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Abstract

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JEL Classification: G30, G32

Keywords: Proxy voting, institutional investors, Socially responsible investment

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Investor Ideology[1]

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March 5, 2019

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1. Introduction

We conduct an empirical analysis of voting by 262 institutional investors and public pension funds on proxy ballots of publicly listed Russell 3000 firms. Following a "political" approach pioneered by Poole and Rosenthal (1985), we use proxy voting records to estimate voters' ideal points along one, or possibly two, salient policy dimensions. The estimates provide 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. A basic question in political science is the extent to which voting is driven by interests or by ideology, where ideology is broadly conceived as voting behavior across a wide set of different issues, such as environmental proposals, director elections, votes to declassify the board, or increase dividends, that is driven by an underlying belief system binding preferences over these issues together (see Converse, 1964). We ask this question for proxy voting and explore to what extent institutional investor voting is driven by ideology, and whether ideology can 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 estimate a spatial single-peaked representation of voter preferences that are subject to a random utility (McFadden, 1976). Their method is commonly referred to as NOMINATE; it has been widely applied to study legislative voting and other binary choice problems such as consumer preferences across products, the psychometric study of perceptions and educational testing (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.[2]

What do the institutional shareholder votes reveal about the ideology expressed at the fund-family 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

[2] Although fund managers have a fiduciary duty to vote, in practice votes are nearly always decided at the fund family level (Morningstar, 2017). Indeed, we find that only 1.11% of fund-proposal observations have at least one fund within a family that votes differently than the other funds. By contrast, some public pension funds delegate voting to their asset managers. When this occurs, we disaggregate to the level of the fund managers retained by the pension fund.

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 proposals that could financially cost shareholders. This is a somewhat simplified description. We provide more nuance to the social versus financial value distinction and, more broadly, heterogeneous beliefs across investors in our analysis.

It is important to emphasize that NOMINATE is agnostic as to where ideology comes from and what it represents. Inference is only based on how investors vote. No other information, such as the identity or the investment philosophy of funds is used to infer ideology. The one-dimensional representation of differences in investor ideology is a statistical representation, which best fits the voting behavior of investors. That being said, it would not be entirely surprising that ideological differences 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. Consistent with the results of Matvos and Ostrovsky (2010), we find that Institutional investors differ systematically in how they vote. Moreover, the differences in how they vote reflect underlying ideological differences. This is all the more remarkable given 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 recommend voting against most shareholder proposals. If we treat ISS and Glass Lewis' voting recommendations as votes we find that the ideology of ISS is in the center, to the left of most institutional investors but to the right of most public pension funds. Glass Lewis, Vanguard, Blackrock, are center-right.

We also explore the representation of ideology in a two-dimensional space. By moving to two dimensions we obtain slightly better classification and we reveal that ideological differences are not just about more or less social and environmental responsibility but also about governance, with investors differing on how tight a discipline should be imposed on management.

Finally, whether these ideological differences reflect 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) wheher 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 and Bebchuk and Hirst, 2018); 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) and Babenko, Choi, and Sen (2018) observe 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)[3], 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 violates the i.i.d. assumption on errors in both Heckman-Snyder and W-NOMINATE. More importantly, as a result of their focus on individual mutual funds, with little overlap in their portfolios, Bubb and Catan's matrix of fund-vote observations is extremely sparse, with 96% of missing entries.[4] In contrast, our fund-family double-centered distance matrix only has 4.31% missing data, as fund-family portfolios significantly overlap. Another significant difference in our approaches is that Bubb and Catan exclude proposals that have less than 8% in minority votes, while we only exclude proposals with less than 3% minority. This is significant because proxy votes unlike roll-call votes in Congress, are highly lop-sided, so that even a small minority can indicate significant opposition. Importantly, the votes with small minorities are needed to distinguish between fund families that are simply "right" or "left" from those that are "extreme right" or "extreme left". As we do, Bubb and Catan rely on mutual fund voting data from ISS and voting recommendations from Glass-Lewis, but over a longer time interval (from fiscal years 2010 through 2015), while we only consider data from the fiscal year that runs from July of 2011 through June of 2012. Bubb and Catan emphasize the political party role of proxy advisers ISS and Glass-Lewis, whereas we highlight the ideological differences across institutional investors revealed by their voting pattern, with socially oriented investors on the left and more 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 a public pension fund voting data set.

[3] A later version of the NOMINATE algorithm of Poole and Rosenthal (1985).

[4] Bubb and Catan do the singular value decomposition (SVD) of their fund-vote matrix after filling in the missing entries via imputation. We follow Poole's (2005) methodology to impute a "mean" distance of 0.25 for each missing entry in our double-centered distance matrix and then do the SVD of this matrix.

The remainder of the paper is organized as follows. Section 2 describes the data and provides summary statistics. Section 3 explains our methodology. Section 4 discusses the results on institutional investors ideal point. Section 5 describes the proposal midpoint characteristics and the substantive issues separating institutional investors. Section 6 contains further analysis on proposal midpoints, investor coalitions, and firm and director characteristics. Section 7 provide a preview of whether investor ideology evolves over time. Section 8 concludes.

2. Data and Sample

Our analysis focuses on Russell 3000 companies holding annual and special shareholder meetings during the fiscal year 2012. The reason why this year is of special interest is that we were able to add votes of pension funds to the votes of institutional investors. This year is of special interest as it is the first year containing a large number of say-on-pay proposals, which became mandatory following the implementation of Dodd-Frank. Below we provide the details of the sample construction and describe the variables we use in our analysis.

Proposals and Proxy Voting Rules

Tables 1.A and 1.B show the distribution of the proposals in our sample by topic, by recommendation, and by votes of mutual fund families and pension funds. The rules and voting procedures for shareholders of publicly traded companies are complex, as Kahan and Rock (2008) describe in detail. This is not the place to give a comprehensive treatment of all the steps involved in identifying shareholders, communicating the proxy material, organizing a vote, and tallying the votes. Below we mainly highlight the most relevant aspects for our analysis.

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 governance and broader social concerns of shareholders.

Table 1.A shows that shareholder proposals are concentrated in the governance and social categories. Governance-related proposals cover, among others, declassification of the board of directors, bylaw changes, cumulative voting, establishing/eliminating various committees, and proxy access. There are 314 such proposals in our sample, and 73.25% of them are sponsored by shareholders. Social proposals cover animal rights, environmental protection, diversity, employment and human rights, political contributions, product safety and other social matters. Altogether there are 177 such proposals in our sample, and all of them are shareholder-sponsored.

The majority of the proposals in our sample are sponsored by management. Table 1.A shows that, if we exclude director elections, management proposals constitute 86% of the proposals in the sample. Of these, the largest category are Say on Pay proposals (53.5%), which became mandatory after passage of Dodd-Frank in 2010.[5] 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 also sponsors the majority of capital-related, financial, and routine proposal, which constitute 10% of the non-director sample. Capital-related proposals include dividend

[5] 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.

payments/increases, share repurchases, and stock authorizations. Restructuring proposals are about M&A transactions, asset sales, spin-offs, among others. 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.

If we include in the sample director elections which, except for proxy contests, are sponsored by the company management, the fraction of management-sponsored proposals jumps to 96.6%.

