

Investor Ideology¹

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Abstract: This paper estimates a spatial model of proxy voting, the W-NOMINATE method for scaling legislatures, and maps institutional investors onto a left-right dimension based on their votes for fiscal year 2012. The far-left are socially responsible and the far-right are “money-conscious” investors. Significant ideological differences reflect an absence of shareholder unanimity. The proxy adviser ISS, similar to a political leader makes voting recommendations that place it center-left; to the left of most mutual funds. Public pension funds and other investors on the left support a more social and environment-friendly orientation of the firm and fewer executive compensation proposals.

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1. Introduction

We conduct an empirical analysis of proxy ballot voting by several hundred institutional investors and public pension funds that exercise voting rights in publicly listed Russell 3000 firms. We follow a “political” approach pioneered by Poole and Rosenthal (1985), which seeks to estimate voters’ ideal points based on their proxy voting records, along one, or possibly two, most salient policy dimensions. We can thus allow for a broad “ideological” interpretation of the diverse ideal points of the multiple institutional asset managers and owners that goes beyond pure shareholder value considerations.

Kenneth J. Arrow explains that he was led to formulate his celebrated Impossibility Theorem by his attempts to generalize the theory of the firm to include multiple owners: “To be sure, it could be assumed that all were seeking to maximize profits; but suppose they had different expectations of the future? They would then have different preferences over investment projects. I first supposed that they would decide, as the legal framework would imply, by majority voting...It was immediately clear that majority voting did not necessarily lead to an ordering.” He further recounts: “Sometime in the winter of 1947-48 my mind again turned involuntarily to voting. This time I happened to start with a political context and thought of parties arrayed in a natural left-right ordering.” [pages 2-3, *Collected Papers of Kenneth J. Arrow*, Volume 1, 1984]

In this paper, we reverse the path that led Arrow from the theory of the firm to political science and ask what light political science could shed on institutional shareholder voting. Could institutional investor ideology be uncovered from institutional shareholder votes just like congressmen’s ideology has been uncovered from their roll calls (Poole and Rosenthal, 2007)? More tantalizingly, are institutional investors arrayed along a left-right ideological dimension? And if so, what substantive differences about corporate policy are represented by this dimension?

As Duncan Black (1948) established, majority voting does result in a well-defined social ordering if voters have single-peaked preferences arrayed along a single left-right dimension. Thus, if it turns out that institutional investors’ ideological differences can be projected onto

one dimension then Arrow's difficulty with majority voting by shareholders would be conveniently resolved.

Another convenient resolution of the majority voting problem is to observe that in a competitive economy with complete markets there is unanimity among shareholders on the objectives of the firm (Grossman and Stiglitz, 1976, and Grossman and Hart, 1979). A related argument is that only shareholder value maximization is compatible with the no-arbitrage equilibrium condition in financial markets. Any deviation from value maximization would expose the firm to a takeover.

However, even if a capital gain could be generated by taking over a non-value-maximizing firm and changing its policies, it is far from obvious that a takeover would succeed under such circumstances (Grossman and Hart, 1980).

When a takeover is not an immediate threat, and the firm has a choice to pursue non-value maximizing policies, Friedman (1970) argued that shareholders would still prefer value maximization because negative externalities are best addressed through public policy. By implication, socially-minded shareholders may well prefer a non-value-maximizing policy that causes less negative externalities, if they estimate that the negative externalities are difficult to undo, and if the government cannot be relied on to internalize all socially harmful activities (Hart and Zingales, 2016). In sum, when business operations cannot be entirely separated from their social and environmental effects, when economic forces do not completely shape a firm's policies, there is inevitably a political facet to the exercise of corporate control. But how does this political aspect manifest itself in practice?

A key institutional consideration absent from the literature on the objectives of firms is the fact that most shares of publicly traded corporations are managed by institutional investors. In practice the determining votes are cast by asset managers, not by retail investors. Hence, the politics of corporate voting is manifest in the way in which institutional investors exercise their voting rights. This paper is a first exploratory attempt to uncover institutional investor ideology.

In its (2017) *Annual Investment Stewardship Report*, Vanguard writes “This year, for the first time, our funds supported a number of climate-related shareholder resolutions opposed by company management.” The report further states that Vanguard supports effective corporate governance practices that include advocacy, engagement and “voting proxies at company shareholder meetings across each of our portfolios and around the globe. Because of our ongoing advocacy and engagement efforts, companies should be aware of our governance principles and positions by the time we cast our funds’ votes.” Our estimation of investor ideal points allows us to identify Vanguard’s ideology; where it stands relative to other investors. This may help guide companies’ policies and coordinate shareholder governance actions.

Our approach closely tracks the ideal point estimation methodology pioneered by Poole and Rosenthal (1985, 2007) and by McCarty, Poole, and Rosenthal (1997) for legislative voting. They apply alternating estimation methods to a voting model where voters have random utility (McFadden, 1976) with a spatial single-peaked representation of preferences. Their method is commonly referred to as NOMINATE; it has been widely applied to study legislative voting and other binary choice problems (see Poole, 2005, and Armstrong et al., 2014, pages 189-221).

Institutional investor voting data also represents binary choices where investors vote “For” or “Against.” (Institutional abstention is rare.) These choices can therefore be analyzed using NOMINATE scaling. We frame our analysis by treating each fund family as a single investor with an ideal point in a latent strategy space.

What do the institutional shareholder votes reveal about how political objectives are expressed and aggregated at the firm level? Just as legislators’ ideological differences can be represented along a left-right spectrum, it turns out that institutional investors’ ideal points can also be mapped onto a line where the far-left investors are best described as socially responsible investors, those that vote most consistently in favor of pro-social and pro-environment shareholder proposals, and the far-right investors’ votes can be described as “money-conscious” investors, those who oppose again and again any proposal that could financially

cost shareholders. This is a somewhat simplified description. We provide more nuance to the social versus money-conscious distinction in our analysis.

It is important to emphasize that the NOMINATE scaling method is agnostic as to where ideology comes from and what it represents. The one-dimensional representation of differences in investor ideology is a statistical representation, which best explains the voting behavior of investors. That being said, it would not be entirely surprising that the same ideological differences that are observed in Congress could also be reflected in shareholder votes.

Still, an important finding is that there actually are significant ideological differences across institutional investors. The votes are not unanimous. There is no shareholder unanimity. Institutional investors differ systematically in their ideology. This is all the more remarkable that unlike in the political realm institutional investors are not organized in sustained political coalitions that impose some form of voting discipline.

The closest to something resembling party organization in financial markets are the proxy advisers, Institutional Shareholder Services (ISS) and Glass, Lewis & Co. (Glass Lewis). The management of firms also makes recommendations about their proxy proposals. They always recommend supporting their own proposals but may recommend voting against shareholder proposals. If we treat ISS and Glass Lewis' voting recommendations as votes we find that the ideology of ISS is center-left, to the left of most institutional investors but to the right of most public pension funds. Glass Lewis, Vanguard, Blackrock, are center-right. Whether these ideological differences are a reflection of the differences in ideology of their client bases we cannot say. It is not even clear that clients are aware that the funds they invest in have systematic ideological biases. Another open question is whether ideological differences are reflected in different portfolio holdings.

Related Literature: The first study of mutual fund proxy voting is by Gillan and Starks (2000). They find that proposals sponsored by institutions gain significantly more support than those sponsored by individuals. The subsequent literature takes the perspective that shareholders

seek to maximize shareholder value and that their voting is motivated by managerial agency problems. Deviations from shareholder value maximization are explained by conflicts of interest at some institutional investors and by the lack of coordination among institutional investors.

The proxy voting literature was significantly advanced by the change in mutual fund disclosure requirements of proxy votes introduced by the SEC in 2003. One of the first studies to rely on these data is by Davis and Kim (2007); they find that mutual fund family voting in support of management is more likely when the fund family is also a manager of the company's corporate pension plan. (Ashraf, Jayaraman, and Ryan, 2012, and Cvijanovic, Dasgupta, and Zachariadis, 2016, find additional support for this hypothesis). In a related study, Rothberg and Lilien (2006) also find that the largest funds are more likely to vote in support of management, except when proposals on executive compensation or takeover defenses are under consideration (see also Taub, 2009). Other explanations that have been proposed for the management-friendly voting behavior of mutual funds are governance failures at mutual funds (Chou, Ng and Wang, 2011), and that, although mutual funds tend to vote with management, their support is greater for proposals that increase shareholder wealth (Morgan, Poulsen, Wolf, and Yang, 2011). Cremers and Romano (2011) also find that the SEC rule change if anything has increased mutual fund support for management (see Ferri, 2012 for a review of this early literature).

More recently, the literature has explored other issues, in particular: i) whether mutual fund voting is driven by proxy advisers' recommendations, and if so why (Bethel and Gillan, 2002; Cai, Garner, and Walkling, 2009; Ertimur, Ferri, and Oesch, 2013; Larcker, McCall, and Ormazabal, 2014; Iliev and Lowry, 2015; Malenko and Shen, 2016; and Li, 2018); ii) whether social networks—a common educational background between mutual fund managers and portfolio firms' CEOs—can explain mutual fund voting behavior (Butler and Gurun, 2012); iii) whether index-investors are active in corporate governance (Appel, Gormley, and Keim, 2016); iv) whether cross-holdings in firms in the same industry affect the management-friendly stance of mutual funds (He, Huang, and Zhao, 2017), and; v) whether mutual funds vote in support of activist investor actions (He and Li, 2017; Brav, Jiang, and Li, 2017; Kedia, Starks,

and Wang, 2017; and Jiang, Li and Mei, 2018). In a survey of mutual fund managers, McCahery, Sautner, and Starks (2016) find that voting against management is an important channel through which institutional investors exert their influence. They also find that proxy advisors' recommendations are important to guide their voting. However, Listokin (2008) observes that management can strategically time their proposals and avoid putting up a proposal for a vote if it expects that the proposal could be defeated. This is evidenced by the disproportionately high proportion of close votes that goes in favor of management. All these studies share the common perspective that institutional investor voting is mostly concerned with corporate governance issues and does not reflect a broader ideological premise.

