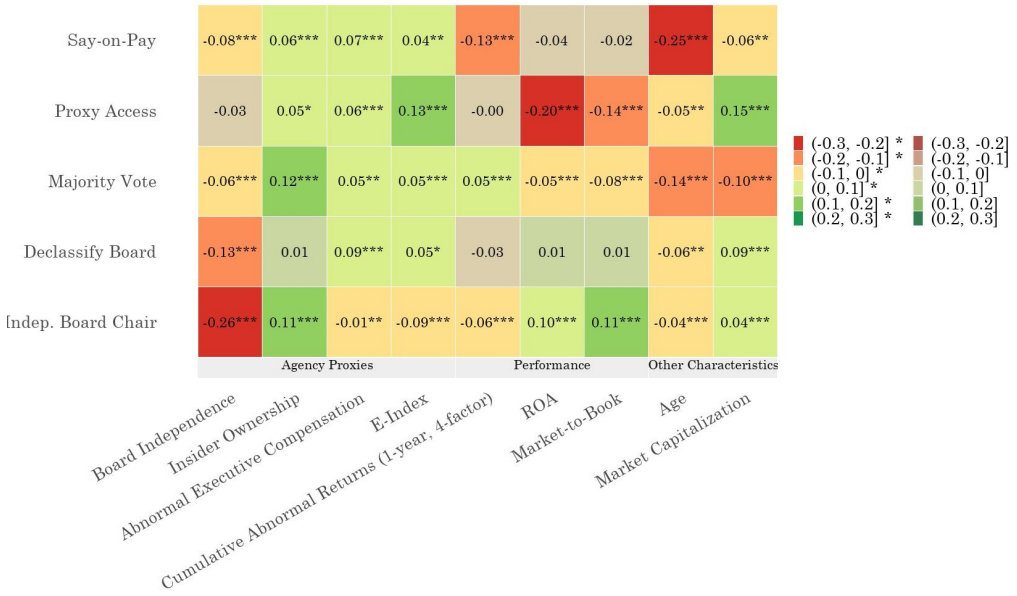


Figure 3. Posterior Distribution of Rank. This figure presents the posterior distribution of each firm's rank based on fund preferences for companies that received independent board chair proposals during the 2018 proxy season. A rank of 1 means that the governance topic under consideration is the most desirable for the given firm from the perspective of mutual funds.