While the majority of the proposals are put on the ballot by management, Table 1.B shows that the support rate among ISS (column 4), Glass Lewis (column 5), the mutual fund families and public pension funds in our sample (columns 6 and 7, respectively), and all the shareholders voting on the proposals (column 8) varies significantly across proposal type and doesn't always go in favor of management. On the one hand, both Say on Pay and Financial and Investment Policy proposals receive significantly less than unanimous support on average. On the other hand, both Governance and Social proposals, which tend to be shareholder-sponsored and opposed by management, receive significant support from the institutional investors in our sample, especially the public pension funds, and to a significantly lesser extent from the shareholders overall. The average Governance proposal receives the support of 65.04% (68.6%) of the mutual (pension) funds, while the average Social proposal receives the support of 29.48% (34.10%) of the mutual (pension) funds in our sample.

Mutual Fund Voting Data and Proxy Advisor Recommendations

Our primary data source for mutual fund voting behavior is the Mutual Fund Voting Record database from ISS Voting Analytics, which provides voting records (For, Against, or Abstain) by individual mutual funds based on N-PX filings that mutual fund companies are required to file via the EDGAR website. The ISS database provides the identity of the fund and fund family, name and country of incorporation of the company whose proposal it is voting on, a description of the proposal, proposal number, shareholder meeting date, management recommendation, and the fund vote. We aggregate fund level voting information at the corresponding family level and supplement the data above with ISS recommendations, and

whether the sponsor is management or a shareholder. Our analysis is restricted to Russell 3000 companies that held one or more shareholder meetings during this period. The final total number of firms in our sample is 2,856 of the Russell 3000 companies for the fiscal year 2012.[6]

We merge the Glass Lewis recommendations with the above dataset using company name, ticker, meeting date, and proposal text. In addition to the actual voters, we also treat ISS and Glass Lewis as two separate voters. These two "voters" are included primarily to illustrate the position of funds who followed either proxy advisor's recommendations in all their votes. Our results are robust to excluding them.

Public Pension Fund Voting Records

To our knowledge, this is the first study that examines a large number of public pension funds' voting records (Davis and Kim (2007) study only CalPERS' voting records for a limited number of proposals). In independent work Duan, Jiao, and Tam (2018) have also analyzed proxy voting of public pension funds, relying on the data provided by Proxy Insight. We have constructed our data directly by using state public records laws to request public pension funds proxy voting records.[7] Our sample comprises the 37 funds that responded to our request for information.[8] 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 Records using company name, meeting date, and proposal number and text. We then manually checked whether the unmatched proposals in the pension fund data exist in ISS Mutual Funds Voting Records.

[6] Some companies are missing either because they were acquired or because there is no shareholder meeting for these companies in our data for this period.

[7] 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.

[8] Some pension funds employ multiple fund managers some of which vote quite differently. For this reason, the West Virginia and the Indiana public pension funds were disaggregated to the fund manager level. The West Virginia votes were disaggregated into State Street Global Advisors (WV - SSGA), Westfield (WV – Westfield), Intech (WV – Intech), CBRE (WV – CBRE) and AJO (WV – AJO). The Indiana votes were disaggregated into the component managed in-house, the one managed by BNY Mellon (Indiana - BNY) and the one managed by Columbus Circle (Indiana - CC).

Sample Construction

Our mutual fund data includes 229 fund families and 37 pension funds that voted on proxy ballots of 2,856 companies that were in the Russell 3000 index for that year. We dropped 2 pension funds and 12 mutual fund families who failed to cast at least 50 votes. Adding in ISS, Glass Lewis, and "Management" as additional voters, we estimate a total of 262 ideal points. 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 15,035 proxy proposals. Management made recommendations on all 15,035, ISS on nearly all with 14,919 recommendations, and Glass Lewis on 14,883.

The proxy voting data is sparse compared to congressional roll calls. We have 2,438,670 proposal-institution pairs, yet there are only 1,555,586 pairs where our institutions voted. (We ignored abstentions which occurred in only 0.1% of pairs. 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 16.10% votes "Against" a proposal and 83.90% votes "For".

Firm and Director Characteristics

The data on firm characteristics is reported in Table 1.C. The balance sheet and income statement information is from COMPUSTAT; the past-year total return, the dividend yield and the Amihud liquidity measure were constructed based on information from the Center for Research on Security Prices (CRSP); executive compensation information was obtained from ExecuComp, which includes base salary, bonus and stock option data for the top five executive officers; while governance characteristics are from RiskMetrics. For our sample of firms holding meetings, the average (median) firm has assets worth $16.4 ($1.67) billion, and a market capitalization of $7.6 ($1.2) billion. The average return on assets is 9.3%, while the previous-year stock return is -2.8% on average. The average firm has a book-to-market ratio of 0.63, pays a 1.7% dividend, and has a leverage ratio of 0.35. The Amihud illiquidity measure for the average firm is 0.07.

We also report information on various governance variables. The median board has 9 members and comprises 81.8% independent directors. These figures are consistent with the findings in the extant literature (e.g., Cai, Garner and Walkling, 2009; Li, 2018). On average, in our sample the board is classified in 41% of the cases, a poison pill is in place in 13.8% of the firms, the CEO has a golden parachute in 81.3% of the cases, the supermajority required to approve a merger is 58.7%, and unequal voting rights are present in 4.3% of the firms. We report two executive compensation metrics as in Hartzell, Ofek and Yermack (2004), the year-to-year percentage change in total compensation, and cash compensation as a percentage of total compensation. At the median company, annual growth in executive compensation is 9.4%, and the cash-to-total compensation ratio is 29.6%.

Finally, we highlight here that the mean institutional ownership is over 70%, indicating that institutional shareholder voting is the determining factor in shareholder voting.

The data on the characteristics of directors coming up for election is drawn from the ISS director database, covering the S&P 1500 firms. Table 1.D reports their main characteristics. Just over 11% of directors are female, and over 92% are Caucasian. About 37% of directors are classified as financial experts, and over 78% of directors as independent. They sit on average on 0.89 outside boards, and control on average 1% of the firms on whose board they sit on.

3. Methodology

Revealed Preference Theory is a standard theory in economics establishing, under some weak rationality assumptions, that a consumer's preferences, or utility function, can be "revealed" from her past consumption choices. Similarly, in the Basic-Space Theory of Ideology of Poole and Rosenthal (1985, 1987, 1991, 1997), voters' ideologies can be revealed based on their past votes. The meaning of "ideology" here is in the sense of Converse (1964): voting behavior is ideological when voting across a wide set of different issues is predictable, presumably because an underlying belief system binds voting preferences over these issues together. However, ideology is a relative concept and cannot be determined from an individual voter's past votes

in isolation. It can only be inferred by comparing the past votes of multiple voters on the same issues against each other.

Suppose that there are $i = 1, \ldots, p$ voters and $j = 1, \ldots, q$ proposals. If all p voters always vote the same way, if there is completely unanimous agreement on all issues, then the ideology of voters cannot be determined. All one can say is that voters are always in full agreement. But if voters do not always vote the same way it is possible to determine which other voter(s) voter *i* is closest to, or which other voters voter *i* agrees with most, by computing agreement scores between any two voters, which are simply the proportion of issues on which the two voters vote the same way.