The most closely related paper to ours, written simultaneously and independently of our study, is by Bubb and Catan (2018). They also take a political approach to proxy voting. The main methodological difference is that they undertake a principal components analysis following Heckman and Snyder (1997), where we use W-Nominate (McCarty, Poole, and Rosenthal, 1997), a later version of NOMINATE (Poole and Rosenthal, 1985), the standard scaling method in political science. Also, they treat mutual funds as the unit of analysis, whereas we take the fund family as the relevant unit. This is more reasonable because the overwhelming fraction of fund families coordinate the votes across their funds (Morningstar, 2017). Using funds as the unit of analysis would clearly violate the i.i.d. assumption on errors in both Heckman-Snyder and NOMINATE. As we do, Bubb and Catan rely on data on mutual fund voting from ISS, but over a longer time interval (from fiscal years 2009-10 through 2014-15, while we only consider data from fiscal year 2011-12). Bubb and Catan emphasize the political party role of proxy advisers ISS and Glass-Lewis, whereas we highlight the ideological dimension of institutional investors revealed voting pattern, with socially oriented investors on the left and money-conscious investors on the right. Importantly, neither Bubb and Catan nor the literature we cite above consider public pension fund votes. The reason is that, unlike mutual funds, public pension funds are not subject to federal reporting requirements. They are, however, subject to state public records laws. This is the channel we used to obtain their voting records and to assemble our unique public pension fund voting data set.

The remainder of the paper is organized as follows. Section 2 describes the data and provides summary statistics. Section 3 explains the basic scaling methodology. Section 4 discusses the results. Section 5 concludes.

2. Data and Sample

Proxy Voting Rules

Shareholder Proposals

Under Rule 14a-8 of the Securities Exchange Act of 1934 qualifying shareholders can submit a proposal that will be included in the company's proxy statement and put forward to a vote at the shareholder meeting. To qualify a shareholder must have owned for at least one year \$2,000 or 1% of voting shares, and must submit the proposal 120 days before the annual meeting. The proposer must also hold her shares until after the shareholder meeting. Importantly, a proposal cannot exceed 500 words and generally must be in the form of precatory petitions to the board of directors. In addition, proposals cannot touch on ordinary business matters.

Once a firm receives a shareholder proposal, it can choose to include the proposal in its proxy materials, work with the proposer toward a mutual agreement (which may include withdrawal of the proposal), or submit a No-Action request to the SEC to exclude the proposal from the company's proxy statement, if the proposal is deemed to fall outside the rules.

In effect, the proxy voting rules reflect a general delegation principle whereby shareholders have entrusted the management of the company to officers and directors, who consequently should be protected against subsequent interference and second-guessing by shareholders. Shareholder proposals are essentially restricted to be about broader governance and political issues, and exclude business operational issues. It is therefore natural to interpret shareholder proposals as reflecting the broader political will of shareholders.

Management Proposals

Since January 2011, all U.S. firms are required by the Dodd-Frank Act to sponsor an advisory vote on executive compensation ("Say-on-Pay" vote) at least once every three years, and an advisory vote on "golden parachutes" associated with a merger. These non-binding votes apply to top executives of a

company. Binding equity-based compensation plans, such as executive incentive plans, usually are not voted every year (only once every 2-3 years). Management may also sponsor governance-related proposals, such as declassification of the board of directors, bylaw changes, cumulative voting, establishing/eliminating various committees, proxy access, and so on.

Capital-related proposals include dividend payment/increases, share repurchases, stock authorizations, and restructuring proposals are about M&A transactions, asset sales, spin-offs, and so on. Financial proposals are generally about approval of financial reports, and are routine proposals. Other routine or miscellaneous management proposals concern the adjournment of a meeting, or company name changes.

ISS Voting Analytics

Our primary data source is the ISS's Voting Analytics database. We focus on the Voting Results database between July 2011 and June 2012 (fiscal year 2012), which contains aggregate voting data covering the annual and special shareholder meetings. We chose this year because we were able to add votes of pension funds to the votes of institutional investors in the ISS database. The ISS database provides the identity of the company (name and CUSIP), description of the proposal, proposal number, shareholder meeting date, the identity of the sponsor, management and ISS recommendations, and the number of "For", "Withhold/Against" and "Abstain" votes, as well as the vote outcome (Pass/Fail).² All the Russell 3000 companies are included.

Following ISS's Proxy Voting Guidelines, we end up with the following proposals: environment, product safety, diversity, employment and human rights, charitable giving, political, other social proposals, governance, compensation related proposals, financial and investment policy proposals, and director elections.

We use the proposal ID to merge the voting results with the ISS Mutual Fund Voting Record database, which provides voting records (For, Against, or Abstain) by individual mutual funds from major families on each proposal in our sample. The sources for this database are N-PX filings that mutual fund companies are required to file via the EDGAR website. We aggregate fund level voting

² We categorize sponsors by following the definitions by Proxy Monitor: individual, company, social-other, religious institution, public policy interest group, proxy service, company-specific labor union pension fund, socially responsible investing fund, employee-owned asset manager, asset manager, and public pension fund.

information at the corresponding family level. According to Brav, Jiang, and Li (2017), a fund votes differently from other funds within the same family only 5.5% of the time.

Glass Lewis's voting recommendations

Glass Lewis's Proxy Paper database contains similar information to ISS's Voting Results database, covering both annual and special shareholder meetings. In addition, the database features Glass Lewis recommendations. We merge the Glass Lewis data with ISS Voting Analytics using CUSIP, meeting date and proposal number. As CUSIP and proposal number may differ between the two files, we manually check whether the unmatched proposals exist in ISS Voting Analytics.

In addition to the actual voters, we also treat ISS and Glass Lewis as two separate voters. These two "voters" are included primarily as a way of pinning down our scaling procedure. Our results are robust to excluding them.

Public Pension Fund Voting Records

To our knowledge, this is the first study that systematically examines public pension funds' voting records (Davis and Kim (2007) study only CalPERS's voting records for a limited number of proposals). Since there is no centralized database for U.S. public pension funds (state or city), we have used state public records laws to request their proxy voting records.³ Our list of 100 pension funds comes from *Pensions & Investments 1,000 largest retirement plans: 2016*. The data we received is similar in format to the ISS Mutual Fund Voting Record database. It provides the identity of the company (name and CUSIP), proposal number, description of proposal, shareholder meeting date, identity of sponsor, and vote cast. We merge this pension fund vote data with ISS Voting Analytics using CUSIP, meeting date, and proposal number. Again, when CUSIP and proposal number differ between the two files, we manually check whether the unmatched proposals in the pension fund data exist in ISS Voting Analytics.

Summary Statistics

Our mutual fund data is drawn from records provided by ISS Voting Analytics and our pension fund data from records for 28 public pension funds that we were able to obtain using

³ All 50 states in the U.S. have public records laws that allow members of the public (including non-residents) to obtain public records from state and local government agencies.

state public record laws. The Voting Analytics data covers 231 fund families. We dropped 11 mutual fund families who failed to cast at least 50 votes. We also dropped any proposal that did not secure a minority vote of 3% of the actual voters, and any proposals that had less than 20 voters. We were left with 6,069 proxy proposals and director elections between July 1, 2011 and June 30, 2012. Management made recommendations on all 6,069, ISS on nearly all with 6,046 recommendations, but Glass Lewis only made recommendations on 772 as it covers fewer firms (also our data on its recommendations end in December 2011).

The proposals concerned environment, product safety, diversity, employment rights, human rights, charitable giving, political, healthcare, animal rights, other social proposals, governance, compensation, and financial and investment policy proposals. Table 1 shows how the proposals are distributed by topic. Social-related shareholder proposals concern only several dozen large firms. This suggests that shareholders are targeting larger firms where social issues are most concerning. Management sponsors most compensation proposals, reflecting the fact that “Say-on-Pay” proposals have been mandatory since 2011.

The proxy voting data is sparse compared to congressional roll calls. We have 4,937,640 proposal-institution pairs, yet there are only 1,380,541 pairs where our institutions are eligible to vote. Of these there are 1,368 cases of abstention (that is a 0.10% abstention rate). Because abstentions are so rare, we treat them like non-ownership as missing data, parallel to the treatment of congressional abstention and non-membership by McCarty, Poole, and Rosenthal (1997). There were 5.30% votes “Against” a proposal and 94.60% votes “For”.

We added in, as votes, the recommendations by ISS and Glass Lewis. These “voters” are included primarily as a way of pinning down our scaling procedure. We thus parallel Poole and Rosenthal (2007, 1st edition 1997) who first “glued” interest group positions to a legislature vote matrix.

One feature of our data that makes it quite distinct from legislative roll call voting is that there are many proposals with relatively few voters. This “small legislature” problem is probably concentrated in the smaller firms of the Russell 3000 and could be avoided by focusing the estimation on the largest firms in the S&P1500 or S&P500. The number of voters varies by

proposal type. “Social” proposals, represented by the blue bars, appear more likely to have a high number of voters, with a median well above 100 voters. This could be due to the fact that such proposals are more common at large firms, which have a higher number of institutional shareholders and thus voters. Governance and Compensation proposals, represented by the orange bars, are next with a median number of voters of about 60, followed by financial and investment policy proposals, which have a median of around 50 voters.

3. Methodology

Our estimation uses the publicly available R version of McCarty, Poole, and Rosenthal’s (1997) W-NOMINATE. This and the closely related DW-NOMINATE (Poole and Rosenthal, 2007) have been widely used in the political science literature to determine legislators’ ideal points and the dimensions of their ideological disagreements. The basic idea is to project the choices shareholders face onto a low-dimensional Euclidean space. In this paper we consider mainly a one-dimensional space. But we also explore a two-dimensional scaling. A central assumption is that institutional investors have single-peaked preferences and that they vote in favor of the alternative that is closer to their ideal point. W-NOMINATE assumes that a voter’s ideal point has a deterministic and random component. Indeed, the estimation algorithm works best if votes are not perfectly predictable. More precisely, voter utility is a Gaussian function of the distance between the ideal point and the alternative, plus a random component that leads to a logit estimation. Voters who tend to vote similarly on most proposals will have ideal points that are closer together. For a comprehensive and detailed exposition of W-NOMINATE and other spatial scaling methods, see Poole (2005).

Note that each institution is treated as having a single vote. Votes are not weighted by the number of shares owned. Also, when funds in a given fund family do not vote unanimously, we take the vote of the fund family to be the vote of the majority of the funds in the family. Note, however, that for 98.9% of the proposals all the funds belonging to the same family vote the same way.

4. Results

We perform four different estimations. First, we run W-Nominate in one dimension on shareholder and management proposals, excluding director elections. Second, we add director elections. This allows us to see how sensitive investor ideal points are to the inclusion of director elections. Third and fourth, we run W-NOMINATE in two dimensions, respectively excluding and including director elections. Although the one-dimensional model provides a good fit overall to the data, the second dimension allows us to improve classification for some voters and to highlight a second substantive dimension of disagreement among institutional investors related to governance issues.