Panel A. Univariate Regressions



Panel B. Multivariate Regressions

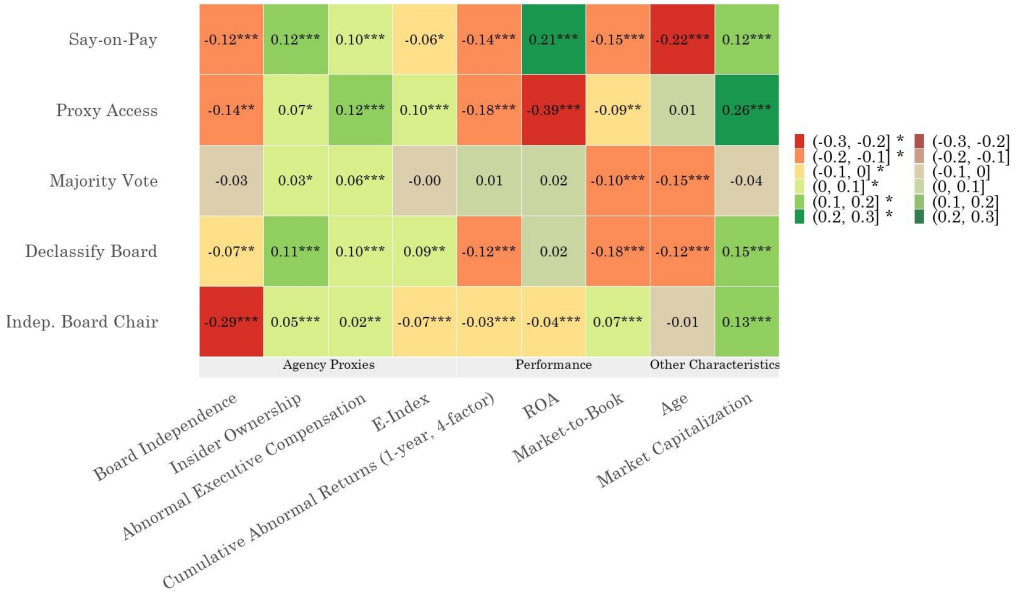
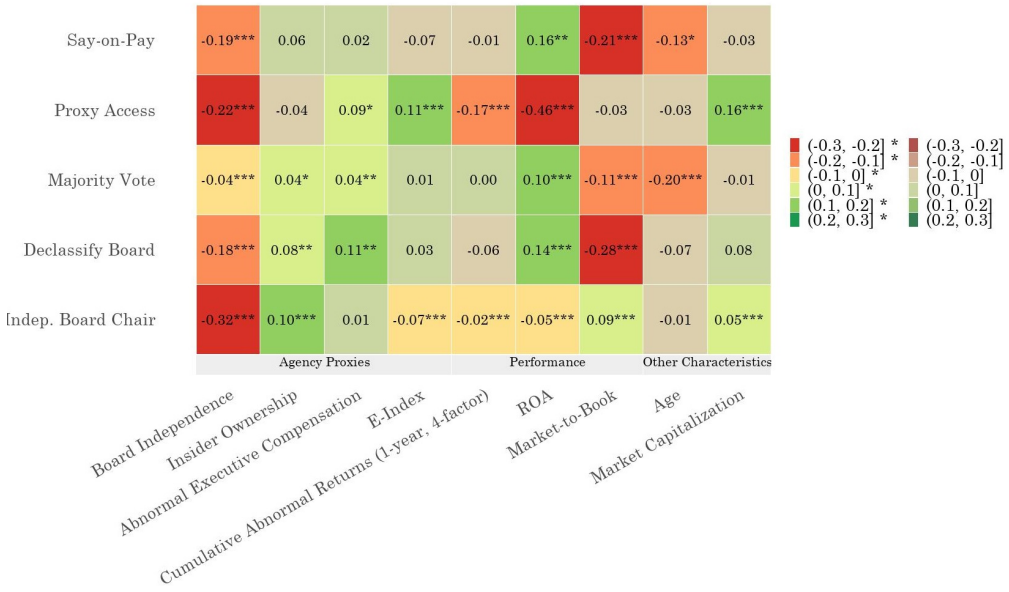


Figure 4. Company Rankings vs. Characteristics. This figure presents the relationship between company rankings and their characteristics, indicated at the bottom of the graph. For each topic displayed on the y-axis, Panel A displays the results from univariate regressions where the dependent variable is each firm's percentile rank, and the independent variable is firm characteristics. Panel B displays the results from multivariate regressions, with all nine variables indicated at the bottom of the graph. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. The colors show the magnitude of the coefficients and whether the coefficients are statistically significant, at least at the 10% level. For example, red is mapped to coefficients that fall within the range of $(-0.3, -0.2]$ and are statistically significant, at least at the 10% level. The second column of the legend shows the color coding of the coefficients that are not statistically significant.