Consider, for example, the votes of three large institutional investors in our sample, CalPERS, Fidelity, and GAMCO. In total they have voted unanimously on 5,315 out of 6,359 proposals on which they have voted together in fiscal year 2011-2012 (see Exhibit A below). Based on their 1,044 non-unanimous votes, it is possible to determine whether CalPERS is closer to Fidelity or to GAMCO. The agreement score of CalPERS and Fidelity is 0.891, the score between CalPERS and GAMCO is 0.863, and that between Fidelity and GAMCO is 0.918. From these scores we can infer that Fidelity and GAMCO are the closest to each other, and that CalPERS is closer to Fidelity than GAMCO. These simple observations suggest that, in some relevant space to be determined, Fidelity's ideological position lies between CalPERS and GAMCO.

Exhibit A:

Number of Proposals	CalPERS	Fidelity	GAMCO
331	**Against**	**For**	**For**
190	**For**	**Against**	**Against**
218	**Against**	**Against**	**For**
130	**For**	**For**	**Against**
13	Against	For	Against
162	For	Against	For
58	Against	Against	Against
5,257	For	For	For
Total Proposals=6,359			

Another observation from Exhibit A is that it is rare for CalPERS and GAMCO to vote against a proposal when Fidelity votes in favor (this occurs only 13 times). It is also rare for CalPERS and GAMCO to vote for a proposal when Fidelity votes against (this occurs only 162 times). Either CalPERS or Fidelity vote opposite to GAMCO much more frequently (348 times), or GAMCO and Fidelity vote opposite to CalPERS (521 times). This is another way of seeing that among the three voters, CalPERS and GAMCO are the extremists and Fidelity the centrist voter.

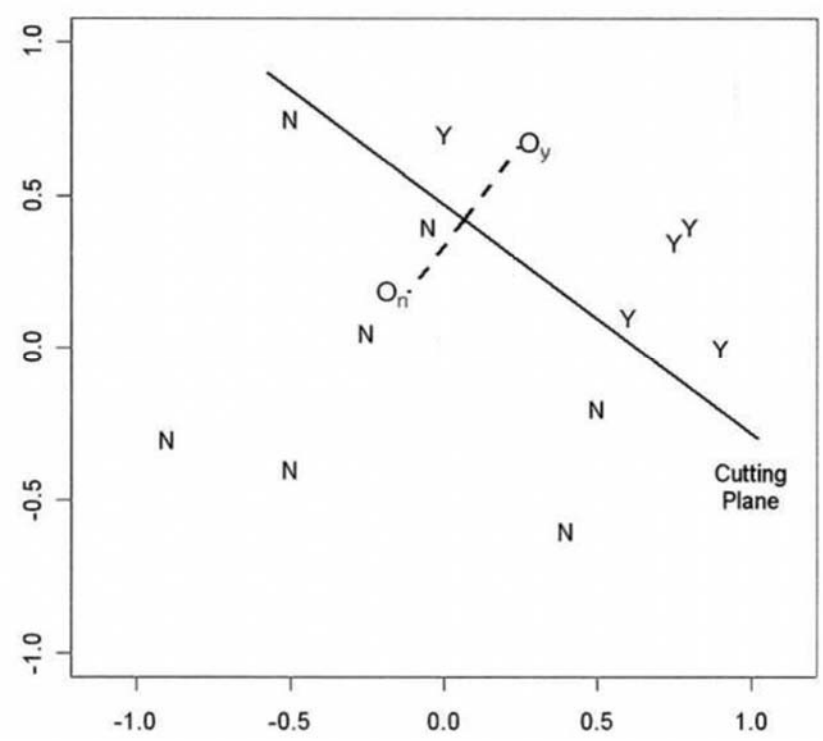
How can we determine ideologies more generally based on votes? What Poole and Rosenthal have shown is that it is possible to represent voters' relative ideological positions in a low-dimensional Euclidean space (typically one or two dimensions). We use their W-NOMINATE procedure in this paper. The key to this representation is a basic assumption, with a long tradition in political science: That voters have symmetric single-peaked preferences, with the ideal point at the peak (Black, 1958). A second assumption is that voters have random utility shocks, which has a long pedigree in economics (see McFadden, 1976). Under these assumptions, voters vote for the outcome on a particular proposal whose position is closest to their ideal point, with errors.

The geometry of voting: Under the above assumptions the location of each voter's ideal point can be represented by a point in an N-dimensional Euclidean space, and the location of each issue to be voted on by two points, each representing respectively the outcomes if the issue is defeated and if it is passed.

In a one-dimensional space, each voter *i* can then be located by a point on a line, x_i. The two voting outcomes for a given proposal *j* can also represented by two points, respectively o_{jy} and o_{jn}, where y stands for Yea, the outcome when a majority of voters is in favor of passing the issue, and n for Nay, the outcome when a majority is against. The midpoint of the two outcomes is $z_j = (o_{jy} + o_{jy})/2$. A voter whose ideal point is at the midpoint of a proposal is indifferent between the two outcomes in terms of spatial preferences. This voter essentially does a coin toss using the random shocks.

In two dimensions, analogous to the midpoint, there is a cutting line, which is the perpendicular bisector of the line joining the two outcomes. For a proposal, any voter whose ideal point is on the cutting line is indifferent in terms of spatial preferences. Exhibit B provides an illustration of the cutting line, while examples from our sample are reported in Figure 7 and discussed in Section 6 of the paper.

Exhibit B



If error is present, the problem of estimating the cutting lines is equivalent to a logit or a probit, depending on the assumptions about the error distribution. Each fund's utility function has two components: a deterministic one that depends on the distance between the fund's ideal point and the points representing the Yea and Nay outcomes, and a stochastic component.

$$U_{ijY} = u_{ijY} + \varepsilon_{ijY}$$

$$U_{ijN} = u_{ijN} + \varepsilon_{ijN}$$

The probabilities of voting Yea (For) and Nay (Against) can therefore be expressed as

$$P(\text{Fund votes Yea}) = P(U_{ijY} > U_{ijN}) = P(e_{ijN} - e_{ijY} < u_{ijY} - u_{ijN})$$

$$P(\text{Fund votes Nay}) = P(U_{ijY} < U_{ijN}) = P(e_{ijN} - e_{ijY} > u_{ijY} - u_{ijN})$$

$$\text{s.t. } P(\text{Yea}) + P(\text{Nay}) = 1$$

If we assume that the error difference is logit distributed we get that the probability of voting yea is given by

$$P_{ijy} = P(U_{ijy} > U_{ijn}) = P(\varepsilon_{ijn} - \varepsilon_{ijy} < u_{ijy} - u_{ijn})$$
$$= \int_{-\infty}^{u_{ijn} - u_{ijy}} \frac{e^{-z}}{(1 + e^{-z})^2}\, dz = \frac{e^{u_{ijy}}}{e^{u_{ijy}} + e^{u_{ijn}}}.$$

Given the matrix of observed vote choices for each of the funds, W-NOMINATE estimates the combination of parameters for fund ideal points and proposal outcomes that maximizes the joint probability of the observed choices.

$$L = \prod_{i=1}^{p} \prod_{j=1}^{q} \prod_{\tau=1}^{2} P_{ij\tau}^{C_{ij\tau}}$$

Where p is the number of funds and q the number of proposals, and s the number of dimensions, P_{ijt} is the probability of voting for the choice t and $C_{ijt}=1$ if the fund's actual choice (For/Against) is τ.

$$L = \sum_{i=1}^{p} \sum_{j=1}^{q} \sum_{\tau=1}^{2} C_{ij\tau} \ln P_{ij\tau}.$$

The likelihood function to be optimized is a continuous distribution over ps+2qs+s hyperplanes. Estimation is started by computing the agreement scores of all voters. The next step consists in introducing a distance function by subtracting the agreement scores from 1 and squaring the difference. One then obtains a matrix of squared distances. The third step is a normalization: Double-center the matrix of squared distances by subtracting the row and column means of the matrix of squared distances, adding the matrix mean and dividing by -2.