The overall fit of the W-NOMINATE estimation is given by three measures, the percentage of correctly classified votes, the aggregate proportional reduction in error (APRE), and the signal-to-noise ratio Beta, as shown in Table 2. An observed vote is a classification error if its predicted probability is less than 0.5. The APRE is defined as: $1 - (\text{Total Classification Errors})/(\text{Total Votes on Minority Side})$. Note first that classification is nearly as good whether we include or exclude director elections. Whether we include or exclude director elections, we correctly classify about 89% of the votes. Second, the APREs of 0.360 and 0.257 (for the one-dimensional model) are less than those for congressional roll calls, largely because votes are more one-sided. That is, minorities are smaller. In contrast, the Beta, or the signal-to-noise parameter, is estimated at 18.4 and 18.9, respectively, larger than those found for Congress. The large Betas show that the ideological component of voting is large relative to the random error components.

We begin our discussion of the main substantive results with Figures 1 and 1X that display the distribution of the number of voters across proposals, and with Figures 2, 2X, 2Y, and 2Z that display the positions and distribution of the estimated investor ideal points under the four different estimations described above.

One-dimensional model excluding director elections. Consider first the estimation results of the one-dimensional model, excluding director elections. This model is estimated from all the votes on shareholder and management proposals in our sample, after filtering out institutions that voted

less than 50 times, proposals with minorities comprising less than 3% of the voters, and proposals that had less than 20 voters. The top-left Panel of Figure 1 describes the distribution of proposals with a given number $x \geq 20$ of voters on the proposal. As can be seen, the modal proposal received more than 80 votes, and a significant number of proposals have more than 150 voters. The top-right Panel of Figure 1 describes how the distribution of the number of voters per proposal varies with the subject matter of the proposal. The proposals with the largest number of voters are social proposals, which include proposals on the environment, diversity, employment and human rights, political contributions, and product safety.

What is the ideology of institutional investors? A first set of answers to this fundamental question is provided in Figure 2.A, which describes the distribution of ideal points along one dimension for the mutual fund families and public pension funds in our sample. The top-left panel displays the ideal points of all institutions, and the other three panels separately plot the ideal points of mutual funds and the public pension funds. The distribution of the pension fund ideal points is shown in blue. The one-dimensional W-NOMINATE model constrains ideal points to the interval $[-1, +1]$. The arbitrary (and inconsequential) polarity of the estimation was chosen such that socially oriented investors appear on the left.

The first immediate observation from the top-left panel is that institutional investor votes are far from reflecting shareholder unanimity. Institutional investors differ markedly in their ideologies, with funds like Domini Social Investments on the far left of our one-dimensional spectrum and Needham Investment Management on the far right. Consistent with its voting, Domini describes its investment philosophy as follows: “We believe that all investments have social and environmental implications. We apply social, environmental and governance standards to all of our investments, believing they help identify opportunities to provide strong financial rewards to our fund shareholders while also helping to create a more just and sustainable economic system.” In contrast Needham Investment Management, LLC, describes its investment philosophy as focusing on investments with “an emphasis on tax-efficient capital appreciation and preservation”. Another far-right fund, Leuthold Weeden Capital Management, describes its investment philosophy as “quantitative measures of value combined with recognition of fundamental and technical trends, [and that it pursues] A policy

of disciplined, unemotional, and strategic investing, backed by solid and comprehensive research,” Table 3 contains a more detailed list of extremists both on the right and left end of the ideology spectrum. Neither Needham Investment Management nor any of the other far right funds listed in Table 3 mention anything about ethical, environmental, or social concerns.⁴

The second main observation is that the distribution of ideal points is close to unimodal, quite distinct from the bimodal distribution in Congress where political party polarizes members. (Not much should be made of the small peaks on the left and right ends; these arise partly through the [-1,+1] constraint in W-NOMINATE). There is a caveat to unimodality: the proxy adviser Institutional Shareholder Services (ISS) does appear to coordinate the votes of a significant number of institutional investors: forty funds that have nearly the same ideal point as ISS. The coordinating effect appears as a distinct peak in both panels. The same is true to a lesser extent of the other proxy advisor, Glass Lewis, who has about twenty investors with similar ideal points. Interestingly, ISS’s ideology is center-left, while Glass Lewis is center-right. A significant fraction of both institutional investors and public pension funds are in between ISS and Glass Lewis, an indication that they sometimes side with one or the other proxy adviser when the two advisers’ recommendations differ.

The third observation is that the two largest passive asset managers, Blackrock and Vanguard, have different ideal points than the two proxy advisers. Both asset managers have communicated that while they rely on the recommendations of ISS and Glass Lewis to guide their votes, they do not slavishly follow these recommendations.⁵ This voting policy is reflected in their different ideal points. Interestingly, their ideal points are to the right of the proxy advisers, which suggests that they were both less concerned about environmental and social issues.

⁴ This paragraph is based on a manual search of the web sites of the institutions.

⁵ In its Proxy Voting and Shareholder Engagement FAQ document Blackrock states “We subscribe to a number of different research products which we take into consideration when deciding how to vote at U.S. company meetings. We do not follow the recommendations of any one provider but make our voting decision based on what we consider to be in the best long-term economic interests of fund investors.” <https://www.blackrock.com/corporate/en-lu/literature/fact-sheet/blk-responsible-investment-faq-global.pdf>

So far we have not distinguished between public pension funds and mutual funds. But it is to be expected a priori that public pension funds have different ideologies from mutual funds because they may have a duty to vote in line with their members' preferences. This difference in ideologies is reflected in the remaining three panels of Figure 2.A. The blue portion of each bar pertains to public pension funds, the white to the other investors. As the top-right panel shows, public pension funds are more to the left than mutual funds. In particular, all public pension funds, with the exception of the pension fund of Indiana, are to the left of Vanguard and Blackrock. CalPERS is between ISS and Glass Lewis, and the most far left public pension funds are the Ohio Police & Fire Pension Fund, labeled in the panel, the AFSCME Employee Pension Plan, and the State Universities Retirement System of Illinois (SURS), which are listed in Table 3. In sum, the ideal-point results show a clear spatial structure. The left represents relatively socially-oriented investors, while the right represents more money-oriented investors⁶.

The bottom two panels of Figure 2.A provide further information on the position of ideal points of the largest and most prominent mutual fund families and public pension funds. It is worth noting that the pension fund of the AFSCME, the largest public services employee union, is far to the left of CalSTRS or CalPERS, two of the largest public pension plans, whose ideal points are center right. Most of the large institutions, such as PIMCO, JP Morgan, Goldman Sachs, Fidelity, Prudential (not reported) tend to be center-right, with the exception of Nuveen, which is center-left and follows ISS recommendations in most of its votes. Consistent with the reputations of their CEOs, Grantham, Mayo and Van Otterloo, LLC is the furthest to the left, and GAMCO furthest to the right of all the prominent fund families, as can be seen in the bottom-right panel.

Results of the one-dimensional model when director elections are added. Consider next the estimation results of the one-dimensional model when director elections are included. First the effect of adding director elections is not just to improve the estimation by adding a lot more votes, but

⁶ Some of the mutual fund families that are more on the right may also prefer an “engagement” rather than a “voice” approach in influencing management. They will vote along with management recommendations as long as they deem that management is positively engaging with them.

also to include elections with many more voters per election, as can be seen from the bottom-left panel of Figure 1.

How is the estimated ideal point of institutional investors changed by the addition of director elections? A comparison of the top-right panels of Figure 2.A and Figure 2.B reveals that for a large fraction of the institutions the ideal points changed to some extent, and for some of them they do so substantially. The main change is the shift of the ideal point of Glass Lewis to the far right and an associated increase in classification error, suggesting that the one-dimensional model performs less well when director elections are added.

Results of the two-dimensional model with and without director elections. Consider next the estimation results of the two-dimensional model. The fact that the position of Glass Lewis shifts from the center right to the far right in the one-dimensional model when we add director elections is a hint that Glass Lewis voting recommendations, and maybe the ideal points of some investors, may be better represented with a two-dimensional model. This is indeed what we find when we estimate the two-dimensional W-NOMINATE model.

Note first that even when we exclude director elections, a second dimension appears to be relevant from the way in which the ideal points spread out along the vertical axis in the three panels of Figure 2.C. While the location of the ideal points of investors along the first dimension is similar to their locations in the one-dimensional model with no director elections, their locations also spread out along the second dimension. What does this second dimension reflect? It seems to capture differences about corporate governance, with the funds at the bottom taking a more management-friendly stance and those at the top being more management-disciplinarians. The panels only labels the positions of some of the pension funds. It is interesting to see that the more socially minded pension funds are also the more management disciplinarian. Indeed, the top-right panel shows that the blue dots (pension fund positions) are nearly all bunched in the upper-left corner. In contrast, for mutual fund families, labeled in the bottom panel, their differences are such that the more socially responsible funds, like Nuveen and Grantham, Mayo, are more management-friendly, while GAMCO is more profit-oriented and more of a management-disciplinarian.

The addition of director elections magnifies the differences of investors along the second dimension, as can be seen by comparing the three panels in Figure 2.C and 2.D. Note, in particular how the position of Glass Lewis along the second dimension moves from 0.5 to close to 1, when we add director elections. In effect, Glass Lewis' ideology is extremely management-disciplinarian on governance issues, as its voting recommendations on directors indicate. As for pension funds, the addition of director elections moves Christian Brothers further in a management-friendly direction. Finally, the ideal points of mutual funds for the most part do not appear to be much affected by the addition of director votes, except for a few mutual funds who coordinate their votes with Glass Lewis.

The differences in ideal points between the four models we estimate can be summarized more succinctly by looking at the correlations in the positions of the ideal points across the four models. The correlation coefficients are reported in Table 4. Note first that the addition of director elections substantially modifies the ideal points estimated with the one-dimensional model. The correlation coefficient of ideal points estimated without director elections and with director elections in the one-dimensional model is only 0.682. However, when we add a second dimension in the data including director elections, the correlation between the ideal points in the one-dimensional model excluding director elections and the ideal points in the two-dimensional model including director elections is 0.9126! This confirms both the robustness of the one-dimensional model, excluding director elections, and the importance of a second dimension that reflects corporate governance differences when we add the most important governance decision shareholders face in practice, the election of directors on the board.

Extremist Investors. The identity of the extremists shown in Table 3 allows us to make a first simple exploration on whether their voting records, summarized by the estimated ideal points, correspond to the advertised investment philosophies of these funds. As noted above, this is by and large the case. Table 3 reports the identity of left and right extremists, when ideal points are mapped onto a single dimension, and also the identity of extremists along each dimension, when ideal points are mapped onto a two-dimensional space. There are then four groups of extremists, with the second dimension capturing those investors that are extremely

management friendly on director elections at one end and those that are extreme management disciplinarians at the other end.