Panel A. Passive Funds



Panel B. Active Funds

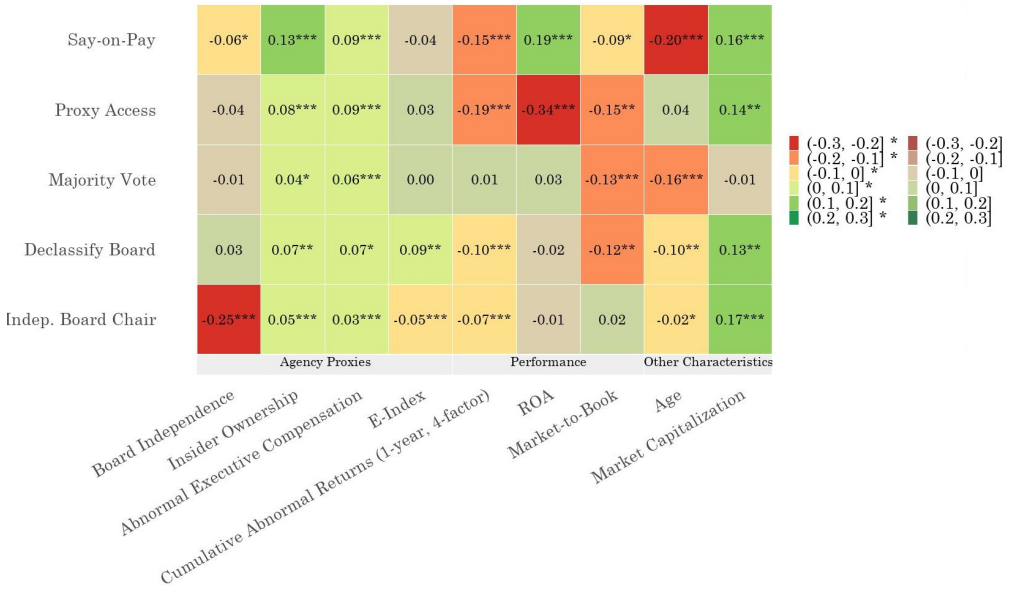
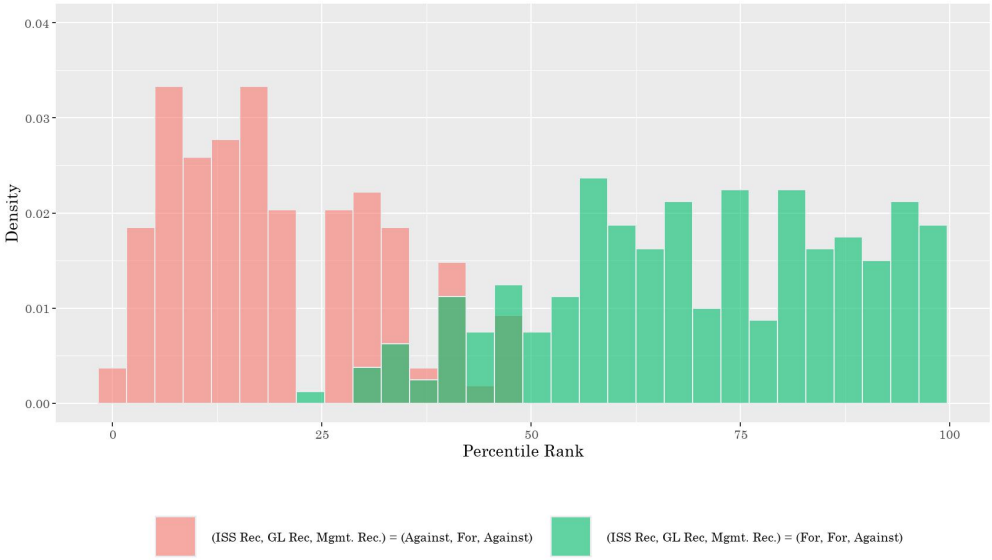


Figure 5. Passive vs. Active Funds. This figure presents the relationships between the rankings of active and passive funds and their characteristics, indicated at the bottom of the graph, based on multivariate regressions with all nine variables indicated at the bottom of the graph. Panel A presents the results for passive funds and Panel B presents the results for active funds. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. The colors show the magnitude of the coefficients and whether the coefficients are statistically significant, at least at the 10% level. For example, red is mapped to coefficients that fall within the range of $(-0.3, -0.2]$ and are statistically significant, at least at the 10% level. The second column of the legend shows the color coding of the coefficients that are not statistically significant.

Panel A. By ISS Recommendation



(*Continued*)

Panel B. Posterior Distribution of Rank: Subsample Based on Voting Recommendations