Through this normalization one obtains a cross product matrix of voter coordinates (see Poole, 2005). Finally, a further normalization is to take the square root of the diagonal elements of the double-centered matrix and divide through the corresponding column of the double-centered matrix by this square root. One then obtains voter coordinates lying between -1 and +1. These coordinates are the starting values for the W-NOMINATE estimation.

In terms of interpreting the distances between investors, the ideology positions are scales, which should be interpreted similarly to temperature scales. The crucial features are the investors' order along the relevant dimension, as well as their relative distance. Like in the case of the Fahrenheit scale, both the ordering and the difference between two temperatures have a specific meaning, up to a transformation: we can always take the ordering and the distances and map them into a new scale, say the Celsius temperature scale.

The coordinates that best "fit" the underlying spatial model are then estimated iteratively by constrained maximum likelihood. The constraint is that ideal points of each voter, x_i are in the interval [-1, +1] in one dimension and the unit circle in two. Each global iteration alternates between estimating the proposal outcomes conditional on the voter ideal points, then the ideal points conditional on the proposal outcomes, and finally the weighting parameters β and w.

The parametric assumptions underlying W-NOMINATE are that the distribution of the utility difference between the Yea and Nay outcomes for voter *i* on proposal *j* is logit distributed with a fixed variance. The parameter β weights voter spatial preferences relative to the random shocks. For higher β, voter choices are more driven by spatial preferences. In two dimensions, there is an additional parameter, w, that weights the dimensions.

(see Poole and Rosenthal, 1997, pages 234-238, for a complete development of the model).

There are other approaches to spatial scaling, in particular the Bayesian estimation approach of Clinton, Jackman and Rivers (2004) (besides the difference in estimation method, Clinton et al. also assume that voters' utility functions are quadratic), the A-NOMINATE MCMC-based approach of Carroll, Lewis, Lo, Poole and Rosenthal (2013), which nests both the quadratic and Gaussian utility models, and the non-parametric Optimal Classification (OC) approach of Poole (1997).

None of these methods/models have clear advantages over the others. To check the robustness of our results based on the W-NOMINATE approach, we have also run OC. We find that the ideal point estimates and the classification accuracy of the different models are very similar. The correlation between the W-NOMINATE and the OC estimates is 0.769

These scaling and estimation methods powerfully organize the voting data; they reflect the common force of ideology in determining how institutional investors vote, by revealing their relative ideological positions along one or two dimensions[9]. They go further than the findings of Matvos and Ostrovsky (2010) that there are systematic differences in how institutional investors vote and reveal the pattern of differences across institutional investors. The pattern of these differences across investors is not obviously apparent a priori. It is therefore not possible to capture this pattern through fixed effects along one or more dimensions that are determined a priori.

As much as the NOMINATE scaling approach reveals voters' ideological positions, it remains silent on where ideology comes from. It identifies how voters' ideal points are located relative to each other based on their past votes, but it does not per se make any substantive interpretation of their ideology. The choice of polarity, who lies more on the left and who more on the right, is arbitrary, just as the color red for republicans and blue for democrats is arbitrary. We could have flipped the polarity so that an ideal point on the left would appear on the right, as one could easily flip the colors red and blue for republicans and democrats.

Still, the broader socio-economic context, the content of the proposals, and the nature of the disagreements between shareholders suggest that one choice of polarity is more natural than another. As Keith Poole (2005) succinctly put it in the introduction to *Spatial Models of Parliamentary Voting*: "It is the researcher's understanding of the theory about the picture that gives the picture meaning. Without this understanding a person viewing the picture would see just a bunch of dots."

[9] These scaling methods have been widely applied in many other contexts than voting. For example, they have been used in educational testing to estimate ability (Rasch, 1961), in marketing to analyze consumer choices (Bechtel, 1985) and in psychology and health science (see e.g. Bond and Fox, 2013).

Matvos and Ostrovsky (2010) find that there are not only systematic differences in how mutual funds vote in director elections, but also that their voting behavior is strategic. They argue that funds are generally reluctant to oppose management and therefore tend to vote with management unless they expect other funds to vote against. They find peer effects in mutual fund voting behavior, which they interpret as evidence of strategic voting taking the form of "safety in numbers" in opposing management. Their findings raise the natural question of how estimated ideal points should be interpreted if there is strategic voting. Under systematic strategic voting of the form described by Matvos and Ostrovsky (2010) the estimated ideal points will no longer reflect the true underlying ideal point. To the extent that mutual funds vote more often with management for strategic reasons their ideal points will be closer to management's position, but the relative position of ideal points should not be affected unless some funds are more strategic than others. Another possibility is that mutual funds may vote strategically with the intent of signaling their ideology to asset owners. There could be mutual funds that go out of their way to oppose management as a way of communicating their investment philosophy to asset owners. The estimated ideal points of these funds would then be further away from management than their true ideal point. In sum, W-NOMINATE infers voters' ideal points based on how they vote, whether the votes are sincere or strategic. To the extent that there is strategic voting the estimated ideal points do not necessarily reflect intrinsic preferences but may also reflect the ideology voters intend to communicate. This is true for roll-call voting in Congress as well as for proxy voting by institutional investors.

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. 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 proposal-fund observations, all the funds belonging to the same family vote the same way.

4. Institutional Investors Ideal Points in One- and Two- Dimensional Spaces

We begin our discussion of the substantive results by describing institutional investors positions in one- and two- dimensional spaces.

We estimate one- and two- dimensional models. For both, we check that our results are not unduly driven by director elections, which represent 77.7% of our sample. First, we run W-NOMINATE in one dimension on shareholder and management proposals, excluding director elections. Second, we estimate the two-dimensional model on the same sample. Third and fourth, we augment the sample with director elections and run W-NOMINATE in one and two dimensions. We find that 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.

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 at least 20 voters. As can be seen, the modal proposal received more than 60 votes, and a significant number of proposals have more than 100 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. 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. The reason why is that social issues might be most concerning at large firms, or more likely, that targeting large firms is the most efficient way to achieve social concerns with a limited budget of money and effort.[10] Governance proposals,

[10] We thank the referee for pointing this out.

represented by the orange bars, are next with a median number of voters above 100, followed by Say on Pay proposals which have a median of around 60 voters, and financial and investment policy proposals, which have a median of around 50 voters.