Besides the ideal points of extremists, Table 3 also reports standard errors, and correct classifications for the selected extremist investors. Standard errors come from running 100 parametric bootstraps in W-NOMINATE⁷. Those in Table 3 range from 0.04 to 0.17, showing that the ideological locations are estimated relatively precisely (more generally, standard errors decrease with extremism but increase with the number of votes cast by the institution). Note the difference in classification between the left and right extremists, which suggests that proposal voting may exhibit considerable heteroskedasticity, contrary to the assumption underlying W-NOMINATE that all errors are i.i.d from the same distribution. Nonetheless, the results make substantive sense, with socially oriented investors on the left and profit-oriented ones on the right for the first dimension, and the pro-management investors at the top and the management-disciplinarians at the bottom of the second dimension.

Coordination by Proxy Advisers. Which funds tend to mostly follow the recommendations of one of the two proxy advisers? We report the identity of these investors in Table 5. These funds may not apply much discretion in their proxy voting beyond communicating with their proxy advisers, and thus limit themselves to following one of the proxy adviser's recommendations. In the one-dimensional model, ISS and the investors close to it all classify nearly perfectly. In contrast, Glass Lewis itself and investors close to it classify less well. However, in the two-dimensional model, Glass Lewis and its followers classify nearly as well as ISS and its followers.

Distribution of Midpoints and Substantive Issues dividing Voters. We next turn to the analysis of the substance of proposals dividing the voters, and the locations of the midpoints separating the institutions that vote "Yes" and "No" on any given proposal. Figure 3 reports the distribution of proposals' midpoints for the one-dimensional model without director elections. At the midpoint, the probabilities of voting "For" and "Against" are both 0.5. The midpoint is the position on the line that separates the predicted "For" from the predicted "Against" the

⁷ Robustness analysis with 50, 100, 500 and 1,000 bootstrap iterations indicated that there were only very marginal gains in increasing the number of iterations beyond 100.

proposal. Unlike Congress, where the midpoints are in the center, many midpoints here are at the extremes, especially on the left. Many proposals bump up against the constraint of having an ideal point at the edges of the space. There are 375 of the 3,230 proposals with midpoints at -1, and 128 at +1. These proposals are not informative. The estimated probability of a voter voting with the majority is always at least 0.5. The left end is chosen for the midpoint if left voters are more likely to go against the majority than voters on the right, and vice-versa for proposals at the right end. The proportional reduction of error (PRE) for these proposals is zero. For proposals with interior midpoints the average PRE (not to be confused with the aggregate proportion in error defined above) is 0.395. The non-informative proposals drag the average PRE for all proposals down to 0.332.

The distribution of midpoints varies by proposal type. The mid-points for social proposals have a bi-modal distribution, with some on the left and another big group just right of the center. The mid-points for Governance and Compensation proposals tend to be more concentrated on the left of the distribution, while Financial and Investment Policy proposals are bimodal with the remaining proposals concentrated to the right. The modal interior financial proposals cut between BlackRock and GAMCO; the modal interior social proposals cut between ISS and Glass Lewis.

The final step in our analysis explores what the substantive issues were in the proposals that define the left-right dimension. We first found 1,018 proposals that had estimated midpoints between -0.99 and -0.4, that were classified at .88 or better, and that had at least 50 voters. These proposals always opposed the leftmost voters to ISS. Remarkably, 95.58% of such proposals were an “Advisory Vote to Ratify Named Executive Officers’ Compensations”. That is, these were all “Say-on-Pay” votes that became mandatory with the Dodd-Frank Act. Interestingly, those voting against these proposals were on the left. This is not necessarily to be expected a priori because a vote against a large CEO pay package may be in the interest of all shareholders, including the more money-oriented investors. The observed opposition of the more left-leaning investors could reflect the fact that the more socially responsible investors are also more inequality averse. The rest of the proposals comprised financial policy

(15 proposals) and social proposals (30 proposals) on political contributions, environmental issues and animal rights.

We next looked at midpoints between ISS and Glass Lewis. Between -0.12 and 0.22 we found no perfectly classified votes with at least 50 voters. We found 18 proposals that classified at 0.88 or better. All but one were management proposals on executive compensation; while the other was on director compensation. Fifteen of these proposals were sponsored by management, two by individuals and the remaining one by a public policy interest group. All the remaining proposals were sponsored by management. They dealt with compensation and stock issuance.

Moving to midpoints further to the right, we found 70 proposals with midpoints between 0.46 and 0.65 that classified at better than 0.88 with at least 50 voters. These proposals should have divided BlackRock from GAMCO. These proposals are mainly about corporate governance issues and compensation. Twelve were to declassify the Board of Directors. Thirteen were about majority vote for election to the board, and four about poison pills. Thirteen pension funds, eleven individuals, two public policy groups and two asset managers each sponsored one proposal. ISS did not list a sponsor for five. The management sponsored the rest.

Finally, there were 48 votes with midpoints between 0.65 and 0.99, a range between GAMCO and the investors constrained at the right end of the dimension, more than 50 voters, and classified at .88 or better. They are, with the exception of two compensation proposals, all about governance. Twenty-three are about declassifying the board of directors, and 11 about supermajority.

Another way of describing institutional investors' ideological differences is to see how they voted on the different types of issues up for a vote. There were only 9 environmental proposals that classified at better than 0.88 and had more than 50 voters. The midpoints of these proposals fell between -1 and -0.41. That is, they split the left from the majority of investors and from ISS recommendations. Similarly, 17 political proposals that met the same criteria

also split toward the left, with midpoints ranging from -1 to -0.44. On the whole, social proposals divided, not surprisingly, at the left end of the continuum.

The four most common categories of non-social proposals were compensation (2,437 proposals), governance (302), and capital (115). The respective numbers for proposals with over 50 voters and classifications above 0.88 were 1,180, 103, and 33. Midpoints for this set of compensation and capital proposals were over the full -1, +1 range.

5. Conclusion

What is the ideology of institutional investors? In this paper we have applied the standard spatial model to analyze institutional shareholder voting. We found that institutional investors' ideologies can be represented along a left-right spectrum just like legislators' ideologies. As with Congress, a second dimension of disagreement is also relevant for institutional investors. This second dimension captures the different corporate governance stances of investors, with the management-friendly investors at one end of the spectrum and the management disciplinarians at the other end.

To be sure, there are important differences between the corporate governance settings and legislatures. The way proposals come to a vote is different, the effect of passing a shareholder proposal is different, the composition of institutional investors varies from firm to firm and over time. Yet, we have found that the W-NOMINATE scaling method and the spatial representation of investor ideal points succeeds.

We have found a first dimension encompassing voting on a variety of issues, just as the main dimension in congressional voting encompasses voting on taxes, reproductive rights, gun control, and other issues. The left on our dimension is distinguished not just by its votes on "Social" proposals but also by being a minority on many "Say-to-Pay" proposals on executive compensation. Even though compensation proposals are major fraction of our data, other proposals map nicely onto the dimension. A second dimension captures institutions' stance on governance-related matters as expressed through votes on director elections. It sees Glass-Lewis and a few public pension funds taking a tough stand on director elections on one side,

and most of the large mutual fund families on the other. Our results differ somewhat from the proxy voting literature in that we do not find that large institutions follow the proxy advisers closely.

In sum, the ideological representation of institutional investor heterogeneity that we uncover provides an alternative view of investor heterogeneity than, say, differences in risk preferences or information. The interpretation of the dimensions we found is, of course, open to discussion, much as is the meaning of liberal and conservative in politics. The sorting on “Say-to-Pay” may reflect different beliefs about how much executive compensation contributes to shareholder returns. On the other hand, there could be agreement about what compensation maximizes shareholder returns but that the left is open to lowering shareholder returns in ways that promote environmental and other social objectives.

As encouraging as our results are, the analysis we have conducted here is in many ways exploratory, and many open questions remain. We have only analyzed the proxy votes for fiscal year 2012, and we are extending the analysis to multiple years in a separate paper. In future work we plan to further analyze the characteristics of the companies. This will allow us, in particular, to better understand how stable the ideological differences of institutional investors are.

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Figure 1: Distribution of Number of Voters on Proposals, Fiscal Year 2012.

This Figure shows the distribution of the number of institutions voting on a given proposal. The top-left panel covers all proposals, except for director elections, while the top-right panel plots the Governance and Compensation proposals, the Social proposals, and the Financial and Investment Policy proposals separately. The bottom-left covers all proposals, including director elections, while the bottom-right panel plots the distribution of the number of voters on director elections alone. The samples comprising proposals voted on in the fiscal year 22012 and have been filtered to exclude institutions voting on less than 50 proposals and proposals with the minority comprising less than 3% of the voters and with less than 20 voters.