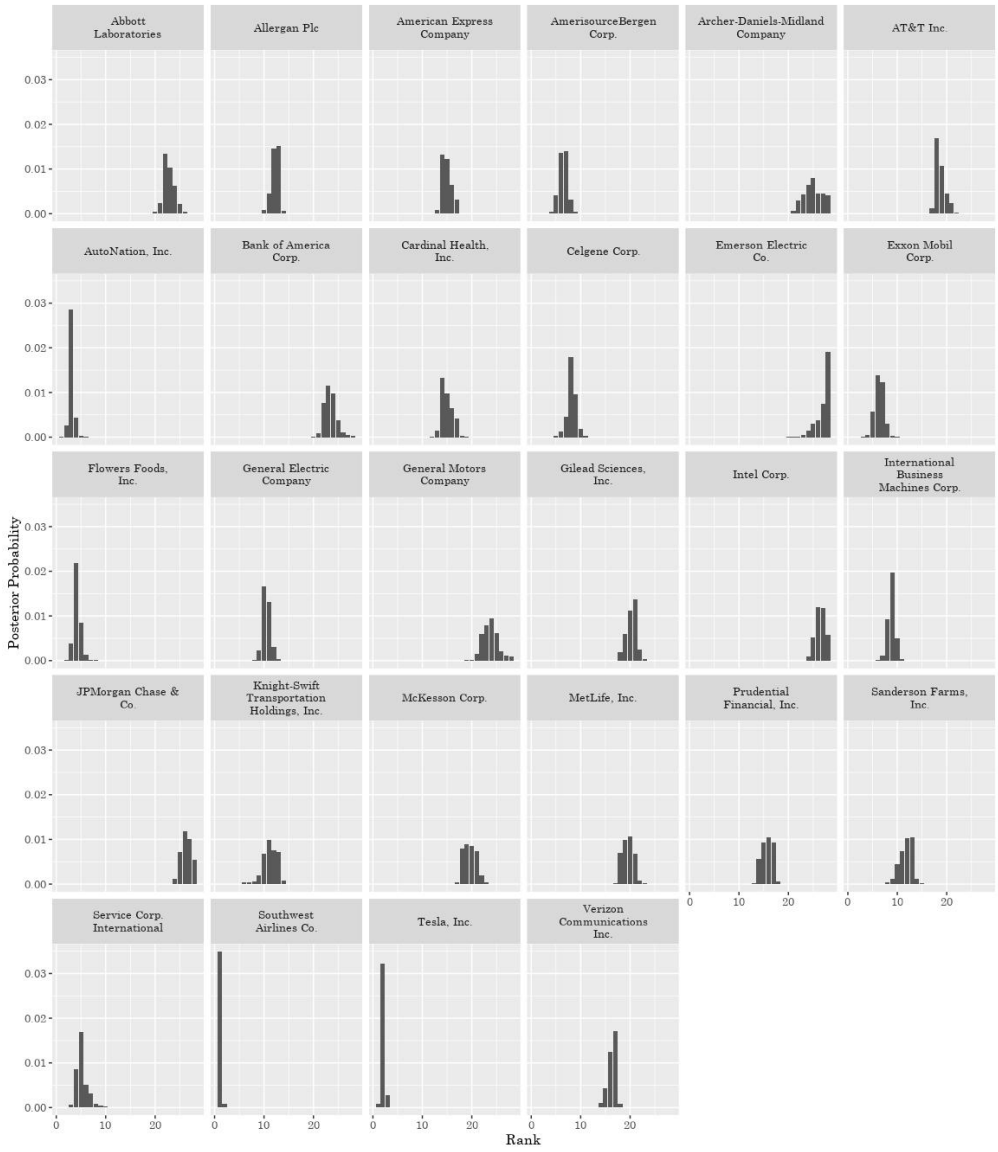


Figure 6. Proxy Advisors' Recommendations and Fund Preferences. Panel A presents the histogram of the percentile rank of fund governance preferences, separately for independent board chair proposals that received for vs. against ISS recommendations, limited to proposals for which management recommends voting against and Glass Lewis recommends voting in favor. A percentile rank of 100 means that the proposal under consideration is the most desirable for the given firm from the perspective of mutual funds. Panel B presents the posterior distribution of each firm's rank for companies that received independent board chair proposals during 2018 and that had the following voting recommendations: (ISS recommendation, Glass Lewis recommendation, Management recommendation) = (For, For, Against). A rank of 1 means that the governance topic under consideration is the most desirable for the given firm from the perspective of mutual funds. Note that there is an inverse relationship between rank and percentile rank: in the percentile ranking, a percentile rank of 100 means that the proposed governance topic is the most desirable.

Table 1. Summary Statistics

This table presents descriptive statistics for proposals (Panel A) and mutual fund voting behavior (Panels B–D). All cell values display a fraction of the overall count calculated from the available data. The unit of analysis is a proposal in Panel A, a vote in Panel B, and a fund-proxy season in Panels C and D. Panel C displays the fraction of fund-proxy seasons with votes in line with the recommendations of management, ISS, or Glass Lewis more than 99% of the time. Column (1) reports the results for funds that voted on at least 50 shareholder proposals in a proxy season, and Column (2) reports the same figure for funds that voted on more than 50 proposals on the five proposal topics studied in this paper. Panel D displays the fraction of fund-proxy seasons with identical votes across all portfolio companies for funds that voted on at least 10 proposals on a given topic within a proxy season.