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 both mutual fund families and public pension funds. The top-left panel displays the ideal points of all institutions, and the other three panels separately plot the ideal points of mutual funds (white bars) and the public pension funds (blue bars). The one-dimensional W-NOMINATE model constrains ideal points to the interval [-1, +1]. The arbitrary (and inconsequential) polarity of the dimension 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 and Calvert on the 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." Calvert states on its website "With roots in responsible investing back to 1982, the firm seeks to generate favorable investment returns for clients by allocation capital consistent with environmental, social and governance best practices […]". 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." Panel A of 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.

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.[11] There is a caveat to unimodality. Fifty-one funds have nearly the same ideal point as ISS while forty investors have ideal points similar to that of Glass Lewis. These similarities correspond to the distinct peaks in the panels of Figure 2A. On the one hand, the proxy advisors might be actively coordinating the votes of investors. On the other, some institutional investors may make their voting choices in a cursory fashion and use the recommendations of the advisors to fulfill their fiduciary responsibilities. Interestingly, ISS's ideology is left of Glass Lewis. A significant fraction of both mutual funds 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.[12] 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.

Finally, a fund that almost always voted with management would be located on the far-right. The peak at the far right distribution of the panels shows the extent to which there are pro-management investors. Note from the remaining three panels of Figure 2A that none of these investors are pension funds.

[11] The peaks on the left and right ends arise partly through the [-1,+1] constraint in W-NOMINATE.

[12] 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

Indeed, 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 last 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- and bottom- right panels show, public pension funds are more to the left than mutual funds. In particular, all public pension funds, with the exception of Indiana Teachers, are to the left of Blackrock. CalPERS is between ISS and Glass Lewis, and the most far left public pension funds are the AFSCME Employee Pension Plan, the Colorado Police & Fire Pension Fund, labeled in the panel, and the State Universities Retirement System of Illinois (SURS), which are listed in Table 3. This pattern is more accentuated if we exclude those pension funds that let their investment managers decide how to vote. The bottom-right panel in Fig. 2.A shows, among others, the breakdown of the West Virginia pension funds based on their investment managers and indicates that the ideal points vary from the far left for the votes cast by Intech to the far right for the votes cast by State Street Global Advisors (SSGA). Indeed, while Intech is not among the funds in our sample, the ideal points of West Virginia SSGA fund and SSGA are very close to each other, at 0.34 and 0.38, respectively.[13]

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 investors.

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.[14] Most of the large institutions, such as J.P. Morgan, Goldman Sachs, Fidelity, Prudential (not reported) tend to be center-right, with the exception of PIMCO, Nuveen, which are center-left and follow ISS recommendations in most of their

[13] The two-dimension estimates are even closer: 0.31 and 0.33 for the first dimension, and -0.04 and -0.08 for the second dimension, respectively.

[14] The more moderate position of CalPERS could reflect the more moderate political preferences and a higher focus on financial returns of public employees in California (see John Myers "CalPERS board president is ousted in election, losing to Corona police officer" *LA Times* October 4, 2018).

votes. Consistent with the reputations of their CEOs, Grantham, Mayo and Van Otterloo, LLC is on the left, while GAMCO is furthest to the right of all the prominent fund families, as can be seen in the bottom-left panel. Among the smaller funds, Wisdomtree Asset Management and Pax World Management appear to be on the far-left as well, further confirming our interpretation of the dimension as socially- vs. money- oriented investment philosophies.

Results of the two-dimensional model without director elections. Consider next the estimation results of the two-dimensional model, excluding director elections. Note first that 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.B. While the location of the ideal points of investors along the first dimension is similar to their locations in the one-dimensional model, 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. Note in particular that the second dimension pits Glass-Lewis and its followers against ISS' more management friendly stance on non-director proposals.

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. Most proposals represent director elections. Moreover, the director elections have many more investors voting, 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.C 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 director elections. Consider next the estimation results of the two-dimensional model depicted in Figure 2.D. 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.

The panels only label the positions of some of the pension funds. It is interesting to see that pension funds tend to be both the more socially minded and more management disciplinarians. Indeed, the top-left 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 top-right panel, their differences are such that the more socially responsible among the large funds, like Nuveen, PIMCO, DFA, and Grantham, Mayo, are more management-friendly, while Blackrock, Vanguard and GAMCO are more profit-oriented and more management-disciplinarian, although, with the exclusion on Blackrock and Capital Research, not by a large extent. Among the smaller mutual funds on the far-left, Calvert, Domini and Pax World Management, appear, like the pension funds, to be socially-oriented and management-disciplinarian, while Wisdom Tree Investments and a few others reported in Panel B of Table 3, while socially-oriented, appear to be very management-friendly.

The addition of director elections reduces the differences of investors along the second dimension, as can be seen by comparing the three panels in Figure 2.B and 2.D. 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 them further in a management-disciplinarian direction. Interestingly, the position of ISS and the funds following it also moves toward a more management-disciplinarian direction once we add director elections, confirming that negative votes on directors are one of the main forms in which institutional shareholders express their dissent with management and board decisions.

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 Panel A of Table 2. Note first that the correlation between the institutional investors' first dimension positions in the one and two-dimension model with no director elections is extremely high, at 0.9933, confirming that while adding a second dimension highlights another important driver of institutional investor voting it does not change the positions with respect to the first such driver. Second, 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 0.6291. However, when we add a second dimension in the data that includes 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 0.8792! 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.

Finally, measures of fit for the models above are reported in Panel B of Table 2. The overall fit of the W-NOMINATE estimation is given by four measures, the percentage of correctly classified votes, the aggregate proportional reduction in error (APRE), the geometric mean probability (GMP), and the signal-to-noise ratio β. An observed vote is a classification error if its predicted probability is less than 0.5. The classification percentage is calculated as 100*(Correct Votes)/All Votes). Panel B of Table 2 shows that percentage of correctly classified votes is quite high across all for models, i.e. whether we include or exclude director elections, we correctly classify over 88% of the votes, the highest being the one from the two dimensions WNOMINATE with director elections, which is equal to 92.28%. The APRE is defined as: 1 – (Total Classification Errors)/(Total Votes on Minority Side). This measure allows us to see how much W-NOMINATE improves on minority voting as a benchmark. The intuition is the following: suppose the actual vote on a given proposal was 80% Yea and

20% Nay. Without any further information we can always classify every voter as a Yea and be right 80% of the times. If there is useful information in the spatial model, we expect it to classify with less than 20% errors on this specific proposal. The APRE aggregates the proportional reduction in error (PRE) across proposals, or group of proposals. For each vote, this measure is 1 if there are no classification errors, it is 0 if the number of spatial model errors equals the minority vote, and it is less than 0 if the model does worse than assigning everyone the majority choice. In our estimation, the APREs of 0.339 and 0.262 (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, particularly on director votes. They increase to 0.463 and 0.406, respectively, when we add a second dimension. The geometric mean probability (GMP) is the exponential of the average log-likelihood, i.e. GMP=exp[log-likelihood of all observed choices/N]. Since the likelihood of an observed choice is the probability the model assigns to that choice and all choices are assumed to be independent, the likelihood of all the choices is the product of all likelihood. The GMP penalizes models that assign low probabilities to observed choices. Thus, the model doesn't simply minimize the number of funds incorrectly classified, but rather, roughly speaking, it minimizes the errors weighted by the distance to the midpoint for any given proposal, since a classification error for an extremist is more serious than one for a fund that is close to the midpoint and thus close to indifferent between the two outcomes it is voting on. The GMPs for our four models are reported in the fifth column of Panel B of Table 2. While all the values are relatively high, the best fit according to this measure is the two-dimensional model with director elections for which the GMP is 0.819. Finally, the signal to noise ratio, β, measures the relative importance of the spatial component and is proportional to the variance of the error distribution. In contrast to the APREs, β, ranging between 18.1 to 19, is larger than those found for Congress. The large βs show that the ideological component of voting is large relative to the random error components.