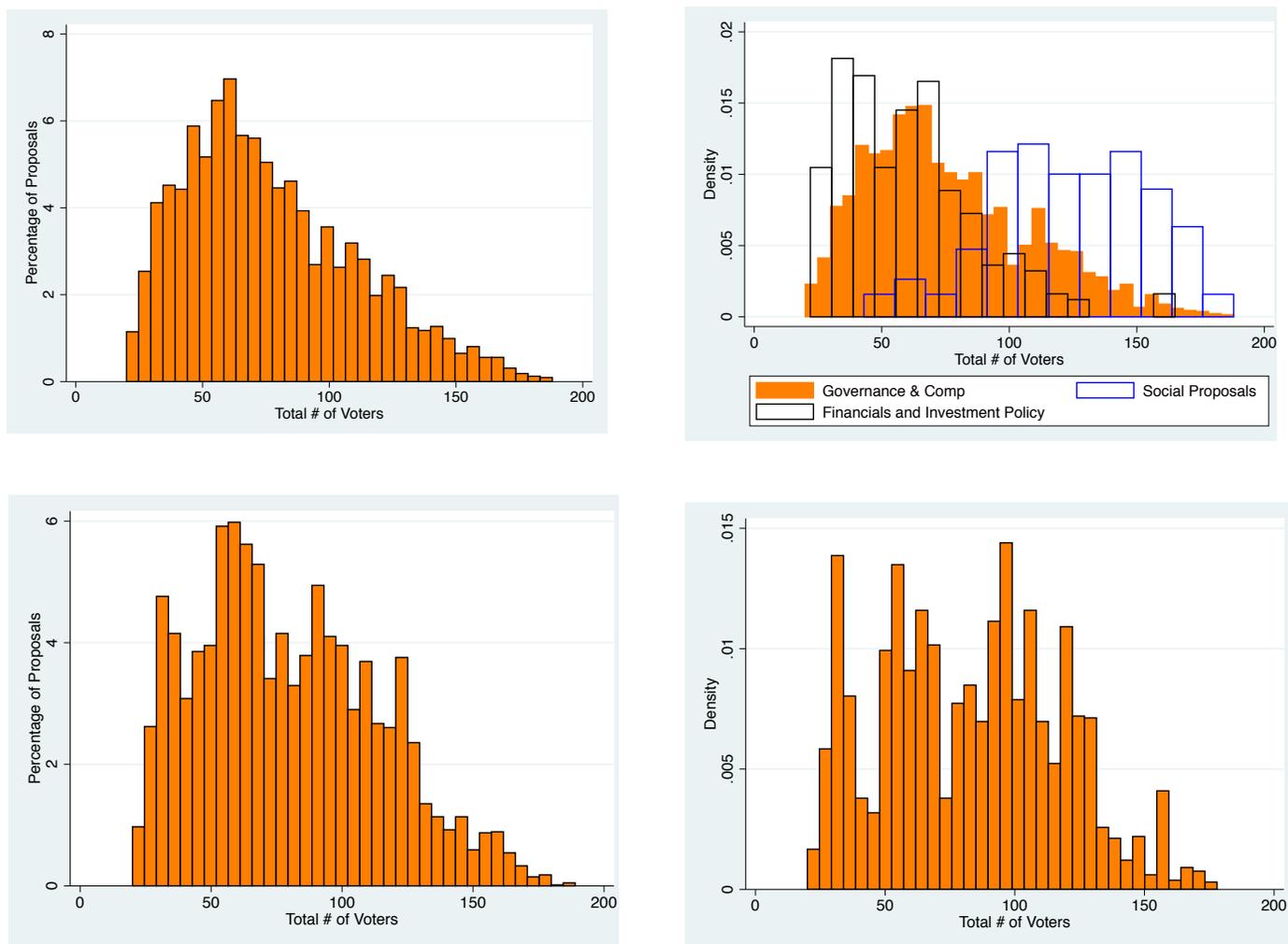


Figure 2.A: Ideal Points, One Dimension W-NOMINATE, excluding Director Elections

This Figure plots the distribution of institutions ideal points estimated with the W-NOMINATE scaling method. The estimation sample covers all proposals for the fiscal year 2012, except for director elections. The sample excludes institutions voting on less than 50 proposals, and proposals with the minority comprising less than 3% of the voters and with less than 20 voters. The top-left Panel reports the distribution of the ideal points for all voters. The other three Panels separate the distribution of mutual fund families' ideal points, depicted by the white bars, and of public pension funds, depicted in blue. The one-dimensional W-NOMINATE model constrains ideal points to the interval $[-1, +1]$. The arbitrary (and inconsequential) polarity of the estimation was chosen such that socially oriented investors appear on the left.

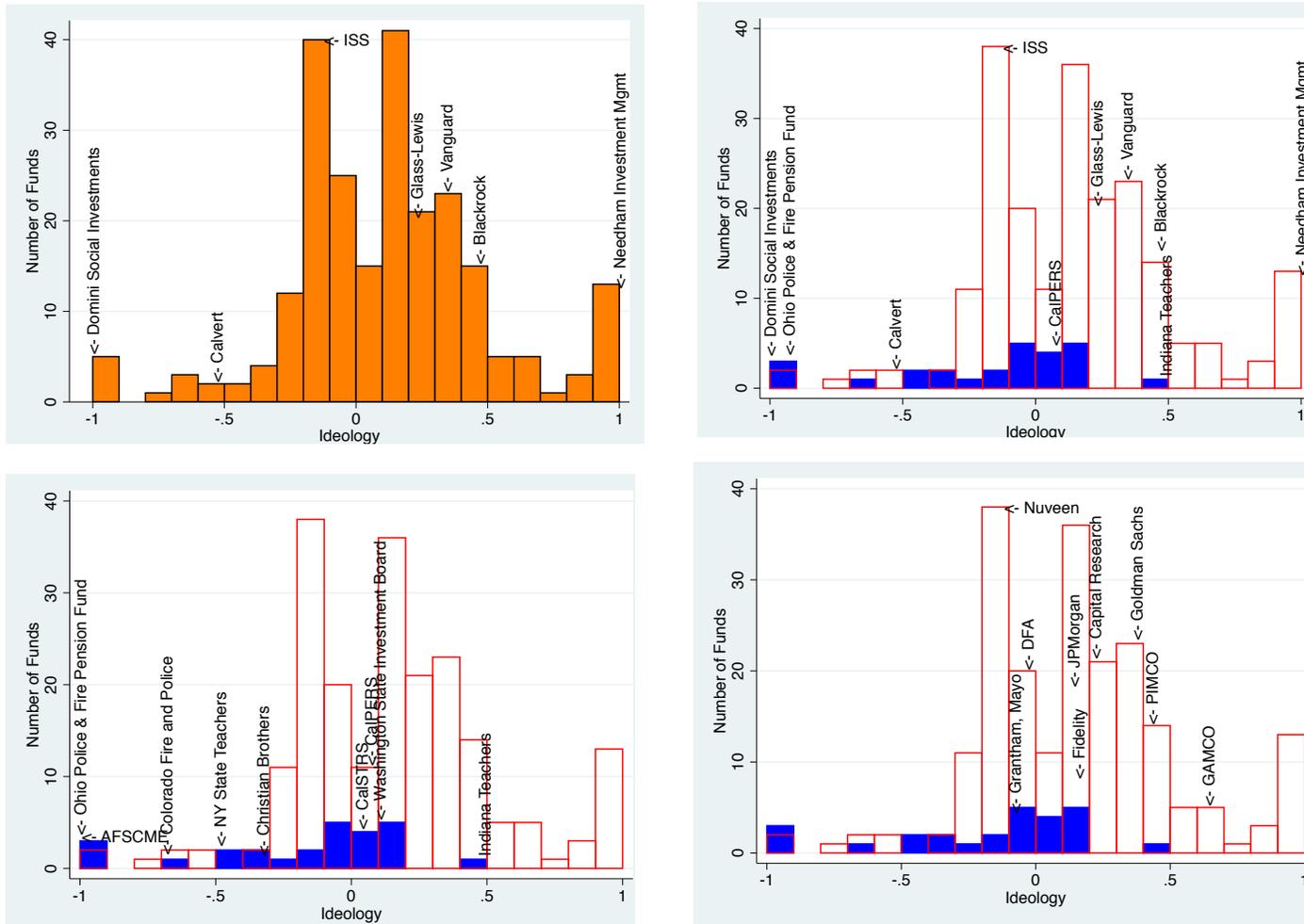


Figure 2.B: Ideal Points, One Dimension W-NOMINATE, including Director Elections

This Figure plots the distribution of institutions ideal points estimated with the W-NOMINATE scaling method. The estimation sample covers all proposals for the fiscal year 2012, including director elections. The sample excludes institutions voting on less than 50 proposals, and proposals with the minority comprising less than 3% of the voters and with less than 20 voters. The top-left Panel reports the distribution of the ideal points for all voters. The other three Panels separate the distribution of mutual fund families' ideal points, depicted by the white bars, and of public pension funds, depicted in blue. The one-dimensional W-NOMINATE model constrains ideal points to the interval [-1, +1]. The arbitrary (and inconsequential) polarity of the estimation was chosen such that socially oriented investors appear on the left.

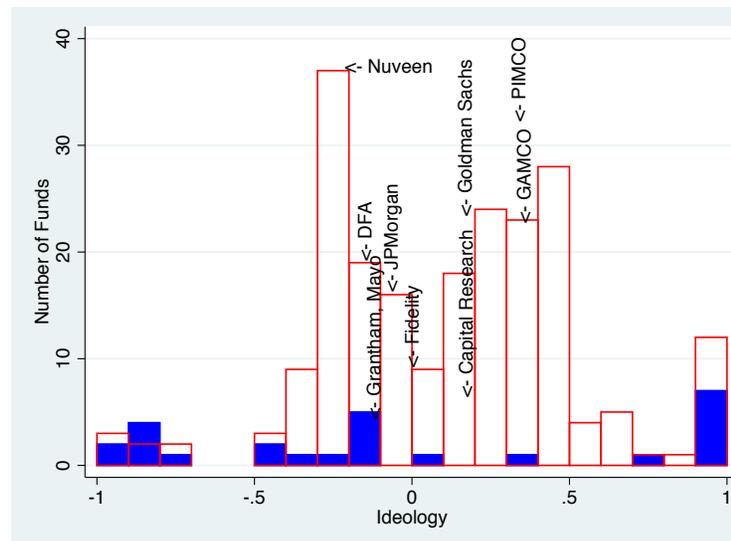
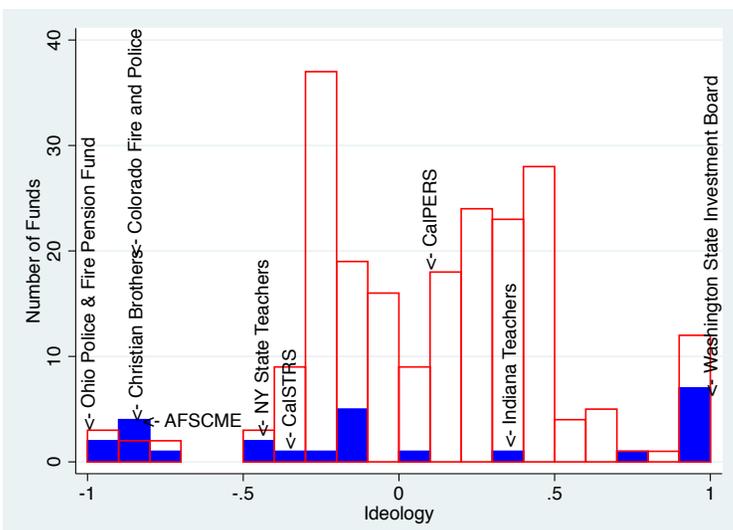
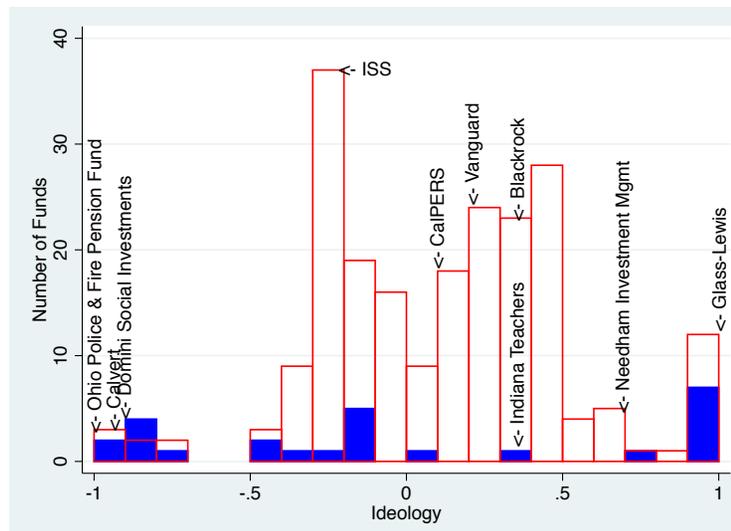
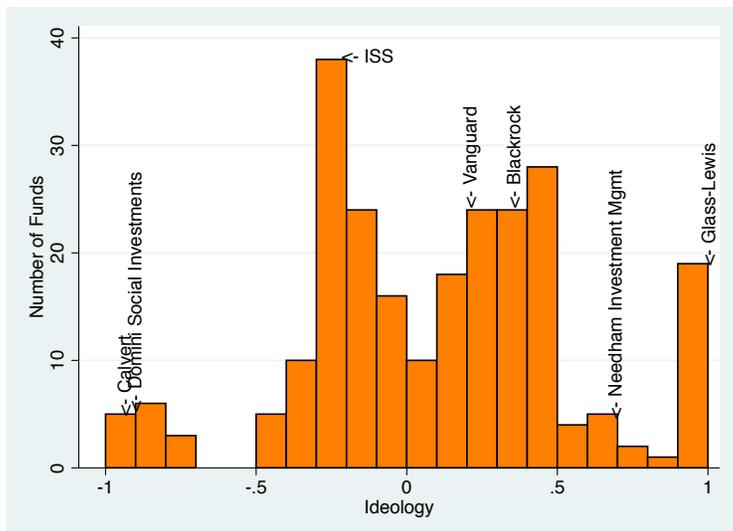