Panel A. Proposal Outcomes and Recommendations: By Proposal Topic

	Require Independent Board Chair (N=763) (1)	Declassify Board (N=477) (2)	Require Majority Vote for Directors (N=430) (3)	Proxy Access (N=190) (4)	Say-on-Pay (N=254) (5)
			%		
Mean % of votes in favor	30	70	54	54	43
% proposal passes	4	75	47	57	15
% mgmt. recommends voting in favor	0	3	2	4	0
% ISS recommends voting in favor	65	99	99	96	99
% GL recommends voting in favor	94	99	100	88	96

Panel B. Funds' Voting Patterns: By Proposal Topic

	Require Independent Board Chair (1)	Declassify Board (2)	Require Majority Vote for Directors (3)	Proxy Access (4)	Say-on-Pay (5)
			%		
B.1. All funds					
Votes in favor	37	91	68	72	58
Votes in line with management	63	12	33	31	42
Votes in line with ISS	62	91	69	76	58
Votes in line with Glass Lewis	39	93	71	75	58
B.2. Active funds					
Votes in favor	40	91	70	71	60
Votes in line with management	60	12	31	32	40
Votes in line with ISS	63	91	71	75	60
Votes in line with Glass Lewis	41	93	75	74	59
B.3. Passive funds					
Votes in favor	31	91	64	74	53
Votes in line with management	69	11	37	28	47
Votes in line with ISS	59	91	65	77	53
Votes in line with Glass Lewis	33	92	64	78	53

Table 1. Summary Statistics (*—Continued*)

Panel C. Fund Votes Mostly in Line with Management, ISS, or Glass Lewis Recommendations

	All Shareholder Proposals (1)	Select Topics (2)
	%	
C.1. All funds		
Management	1.2	2.1
ISS	8.2	20.6
Glass Lewis	0.0	24.5
C.2. Active funds		
Management	1.2	2.3
ISS	8.5	25.2
Glass Lewis	0.0	25.9
C.3. Passive funds		
Management	1.2	2.0
ISS	7.4	15.8
Glass Lewis	0.0	23.0

Panel D. Funds' "One-size-fits-all" Voting Behavior

	Require Independent Board Chair (1)	Declassify Board (2)	Require Majority Vote for Directors (3)	Proxy Access (4)	Say-on-Pay (5)
	%				
D.1. All funds					
Always votes against	26	2	13	11	25
Always votes in favor	8	70	37	25	38
D.2. Active funds					
Always votes against	27	2	14	13	23
Always votes in favor	9	75	37	25	39
D.3. Passive funds					
Always votes against	23	2	10	7	35
Always votes in favor	7	66	38	26	32

Table 2. Mutual Funds' Governance Preference Ranking of Firms

Panel A presents each firm's estimated rank based on fund votes on shareholder proposals for companies that received independent board chair proposals during the 2018 proxy season. In all columns, a lower number corresponds to a higher preference (i.e., priority), and a larger value corresponds to a lower preference. Panel B presents information on the level of agreement on the rankings presented in Panel A. For both panels, the 95% HPDI (highest posterior density interval) and 95% CI (central interval) are shown in the last two columns.