In the remainder of this section we further validate our interpretation of the first and second spatial dimensions by looking at the identities of the extremist funds.

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. The left-positioned funds on the first dimension are pension funds and many mutual fund families with ESG objectives in their investment philosophies, with the exception of Wisdomtree Asset Management, which focuses on ETFs. The right-positioned ones tend to be funds focusing on tax management and capital appreciation. The management-disciplinarians are Glass Lewis followed by some of the large pension funds and some small mutual fund families, while the management-friendly funds are Wisdomtree Asset Management and other small fund families.

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-NOMINATE[15]. Those in Table 3 range from 0.02 to 0.15, 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. One possible reason for this difference could be the fact that right extremists are small funds that vote less often and are therefore less precisely estimated. An alternative, albeit more speculative, explanation is that while the funds on the left invest with purpose and there is less debate on what that means, the funds on the right are exclusively focused on return maximization, and there is more disagreement on what that entails.

[15] 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.

The Influence of Proxy Adviser Recommendations. Which funds tend to mostly follow the recommendations of one of the two proxy advisers? We report the identity of these investors in Table 4. 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. It is worth noting that in the two-dimensional model all the ISS followers are mutual funds, while three of the ten closest followers of Glass Lewis are pension funds.

5. Proposal Midpoints and Substantive Issues dividing Institutional Investors

In this section, we turn to the analysis of the substance of proposals dividing the institutional investors, and the locations of the midpoints separating those that vote "Yes" and "No" on any given proposal. We begin by reporting the midpoints along the first dimension and then turn to the midpoints on the second dimension and the angles of the cutting lines, which indicate whether a proposal separates voters mainly along the first or second dimension, and the extent to which shareholders trade off issues along the two dimensions.

Figure 3 reports the distribution of proposal midpoints along the first dimension, for all proposals and by proposal type. Recall that 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 proposal.

Unlike Congress, where the midpoints are frequently 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, and they are not informative, as they only tell us that all funds are predicted to vote identically on the given proposal. An unconstrained midpoint is on the left if, for that proposal, the investors on the left are predicted to vote against the center and the right, and vice-versa for proposal midpoints at the right end. For management proposals and proposals which management recommends a vote "for", a midpoint close to -1 means that nearly all shareholders support the proposal, while a midpoint close to +1 means that nearly all oppose it. The opposite is true for proposals opposed by management. The top-left graph in Figure 3 indeed shows that the fraction of proposals at -1

is much higher than that at +1, and that the overwhelming majority of proposals have midpoints on the left. As the top-right graph in Figure 3 reveals, there is however substantial opposition to management on governance proposals. The opposition to Say on Pay and other compensation proposals on the other hand is concentrated in a few proposals, as the bottom-left and right graphs highlight. Figure 3 also shows that there is considerable shareholder support in the election of directors. Of course, even a small fraction of votes against a director can be interpreted as a rebuke. The mid-points for social proposals have a bi-modal distribution, indicating that some social proposals face strong opposition. The mid-points for Financial and Investment Policy proposals are also bimodal with nearly half the proposals being essentially unopposed.[16]

Figure 4 shows the distribution of midpoints broken down by sponsor type. Not surprisingly, management proposals have mid-points mostly to the left reflecting the fact that on average management proposals are supported by lop-sided majorities. Still, there are a few management proposals that garner substantial opposition. As for shareholder proposals, it is noteworthy the mid-point distribution is bi-modal, indicating that a significant fraction of shareholder proposals garner substantial support.

We turn next to the distribution of midpoints along the second dimension displayed in Figures 5 and 6. Note first that +1 refers to an extreme management disciplinarian and -1 to the opposite, a management-friendly stance. Interestingly, along the second-dimension midpoints are all in the interior with a mode in the middle, reflecting that shareholders are more divided along the second dimension. In other words, the midpoint distribution along the second dimension resembles more the distributions seen in Congress for roll call votes. Notable exceptions are the Say on Pay votes, where in a significant fraction of cases the midpoints are below zero, meaning that for those proposals the center voted with Glass Lewis and the management-disciplinarians, and the Social proposals where on the contrary Glass Lewis and

[16] The unopposed proposals in this category mostly comprise the proposals on routine matters, such as adjourning the meeting.

the management-disciplinarians are isolated against the center and the management-friendly funds.

Finally, the angle of the cutting lines in two dimensions. Recall that the cutting line is the two-dimensional generalization of the midpoint in one dimension. The angle the line makes with the first dimension reflects how voters trade off the two dimensions on each proposal. The angles vary between -90 degrees to +90 degrees. An angle of 0 or close to 0 is entirely a second-dimension issue, and angles of -90 or +90 degrees are entirely first dimension issues. Figure 7 provides a few examples of proposals cutting lines. The top-left graph plots the ideal points of all the funds voting on the Citigroup Say on Pay vote held on April 17th 2012 and shows the cutting line separating the funds predicted to vote "for" and "against", while the top-right one plots the funds that were incorrectly classified. This advisory vote on executive compensation was very controversial at the time. Both Glass Lewis and ISS recommended to vote against the $15 million pay package for CEO Vikram Pandit. Indeed, 55% of the shareholders indeed voted against the package. Pandit's pay was reduced, and he resigned in October 2012.[17] The top-left pane of Figure 7 shows investors' ideal points based on all their votes in the sample and the cutting line for this specific proposal, separating those that based on their ideology are predicted to vote for from those predicted to vote against. The slope of the cutting line is 76 degree, indicating that funds separated mainly along the first dimension on this specific issue. The top-right pane of Figure 7 shows those investors that voted differently than predicted by the model. Most of them are close to the cutting line, and they would be close to indifferent between voting "for" and "against". Among them are Vanguard, Blackrock and the West Virginia - SSGA fund, which are predicted to lean toward voting "against", but actually voted in favor of the package. Notable exception is the Massachusetts pension fund. Although the fund is quite distant from the cutting line, it voted in support of the proposal when an against vote was predicted by the model.

[17] See Jessica Silver Greenberg and Nelson. D. Schwartz, "Citigroup's Chief Rebuffed on Pay by Shareholders", *New York Times,,* April 19, 2012, p. A1,and Donald Griffin and Bradley Keenan, "Citigroup Board Said to Oust Pandit After Multiple Setbacks,, Oct. 16, 2012. http://www.bloomberg.com/news/2012-10-16/citigroup-board-said-to-oust-vikram-pandit-over-poor-execution.html.