Figure 2.C: Ideal Points, Two Dimension W-NOMINATE, excluding Director Elections

This Figure plots the distribution of institutions ideal points estimated with the W-NOMINATE scaling method. The estimation sample covers all proposals for the fiscal year 2012, excluding director elections. The sample excludes institutions voting on less than 50 proposals, and proposals with the minority comprising less than 3% of the voters and with less than 20 voters. All Panels reports the distribution of the ideal points for all voters, although they each highlight different institutions. The mutual fund families' ideal points are depicted in orange, while the public pension fund ones are depicted in blue. The two-dimensional W-NOMINATE model constrains ideal points to the interval [-1, +1]. The arbitrary (and inconsequential) polarity of the estimation was chosen such that socially oriented investors appear on the left, and the tough on governance investors to appear on top part of the graph.

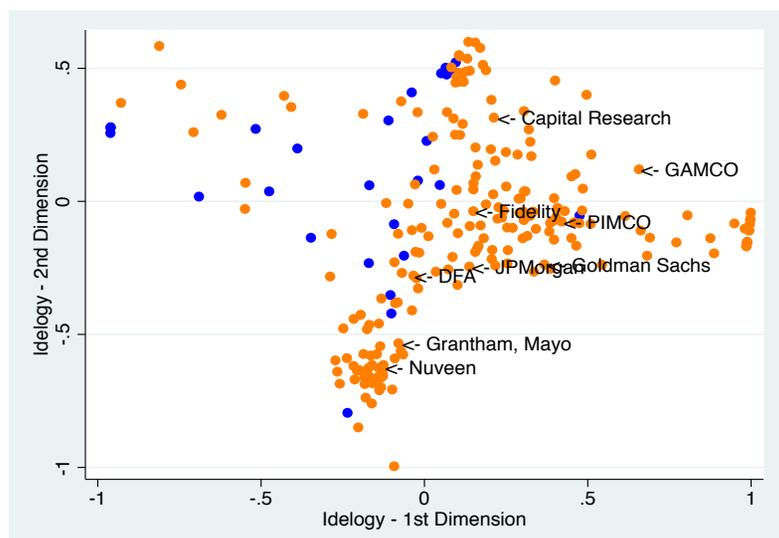
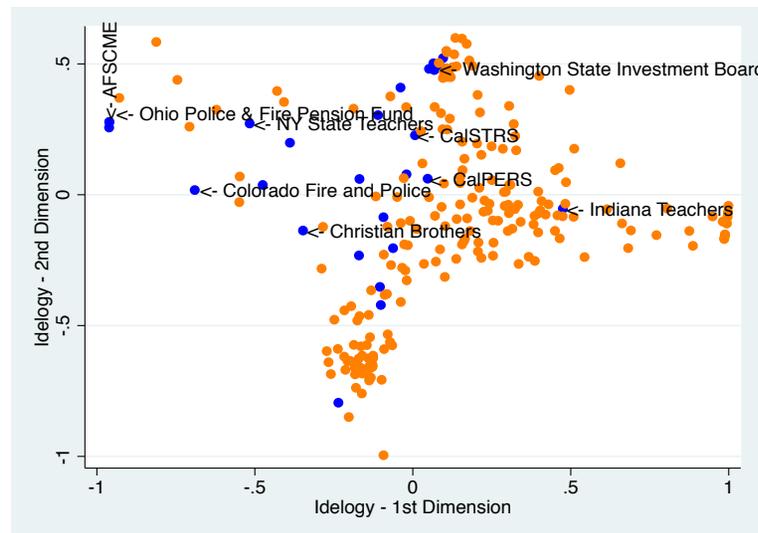
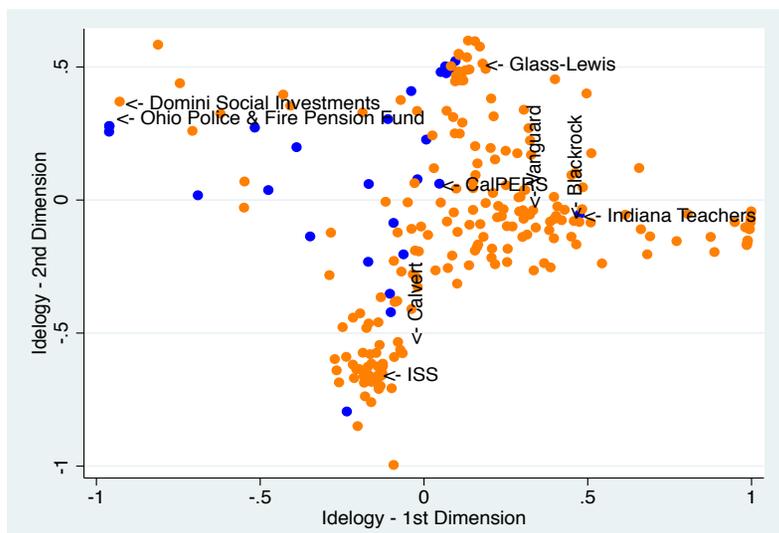


Figure 2.D: Ideal Points, Two Dimension W-NOMINATE, including Director Elections

This Figure plots the distribution of institutions ideal points estimated with the W-NOMINATE scaling method. The estimation sample covers all proposals for the fiscal year 2012, including director elections. The sample excludes institutions voting on less than 50 proposals, and proposals with the minority comprising less than 3% of the voters and with less than 20 voters. All Panels reports the distribution of the ideal points for all voters, although they each highlight different institutions. The mutual fund families' ideal points are depicted in orange, while the public pension fund ones are depicted in blue. The two-dimensional W-NOMINATE model constrains ideal points to the interval [-1, +1]. The arbitrary (and inconsequential) polarity of the estimation was chosen such that socially oriented investors appear on the left, and the tough on governance investors to appear on top part of the graph.

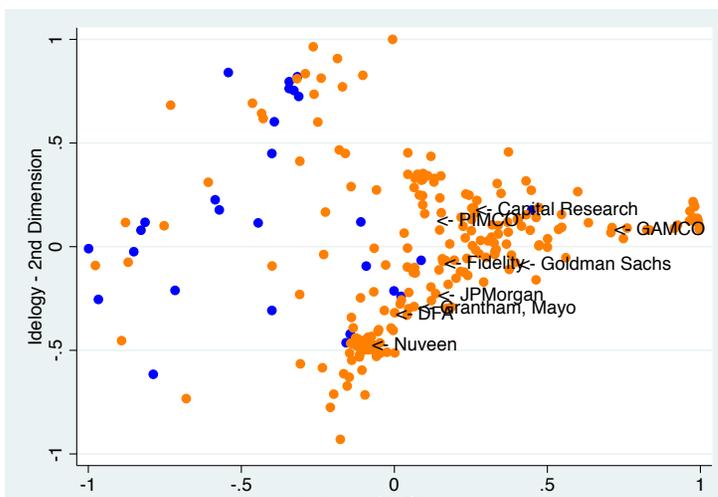
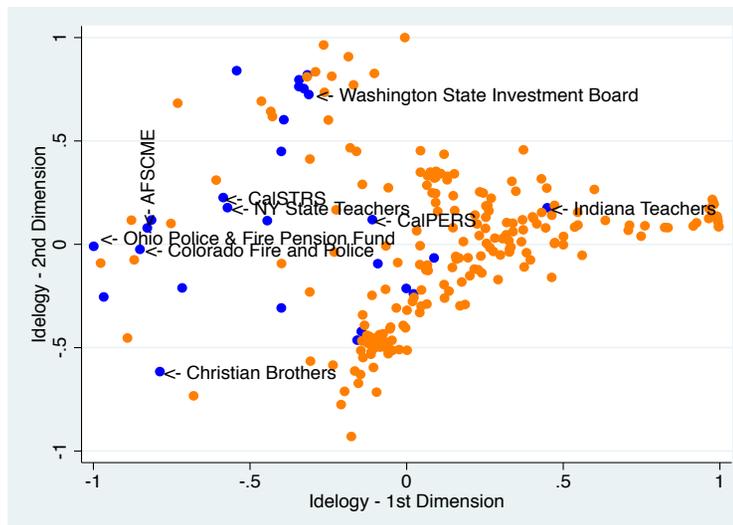
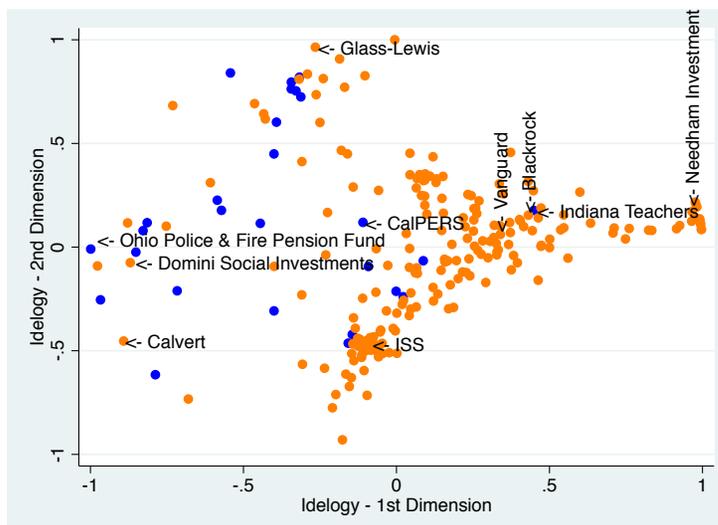


Figure 3: Distribution of Midpoints by Proposal Type, One Dimension W-NOMINATE, excluding Director Elections

This Figure plots the distribution of proposal midpoints estimated with the W-NOMINATE scaling method. The midpoint is the position on the line that separates the predicted “For” from the predicted “Against” the proposal. The estimation sample covers all proposals for the fiscal year 2012, except for director elections. The sample excludes institutions voting on less than 50 proposals, and proposals with the minority comprising less than 3% of the voters and with less than 20 voters. The top-left Panel reports the distribution of the midpoints for all proposals, while the other three Panels report the distribution of the Governance and Compensation proposals, the Social proposals, and the Financial and Investment Policy proposals, respectively.