Panel A. Rankings

Firm	Mean	Median	HPDI (Highest Posterior Density Interval)	CI (Central Interval)
Abbott Laboratories	25	25	[22,27]	[22,28]
AbbVie Inc.	40	40	[38,41]	[38,42]
Alexion Pharmaceuticals, Inc.	17	16	[13,20]	[13,21]
Allergan Plc	13	14	[11,15]	[11,15]
Amazon.com, Inc.	16	15	[14,18]	[13,18]
American Express Company	16	16	[14,19]	[14,19]
AmerisourceBergen Corp.	9	9	[7,11]	[6,11]
Archer-Daniels-Midland Company	31	31	[28,33]	[26,33]
AT&T Inc.	21	21	[19,24]	[19,24]
AutoNation, Inc.	11	5	[3,9],[29,34]	[3,34]
Bank of America Corp.	27	27	[25,30]	[25,30]
Baxter International Inc.	41	41	[39,43]	[39,44]
Booking Holdings Inc.	26	26	[23,30]	[23,30]
Cardinal Health, Inc.	18	18	[14,21]	[14,22]
Celgene Corp.	10	10	[8,12]	[7,12]
Charter Communications, Inc.	5	5	[3,7]	[3,7]
Chevron Corp.	42	42	[41,44]	[40,44]
Dillard's, Inc.	5	2	[1,3],[31,32]	[1,32]
Emerson Electric Co.	29	31	[20,21],[23,33]	[19,33]
Exxon Mobil Corp.	8	8	[6,10]	[6,10]
Flowers Foods, Inc.	14	7	[4,9],[31,35]	[5,34]
General Electric Company	12	12	[10,14]	[10,14]
General Motors Company	30	31	[26,33]	[25,33]
Gilead Sciences, Inc.	22	22	[20,24]	[20,24]
Honeywell International Inc.	48	48	[47,48]	[47,48]
Intel Corp.	30	30	[28,32]	[28,32]
International Business Machines Corp.	11	11	[9,13]	[9,13]
JPMorgan Chase & Co.	27	27	[26,29]	[26,29]
Knight-Swift Transportation Holdings, Inc.	32	35	[8],[11,12],[34,36]	[9,36]
Mattel, Inc.	23	26	[10,15],[17,18],[20],[28,35]	[11,35]
McKesson Corp.	25	25	[19],[21,29]	[19,29]
MetLife, Inc.	23	23	[20,26]	[20,26]
Pfizer Inc.	45	45	[43,47]	[43,47]
PNM Resources, Inc.	47	47	[38],[45,48]	[39,48]
Prudential Financial, Inc.	19	19	[16,21]	[15,21]
Sanderson Farms, Inc.	32	35	[13,15],[33,36]	[13,36]
Service Corp. International	18	10	[5,12],[32,34]	[6,34]
Southwest Airlines Co.	1	1	[1,3]	[1,3]
Target Corp.	45	46	[44,47]	[43,47]
Tenet Healthcare Corp.	33	36	[12,14],[35,36]	[12,36]
Tesla, Inc.	3	3	[1,4]	[1,4]
The Allstate Corp.	44	44	[42,47]	[41,47]
The Boeing Company	40	39	[38,41]	[38,41]
The Interpublic Group of Companies, Inc.	37	37	[37,38]	[37,38]
The Kroger Co.	38	38	[37,39]	[37,40]
Union Pacific Corp.	43	43	[41,46]	[40,46]
Verizon Communications Inc.	19	19	[17,21]	[16,21]
Walmart Inc.	5	5	[3,7]	[3,7]

Table 3. Firm Rankings vs. Vote Support

Panel A presents Spearman's correlation coefficients between each company's rank and vote support for each topic, both in percentile rank. Vote support is calculated as (# votes in favor)/(# votes in favor + # votes against). The topics are indicated at the top of each panel. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. Panel B examines whether the deviation between each company's rank and vote support can be explained by the company's ownership characteristics. In Column (1), *Deviation* is the difference between vote support and a firm's rank derived from mutual fund votes, both represented in percentiles. For example, if a firm's vote support reaches the 95th percentile but ranks at the 70th percentile through mutual fund votes, then the deviation is 25. This reflects a case where the perceived benefits from vote support exceed those evaluated by mutual funds. In Columns (2)–(7), I indicate whether a vote is inflated or deflated, defining a proposal with a deviation greater than 20 as inflated, and less than −20 as deflated.

Panel A. Spearman's correlation between vote support and firm rankings

Require Independent Board Chair	Declassify Board	Require Majority Vote for Directors	Proxy Access	Say-on-Pay
(1)	(2)	(3)	(4)	(5)
0.51***	0.27***	0.58***	0.49***	0.15**
(N=746)	(N=452)	(N=421)	(N=185)	(N=252)