The next two panes in Figure 7 illustrate another mainly first-dimensional vote, Amazon "Shareholder proposal regarding report on climate change", held on May 24th 2012. In this case Glass Lewis recommends against while ISS recommends for. Among the misclassified investors are Vanguard and CalPERS, which vote for the proposal despite their ideal points prediciting they wouldn't, and CalSTRS for which the opposite is true. With few exceptions, also in this case the incorrectly classified funds are close to the cutting line.

Finally, the last two panes in Figure 7 illustrate a mainly second-dimension vote, the election of J. Michael Losch to the board of AON, held on May 18th 2012, for which Glass Lewis recommended against and ISS recommended for. In this case the cutting line angle is 7 degrees, and, unlike the previous two votes, the funds separate along the second dimension and the management disciplinarian funds both on the left and the right vote against the management friendly ones. One notable exception is Blackrock, which voted in a more management disciplinarian way than predicted by the model.

Figure 8 reports the distribution of the cutting line angles for all proposals. The graphs show that most of the proposals are either purely first dimension issues or a mix of the two dimensions, but with a greater weight on the first dimension, which confirms our other findings that the first dimension is primal for investor ideology. Interestingly, the few proposals that give more weight to the second dimension tend to be in the Governance and Say on Pay categories, although a good number of director proposals also have a strong second dimension.

6. Proposal Midpoints, Cutting Line Angles, and Firm and Director Characteristics

In this section we explore how the midpoints and the cutting line angles vary with firm, director, and sponsor characteristics. This provides additional insights on the substantive issues that divide shareholders, which characteristics of the proposals lead to an extreme left with other voters split, and which characteristics split shareholders in the middle.

Midpoints and Firm Characteristics

Consider first firm characteristics. In Table 5 we report OLS regressions of midpoints along the first and second dimensions respectively as a function of the following main firm characteristics: size, market capitalization, book-to-market ratio, leverage, ROA, past year total return, dividend yield, Amihud liquidity measure, institutional ownership, various corporate governance characteristics, sponsor characteristics, and proposal characteristics. As for the midpoint distributions shown in Figures 3 to 6, a negative coefficient means that all else equal the midpoint shifts to the left and reflects a broader center right coalition versus a smaller left coalition of voters. For example, in column (1) the coefficient on past year total returns is -0.0319 and statistically significant at the 5% level, reflecting the fact that higher past returns result in smaller and more extreme left coalitions. Alternatively, if returns are lower this may increase shareholder dissatisfaction and lead to larger coalitions opposed to management.

Other variables with similar robust qualitative effect are governance variables such as board size and the fraction of independent directors, whereas poison pills and unequal voting rights have the opposite effect, suggesting that firms with stronger minority shareholder rights tend to be firms with a broader shareholder support of management.

Consistent with Figures 4 and 6, the coefficient on Shareholder-Sponsored Proposal is positive and highly significant, meaning that voting on shareholder proposals is less lop-sided and less favorable to management. Similarly, the coefficients on director election, governance, social, and compensation proposals in column (5) are positive, whereas shareholder sponsored governance proposals have a negative coefficient. Columns (6) to (10) report regressions of the second-dimension midpoints on firm, sponsor and proposal characteristics. Here the most striking new observation is the effect of ROA, with higher ROA associated with greater support for the management-disciplinarian funds. Similarly, the presence of a golden parachute, a poison pill, a classified board, a higher fraction of independent directors, a smaller board and higher institutional ownership, are associated with more negative midpoints, and a larger support for the management-disciplinarian approach.

Midpoints and Director Characteristics

How do midpoints on director elections vary with director characteristics? Table 6 reports OLS regressions of respectively first and second dimension midpoints as a function of the following main director characteristics: gender, age, independent director, number of meetings attended, financial expertise, number of outside public boards, and percent of controlling voting power. Remarkably, along the first dimension, female directors tend to garner broader support (the left coalition is smaller), whereas absentee directors (those that attended <75% of meetings) and inside directors, with a higher controlling voting power, are opposed by the center and left voters. Further, directors classified as independent or employee directors have midpoints shifted to the left and garner more support than other directors with otherwise similar characteristics. By contrast, age, financial expertise, and number of outside boards the director sits on are not statistically significantly related to first-dimension midpoint positions.

Finally, the results of second-dimension midpoint OLS regressions on director characteristics, reported in the last two columns of Table 6, show that, all else equal, higher age, financial expertise and lack of independence shift the midpoint up isolating the management disciplinarians from the rest of the funds. The number of outside boards the director sits on also seems to shift the midpoint up, although the effect vanishes once firm characteristics are included in the regression.

Cutting Line Angles and Firm and Director Characteristics

Table 7 links the angle of the cutting lines more systematically to company, sponsor and proposal characteristics. The regressions in Table 7 take the cutting line angle as the dependent variable. Recall that a -45 degree angle separates the voter coalition on the North-East (management disciplinarians and more profit-oriented investors) against the South-West (governance-lax and more socially-oriented investors), and a +45 degree angle, separates a North-West coalition (management disciplinarians with socially oriented investors) against a South-East coalition (governance-lax and profit-oriented investors). The constant coefficient is large and positive, indicating that the North-West, South-East coalitions are the most common. It is interesting to note, however, that Shareholder-Sponsored Proposals tend to pit management disciplinarians and socially oriented investors against governance-lax and profit-

oriented investors. In contrast, shareholder coalitions in companies with a high fraction of independent directors tend to put management disciplinarians on the same side as profit-oriented investors. The same is true for Say on Pay proposals, director elections and social proposals.

Columns (6) to (10) take the absolute value of the cutting line angle as the dependent variable. This is the relevant variable to determine which of the two dimensions is most important. Again, the constant coefficient is positive and large, indicating that the first dimension is dominant.

7. Investor Ideology over Time

We have estimated investor ideology based on the votes they cast over one fiscal year. A natural question is whether ideologies are stable over time. This is, of course, a central question in political science and is the focus of the study by Poole and Rosenthal (2007) on the history of roll call voting in Congress. A systematic analysis of investor ideology over time is beyond the scope of this paper, but we are able to report one preliminary finding from ongoing research on this question. Figure 9 reports results based on mutual fund votes only, and compares the estimated ideal points in fiscal year 2016 with the ideal points in 2012. The 2012 ideal points are in orange, while those for 2016 are in blue. A first general observation is that there has been relatively large turnover and consolidation in the asset management industry over this period, with only 166 out of a total of 397 institutions present in both fiscal years. There were 53 institutions in 2012 that had disappeared by 2016, and 178 new institutions are in our data in 2016 that were not in our list of 2012 mutual fund families. A second general observation is that for a large fraction of institutions ideal points have not moved much from 2012 to 2016, providing a preliminary indication that ideology is stable over time.