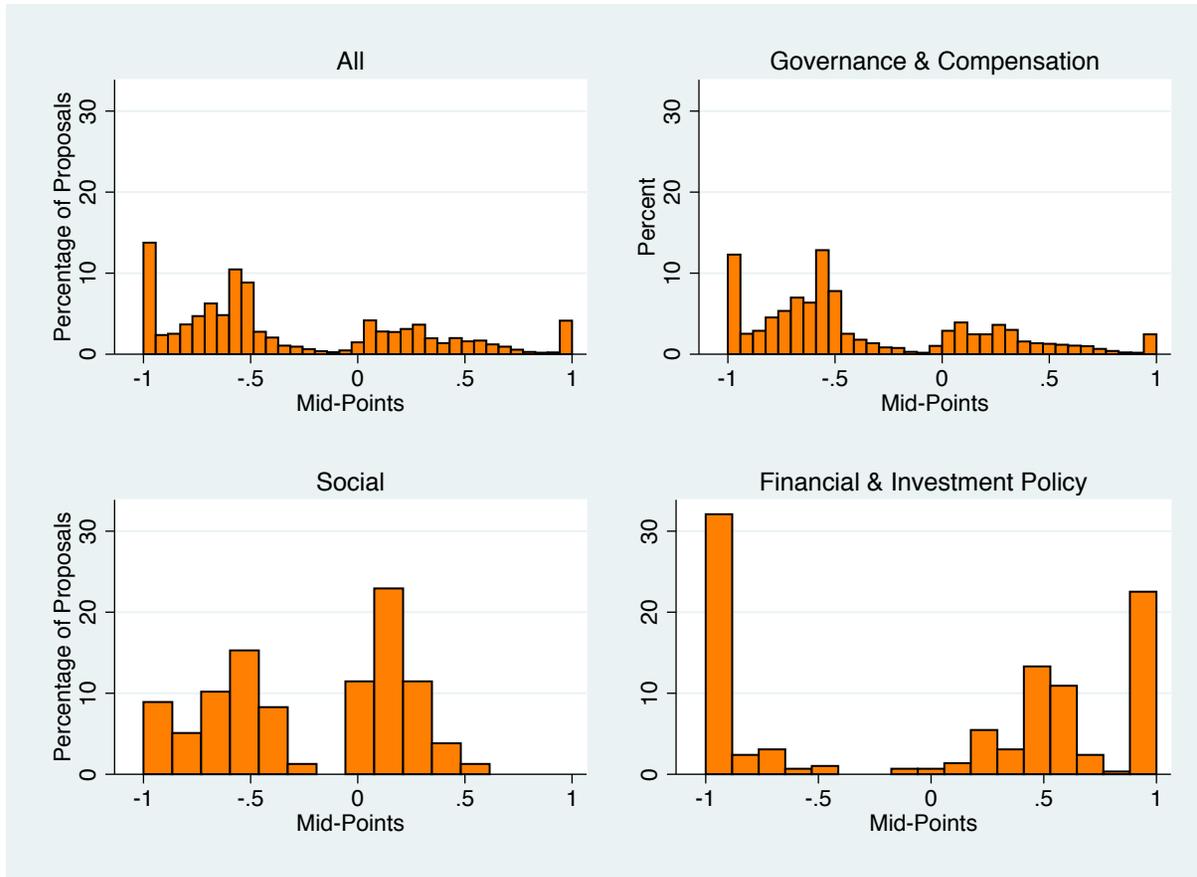


Table 1: Summary Statistics - Frequency of proposals by proposal type

This Table reports the number of total and shareholder-sponsored proposals in our sample by type and category. It also reports the number of distinct firms the proposals are about. The sample covers all proposals from the fiscal year 2012, including director elections, and excludes institutions voting on less than 50 proposals, and proposals with the minority comprising less than 3% of the voters and with less than 20 voters.

Proposal type	Proposal category	Number of proposals (by shareholder)	Number of firms
Animal rights	Social	14 (14)	14
Charitable giving	Social	1 (1)	1
Diversity	Social	11 (11)	11
Employment and human rights	Social	15 (15)	15
Environment	Social	51 (51)	40
Political	Social	76 (76)	68
Product safety	Social	2 (2)	2
Social – other	Social	4 (4)	2
Compensation	Governance and compensation	2441 (66)	1,832
Governance	Governance and compensation	302 (232)	230
Director Elections	Director Elections	2840 (19)	690
Capital	Financials and investment policy	115 (1)	105
Financials	Financials and investment policy	10 (0)	10
Investment policy	Financials and investment policy	1 (0)	1
Other (management)	Routine/miscellaneous	179 (0)	168
NA	NA	7 (0)	4
Total		6,069 (492)	

Table 2: Results of W-NOMINATE Estimation

This Table reports the number of institutions and proposals, and some diagnostics from the four versions of the W-NOMINATE model we estimate in the paper. The third and fourth columns reports the percent of votes correctly classified in the 1st and 2nd dimension, respectively. This statistics is calculated as $(\text{CorrectYea} + \text{CorrectNay}) / (\text{CorrectYea} + \text{WrongYea} + \text{CorrectNay} + \text{WrongNay})$. The fifth and sixth columns reports the Aggregate Proportion Reduction in Error (APRE) for the 1st and 2nd dimension, respectively. The APRE is equal to the sum over all votes of the minority vote minus the number of the W-NOMINATE classification errors, divided by the sum of the minority vote over all votes. For each vote, this measure is 1 if there are no classification errors and 0 if the number of spatial model errors equals the minority vote. The seventh column reports the signal to noise ratio, Beta. The first two rows report the results from the one-dimensional model estimated on the sample without and with director elections, respectively. The last two rows report the results from the two-dimensional model estimated on the sample without and with director elections, respectively.

	Number of Institutions	Number of Proposals	% Correctly Classified, 1st Dim	% Correctly Classified 2nd Dim	APRE 1st Dim	APRE 2nd Dim	Beta
1 Dim No Director Elections	236	3,212	88.71%		0.360		18.4
1 Dim w. Director Elections	242	5,840	89.79%		0.257		18.9
2 Dim No Director Elections	236	3,212	88.59%	90.77%	0.354	0.477	16
2 Dim w. Director Elections	242	5,840	89.01%	92.61%	0.201	0.462	18.6

Table 3: Extremist Investors

Panel A reports the identity, ideal point, standard errors, and fraction of votes correctly classified of the 12 leftmost and rightmost institutions, based on the One-Dimensional W-NOMINATE model estimated on the sample of all proposals for the fiscal year 2012, excluding director elections. Panel B reports the identity, ideal points and standard errors of the 12 leftmost and rightmost institutions, based on the Two-Dimensional W-NOMINATE model estimated on the sample of all proposals for the fiscal year 2012, including director elections. In both cases the sample excludes institutions voting on less than 50 proposals, and proposals with the minority comprising less than 3% of the voters and with less than 20 voters.

Panel A: One-Dimensional W-NOMINATE Scaling, excluding Director Elections

Institution Name	Ideology	Std. Error	Fraction Correctly Classified
<i>Socially and Environmentally oriented</i>			
State Universities Retirement System of Illinois (SURS)	-1	0.0406014	0.8564146
AFSCME Employee Pension Plan	-1	0.0593653	0.9155673
Domini Social Investments LLC	-1	0.0736323	0.896679
Ohio Police & Fire Pension Fund	-1	0.1363079	0.9622642
Empiric Advisors, Inc	-0.917505	0.0720895	0.7808219
WisdomTree Asset Management	-0.7306432	0.1111746	0.7729643
Pax World Management Corp	-0.6875532	0.1179762	0.6849894
Colorado Fire & Police Pension Association (FPPACO)	-0.6821969	0.1157618	0.794686
Jackson National Asset Management, LLC	-0.6005707	0.1143257	0.7622714
Calvert Group, Ltd.	-0.5303257	0.1144833	0.7870281
UTC Fund Services, Inc	-0.5144994	0.1355006	0.7311828
New York State Teachers Retirement System	-0.484915	0.1141347	0.7075937
<i>Profit Oriented</i>			
Marsico Capital Management LLC	0.9491551	0.1313011	0.9735099
Rydex Investments	0.9714119	0.199926	0.9937324
Jensen Investment Management, Inc.	1	0.0950249	1
Cooke & Bieler, L.P.,	1	0.1151064	1
Volumetric Advisers, Inc	1	0.1243023	1
Bridges Investment Management, Inc.	1	0.1259405	1
Calamos Asset Management, I	1	0.1342461	0.9933481
Leuthold Weeden Capital Management	1	0.1504895	0.9759358
Trustmark Investment Advisors, Inc.	1	0.1514402	0.9889135
Reynolds Capital Management	1	0.1535707	0.9926538
Friess Associates, LLC	1	0.161549	1
Needham Investment Management LLC	1	0.1916469	0.9902913