Panel B.Deviation between vote support and firm ranking percentiles

Dependent variable:	Deviation	Vote Inflation			Vote Deflation		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Insider Ownership	−0.12***	−0.11***	−0.06**	−0.01***	0.10***	0.09***	0.01***
	(0.02)	(0.03)	(0.02)	(0.00)	(0.03)	(0.03)	(0.00)
Institutional Ownership	0.23***	0.18***	0.16***	0.01***	−0.26***	−0.20***	−0.02***
	(0.04)	(0.05)	(0.04)	(0.00)	(0.05)	(0.04)	(0.00)
Institutional Ownership HHI	−0.24***	−0.17***	−0.10**	−0.01***	0.25***	0.22***	0.02***
	(0.03)	(0.05)	(0.04)	(0.00)	(0.05)	(0.04)	(0.00)
Blockholders	0.02	0.01	0.01	0.00	−0.01	−0.04	0.00
	(0.04)	(0.05)	(0.04)	(0.00)	(0.05)	(0.04)	(0.00)
Market Capitalization	−0.11***	−0.17***	−0.12***	−0.01***	0.01	0.02	0.00
	(0.03)	(0.04)	(0.04)	(0.00)	(0.04)	(0.04)	(0.00)
Funds Voting	4.05	16.03***	16.92***	1.02***	9.09*	10.69**	0.53*
One-Size-Fits-All	(3.62)	(4.88)	(3.94)	(0.31)	(4.93)	(4.28)	(0.31)
Observations	1,591	1,591	1,591	1,591	1,591	1,591	1,591
R-squared	0.10	0.05	0.05		0.06	0.06	
Specification	OLS	OLS	OLS	Logit	OLS	OLS	Logit
Threshold	·	20	30	20	20	30	20

Table 4. Classification and Examples of Voting Rationales on Shareholder Proposals

This table presents categories used to classify voting rationales on shareholder proposals, accompanied by a brief description and examples of the rationales under each category.

Category	Rationales refer to...	Example: Votes For	Example: Votes Against
Governance	Governance or compensation concerns, unresponsiveness to concerns as reasons for support; good governance or lack of governance concerns, existing policy in place to address issues, or already implemented the proposal as reasons for opposition	A vote FOR this proposal is warranted given that the lead directors' duties are not considered robust and there is a concern regarding the lack of a fully independent key board committee, suggesting that shareholders would benefit from the most robust form of independent oversight in the form of an independent board chair.	1) Company has a designated lead director who fulfills the requirements appropriate to such role; 2) Management has been very shareholder focused and exercises good governance practices. Will support current management at this time.
General support/opposition	Investor generally believes in the proposed initiatives, sometimes unaccompanied by further reasoning.	1) We believe that the chairman and CEO roles should be separated; 2) A vote for this proposal is warranted given the importance of having an independent chairman of the board; 3) We supported this resolution.	Janus will generally vote with management on proposals to declassify the board.
Performance	Good, acceptable, poor performance	A vote for this proposal is warranted. The company's TSR has underperformed its peers over the past one- and three-year periods, and...	A vote against this proposal is warranted as there are no significant concerns with respect to the company's board leadership structure, governance practices, or performance at this time.
Company characteristics	Company-specific characteristics or situation	..., given the company's scale, complexity, and legacy legal and regulatory issues, shareholders would benefit from greater oversight in the form of an independent chairman.	NA
Follow policy	Follow institutional policy, or recommendations of proxy advisors or management	1) A FOR vote is warranted per policy guidelines; 2) Per client instruction.	This item does not merit support per policy guidelines.
Proposal term/scope	Terms or scope of the proposal	A vote for this item is warranted, as adoption of proxy access will enhance shareholder rights and this proposal includes appropriate safeguards.	This item does not merit support due to concerns with the terms of the proposal.
Engagement	Decision made after engagement, usually with the company	... Upon engagement, decided to support shareholder proposal.	Upon engagement decided to vote with management
Others	Idiosyncratic rationales excluded from above.	NA	While we support the idea of an independent chairman, we believe the board should make that decision.
Data error	Rationales that do not offer insights behind votes, or rationales for votes against, accompanied by votes in favor, and vice versa.	Separate CEO and chair with an independent lead director in place; governance process is robust.	Blended rationale: .

Table 5. Voting Rationales on Shareholder Proposals

The table presents the frequency of rationale categories for votes in favor (Panel A) and votes against (Panel B). Column (1) reports the relative importance of each category. Column (2) is similar to Column (1) but focuses on cases where a fund provides rationales for Against and For votes on a given topic within a proxy season. Column (3) reports the proportion of fund-proxy season-topic combinations that reference the category, focusing on funds that provide rationales for both votes For and Against. Note that the percentages in Column (3) do not sum up to 100 because funds may provide more than one rationale.