Panel B: Two-Dimensional W-NOMINATE Scaling, including Director Elections

Institution Name	Ideology 1st Dim	Ideology 2nd Dim	Std. Error 1st Dim	Std. Error 2nd Dim	Fraction Correctly Classified
Extremists on the 1st Dimension					
<i>Socially and Environmentally oriented</i>					
Ohio Police & Fire Pension Fund	-0.9989651	-0.0095981	0.0434665	0.1151622	0.8923077
Pax World Management Corp	-0.976948	-0.0910049	0.0385936	0.0319733	0.7246377
Ohio School Employees Retirement System (SERS)	-0.9670365	-0.2546375	0.0448805	0.0649262	0.7669065
Calvert Group, Ltd.	-0.8913175	-0.4533794	0.0619557	0.0746769	0.8636037
WisdomTree Asset Management	-0.8785616	0.1166445	0.0491969	0.0792481	0.7306455
Domini Social Investments LLC	-0.8697582	-0.075208	0.0778093	0.0370363	0.6963979
Colorado Fire & Police Pension Association	-0.8513868	-0.0243774	0.0630661	0.0270709	0.6920152
AFSCME Employee Pension Plan	-0.8279667	0.0792581	0.0660947	0.0397954	0.6837853
<i>Profit Oriented</i>					
Marsico Capital Management LLC	0.9809152	0.1944362	0.1160106	0.0888284	0.9869707
Jensen Investment Management, Inc.	0.9811485	0.1932558	0.1029333	0.1173121	0.9911504
Friess Associates, LLC	0.9906669	0.1363052	0.0954109	0.0862293	1
Bridges Investment Management, Inc	0.9920452	0.1258818	0.1117008	0.1033579	1
Leuthold Weeden Capital Management	0.9930625	0.1175876	0.1432511	0.0593078	0.9907039
Reynolds Capital Management	0.9941231	0.1082563	0.1462523	0.0414461	0.9960971
Barrett Associates, Inc.	0.9963291	0.0856065	0.239556	0.122352	1
Trustmark Investment Advisors, Inc.	0.9963739	0.0850823	0.1320021	0.0569607	0.9955654
Extremist on the 2nd Dimension					
<i>Pro-Management's Director Proposals</i>					
Causeway Capital Management	-0.1765543	-0.9297277	0.1325974	0.260078	0.988764
Stralem & Company Incorporated	-0.2091381	-0.7753727	0.1203853	0.2105241	0.9878788
Bridgeway Capital Management	-0.6800677	-0.7331493	0.0841974	0.0664145	0.952495
Boyar Asset Management, Inc	-0.0959181	-0.7154444	0.1315982	0.2035705	1
Cornerstone Advisors, Inc	-0.1980749	-0.7115669	0.1310051	0.1828997	0.9927007
MUTUALS ADVISORS, INC.	-0.1540645	-0.672493	0.1106386	0.1457806	1
Lee Financial Group Inc.	-0.1473095	-0.629871	0.1000739	0.1589973	1
Christian Brothers Investment Services	-0.7877735	-0.615965	0.096274	0.1018067	0.8879266
<i>Tough on Management's Director Proposals</i>					
Van Eck Associates Corporation	-0.2390296	0.8128663	0.1735331	0.1191618	0.9922414
Alberta Investment Management Corporation	-0.3168525	0.8197463	0.1068036	0.0897202	1
Trust and RidgeWorth Capital Management, Inc	-0.1029997	0.8264984	0.133908	0.0829214	0.957377
ICON Advisers, Inc	-0.290886	0.8344118	0.1515676	0.1068897	1
Ohio Public Employees Retirement System	-0.5425367	0.8400321	0.0617823	0.0434301	0.9077253
Wall Street Management Corporation	-0.1858493	0.9074973	0.18024	0.0856031	1
Glass-Lewis	-0.2650611	0.9642316	0.4518573	0.0233672	0.9250354
E.I.I. Realty Securities, Inc.	-0.0056221	0.9999842	0.1732291	0.1863926	0.9651163

Table 4: Correlations in the positions of the ideal points across the four models

This Table reports the correlation between institutions' ideal points estimated using the One-Dimensional W-NOMINATE model excluding and including director elections, and the Two-Dimensional W-NOMINATE model excluding and including director elections. In all four cases the sample covers all proposals for the fiscal year 2012, and excludes institutions voting on less than 50 proposals, and proposals with the minority comprising less than 3% of the voters and with less than 20 voters.

	Ideology 1st Dim, 1Dim No Dir	Ideology 1st Dim, 1Dim w. Dir	Ideology 1st Dim, 2Dim No Dir	Ideology 1st Dim, 2Dim w. Dir
Ideology 1st Dim, 1Dim No Dir	1			
Ideology 1st Dim, 1Dim w. Dir	0.682	1		
Ideology 1st Dim, 2Dim No Dir	0.9988	0.6596	1	
Ideology 1st Dim, 2Dim w. Dir	0.9126	0.4598	0.9232	1

Table 5: Investors almost always following ISS or Glass-Lewis

This Table reports the identity, ideal point and standard errors, and fraction of votes correctly classified of the ten institutions voting most similarly to ISS and Glass-Lewis, respectively. Panel A is based on the One-Dimensional W-NOMINATE model estimated on the sample of all proposals for the fiscal year 2012, excluding director elections. Panel B is based on the Two-Dimensional W-NOMINATE model estimated on the sample of all proposals for the fiscal year 2012, including director elections. It estimates the distance from ISS and Glass-Lewis using the Euclidean distance measure. In both cases the sample excludes institutions voting on less than 50 proposals, and proposals with the minority comprising less than 3% of the voters and with less than 20 voters.

Panel A: One-Dimensional W-NOMINATE Scaling, excluding Director Elections

Institution Name	Ideology	Std. Error	Fraction Correctly Classified
<i>Funds closest to ISS</i>			
IronBridge Capital Management, LP	-0.132251	0.1111166	1
Optique Capital Management, Inc.	-0.1307827	0.1050293	0.9963031
Nicholas Company, Inc.	-0.1301991	0.1173708	0.995671
SEI Investments Management Corporation	-0.127955	0.1033009	0.9972255
Denver Investment Advisors LLC	-0.1269286	0.1111474	1
ISS	-0.1244554	0.1036829	0.9949953
Nuveen Asset Management	-0.1222239	0.1028209	0.9971182
ProFund Advisors LLC	-0.1220426	0.1019952	0.9968603
Scout Investment Advisors, Inc.	-0.1136275	0.1077511	0.9765101
Touchstone Funds	-0.1065441	0.1018462	0.8143036
Rainier Investment Management, Inc.	-0.1002134	0.1064989	0.9868421
<i>Funds closest to Glass-Lewis</i>			
Capital Guardian Trust Co.	0.2143837	0.1002091	0.8241206
Capital Research & Management Co.	0.2199504	0.0925345	0.7122693
Croft-Leominster Inc.	0.2214455	0.1060122	0.8421053
USAA Investment Management Company	0.2234831	0.0951617	0.8846899
Wilshire Associates Incorporated	0.2270922	0.0954079	0.8224784
Glass-Lewis	0.2299644	0.0968237	0.7704194
Morgan Stanley Investment Advisors, Inc.	0.2314469	0.0966472	0.8201998
Trust and RidgeWorth Capital Management, Inc	0.2325901	0.0921104	0.8398357
Artisan Partners, LP	0.2377985	0.0995258	0.8820513
McCarthy Group Advisors, LLC	0.2381723	0.0957645	0.8245067
Litman/Gregory Fund Advisors, LLC	0.2483154	0.0982664	0.8184615

Panel B: Two-Dimensional W-NOMINATE Scaling, including Director Elections

Institution Name	Ideology 1st Dim	Ideology 2nd Dim	Std. Error 1st Dim	Std. Error 2nd Dim	Fraction Correctly Classified	Distance from ISS	Distance from Glass- Lewis
<i>Funds closest to ISS</i>							
ISS	-0.0802989	-0.4654026	0.1016973	0.0852929	0.9980979	0.00E+00	1.441524
Nuveen Asset Management	-0.0791675	-0.4666074	0.103978	0.0852017	0.999466	0.0016528	1.442864
ProFund Advisors LLC	-0.0780569	-0.4656529	0.103965	0.0841749	0.9993072	0.0022559	1.442061
Driehaus Capital Management	-0.0820636	-0.4678459	0.1198174	0.1048435	1	0.0030139	1.443722
SEI Investments Management	-0.0708615	-0.4766822	0.1077952	0.0897641	1	0.0147069	1.453941
First Trust Advisors L.P.	-0.0738382	-0.4802861	0.1098293	0.0887037	1	0.0162253	1.45712
Rafferty Asset Management	-0.065168	-0.4741867	0.117549	0.090763	0.9979608	0.0174958	1.452241
Variable Annuity Life Ins. Co.	-0.0985051	-0.4766209	0.1208821	0.0831862	0.9858318	0.021385	1.450447
Optique Capital Management	-0.0961231	-0.45074	0.098326	0.0806632	0.9982865	0.021573	1.425021
NY Life Investment Mgmt	-0.0803371	-0.491434	0.1121778	0.0888037	0.9949312	0.0260314	1.46734
Henderson Global Investors	-0.1063214	-0.4694489	0.114846	0.1391771	0.9952153	0.0263352	1.442442
<i>Funds closest to Glass-Lewis</i>							
Glass-Lewis	-0.2650611	0.9642316	0.4518573	0.0233672	0.9250354	1.441524	0.00E+00
Wall Street Management Co.	-0.1858493	0.9074973	0.18024	0.0856031	1	1.376951	0.0974335
ICON Advisers, Inc	-0.290886	0.8344118	0.1515676	0.1068897	1	1.316763	0.1323635
Alberta Investment Mgmt Co.	-0.3168525	0.8197463	0.1068036	0.0897202	1	1.306738	0.1534873
Van Eck Associates Co.	-0.2390296	0.8128663	0.1735331	0.1191618	0.9922414	1.288087	0.1535874
Destra Capital Advisors LLC	-0.3179823	0.8100597	0.1439207	0.1063649	0.99217	1.29742	0.1630019
Penn Public School Employees	-0.3435082	0.7959371	0.089219	0.0779517	0.9950276	1.28851	0.1856798
Trust and RidgeWorth Capital	-0.1029997	0.8264984	0.133908	0.0829214	0.957377	1.2921	0.2126837
Charles Schwab	-0.1694729	0.771202	0.1841808	0.09968	0.9721927	1.239816	0.2154009
NC Dptmt of State Treasurer	-0.3437578	0.7628613	0.0855951	0.076441	0.993869	1.256202	0.2162017
Oregon Investment Council	-0.3282306	0.7534009	0.0875955	0.0805548	0.9957882	1.243765	0.2200909