Panel A. Votes in favor

Category	(1) (N=24,361)	(2) (N=6,512)	(3) (N=1,229)
General support/opposition	74.5	70.5	76.2
Governance	9.7	12.5	31.2
Others	3.9	8.0	15.2
Performance	3.7	4.4	8.8
Proposal term/scope	5.6	2.7	5.0
Data error	0.5	0.7	3.4
Engagement	0.2	0.6	3.4
Company characteristics	0.9	0.4	1.5
Follow policy	0.9	0.3	1.5
Total	100	100	·

Panel B. Votes against

Category	(1) (N=11,642)	(2) (N=8,106)	(3) (N=1,229)
Governance	80.6	80.1	66.4
General support/opposition	5.8	6.1	31.2
Others	3.3	3.5	16.8
Engagement	3.6	3.4	16.2
Data error	2.8	2.7	11.7
Performance	1.4	1.9	4.4
Proposal term/scope	1.9	1.8	10.3
Follow policy	0.6	0.5	2.4
Company characteristics	0.0	0.0	0.0
Total	100	100	·

Table 6. Correlation Between Active and Passive Fund Rankings

This table presents Spearman's correlation coefficients between active and passive funds' rankings. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Require Independent Board Chair (1)	Declassify Board (2)	Require Majority Vote for Directors (3)	Proxy Access (4)	Say-on-Pay (5)
0.82^{***} (N=710)	0.51^{***} (N=263)	0.82^{***} (N=384)	0.67^{***} (N=189)	0.48^{***} (N=257)

Table 7. Business Ties

Panel A shows whether funds with business ties to a company are more likely to vote with management. The dependent variable is equal to one if the fund votes with management and the independent variable, business ties, is equal to one if the fund's financial institution has a business tie to the company receiving the proposal. The coefficients are scaled by 100 to represent the percentage. In Panel B, the asterisk indicates whether the mean change is statistically different from zero. ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Business Ties and Fund Votes

Dependent variable:	Vote with Management			
	(1)	(2)	(3)	(4)
Business Ties	3.096***	0.899***	0.858***	3.214***
	(0.239)	(0.232)	(0.220)	(0.707)
Fund × Topic F.E.	Yes	Yes	Yes	Yes
Topic × Year F.E.	·	Yes	·	·
Company F.E.	·	Yes	Yes	·
Proposal F.E.	·	·	Yes	Yes
Fund × Company F.E.	·	·	·	Yes
R^2	0.567	0.629	0.680	0.801
N	962,344	962,338	962,334	589,470

Panel B. Business Ties and Affiliated Firm's Percentile Rank

	Companies with Business Ties			Companies without Business ties		
	Before Exclusion (1)	After Exclusion (2)	Change (3)	Before Exclusion (4)	After Exclusion (5)	Change (6)
Panel B.1. All Provisions						
Mean	50.94	51.07	0.12	51.39	51.35	-0.04
Median	51	50	0	52	52	0
S.D.	28.97	28.81	5.85	28.85	28.85	4.15
N	647	647	647	1,522	1,522	1,522
Panel B.2. By Each Provision						
Require Independent Board Chair						
Mean	49.90	49.97	0.07	52.08	52.18	0.10
Median	49	49	0	53	53	0
S.D.	29.89	29.86	4.11	28.02	28.04	3.15
N	315	315	315	459	459	459
Declassify Board						
Mean	54.91	54.44	-0.47	50.80	50.83	0.03
Median	57	55	0	51	51	0
S.D.	26.43	26.39	6.72	29.44	29.37	5.31
N	85	85	85	417	417	417
Require Majority Vote for Directors						
Mean	46.42	47.20	0.79	52.99	52.66	-0.33**
Median	39	42	0	55	55	0
S.D.	28.48	28.06	4.95	28.94	29.00	2.96
N	103	103	103	343	343	343
Proxy Access						
Mean	57.08	57.53	0.45	47.93	47.66	-0.27
Median	62	64	0	46	46	0
S.D.	29.32	29.42	5.01	28.37	28.30	6.93
N	62	62	62	128	128	128
Say-on-Pay						
Mean	51.90	51.78	-0.12	50.38	50.50	0.12
Median	51	50	0	53	51	0
S.D.	27.56	27.03	10.48	29.73	29.83	2.13
N	82	82	82	175	175	175