Another analysis we conducted looks at ideal points over all years from fiscal year 2004 to 2016. Again, there is a fair amount of turnover, so that we only have 219 mutual fund families covering all these years. We found a high degree of stability along the first dimension, with a correlation coefficient between the estimates for the fiscal year 2012 and those for all years pooled of .8996, but more instability along the second dimension, as reflected in the lower

correlation coefficient of .6265. This is not entirely surprising and is consistent with the greater instability of the second dimension for roll call votes in Congress. We also performed a Procrustean analysis, which is reported in Panel B of Figure 9. As the figure reveals the ideal points for 2012 are in the middle of the distribution of ideal points for all years, and are highly correlated with them.

8. 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. Alternatively, there could be agreement about what compensation maximizes shareholder returns, but the left may be more 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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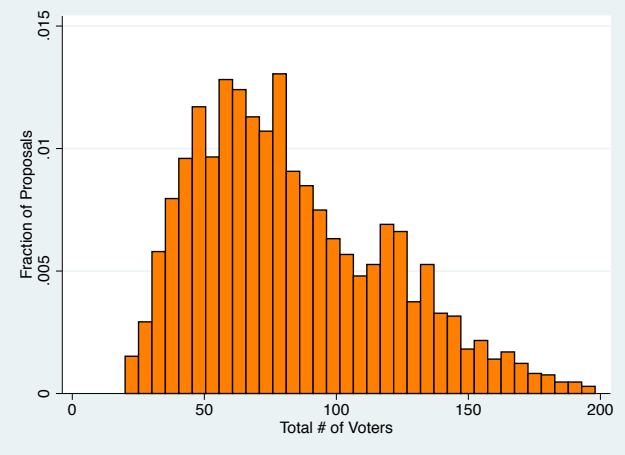
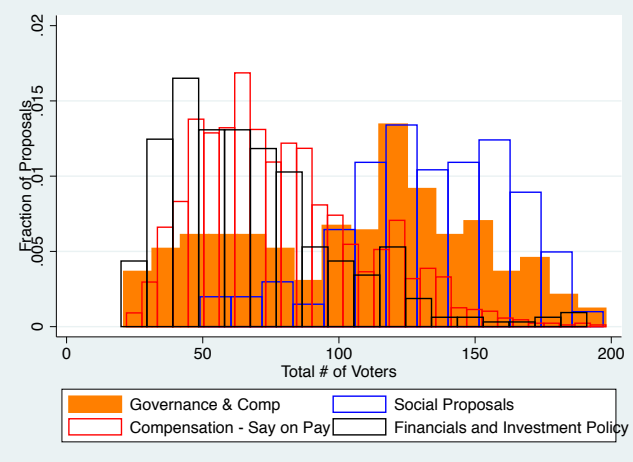
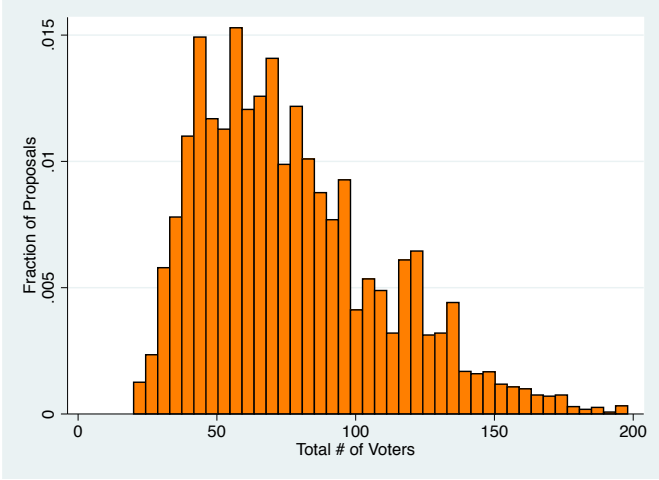
Figure 1: Distribution of Number of Voters on Proposals, Fiscal Year 2012.

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, Say on Pay Compensation proposals, the Social proposals, and the Financial and Investment Policy proposals separately. The bottom-left panel 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 comprise proposals voted on in the fiscal year 2012 for the Russell 3000 companies in our sample, and have been filtered to exclude institutions voting on less than 50 proposals, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the voters.







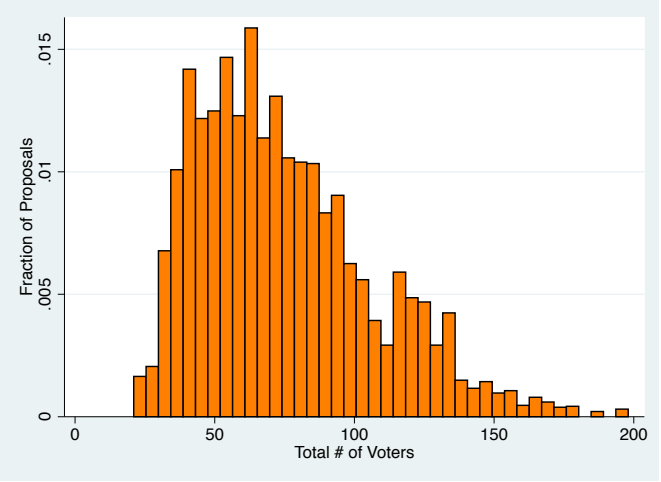
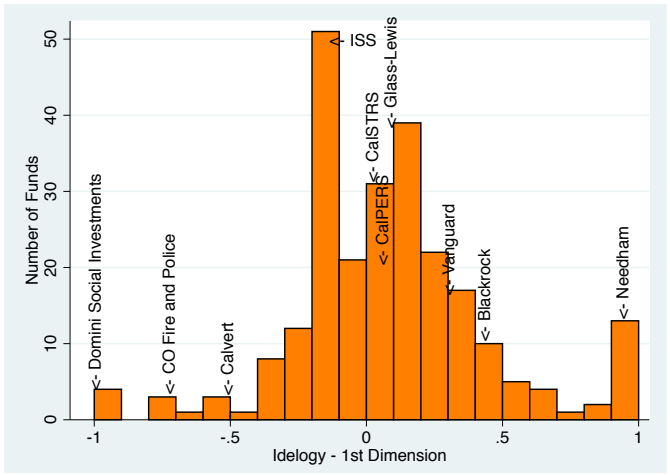
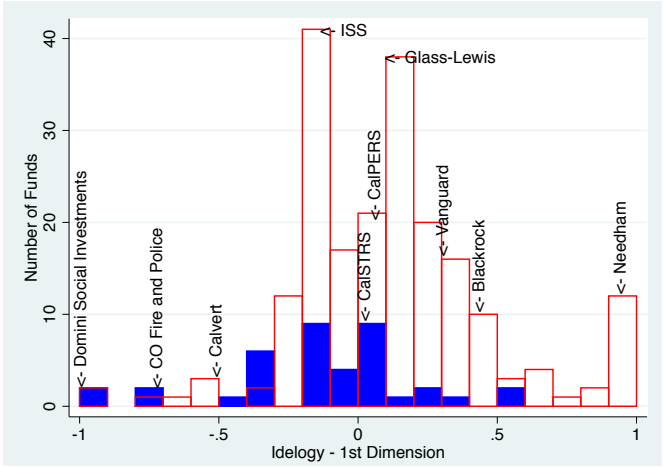
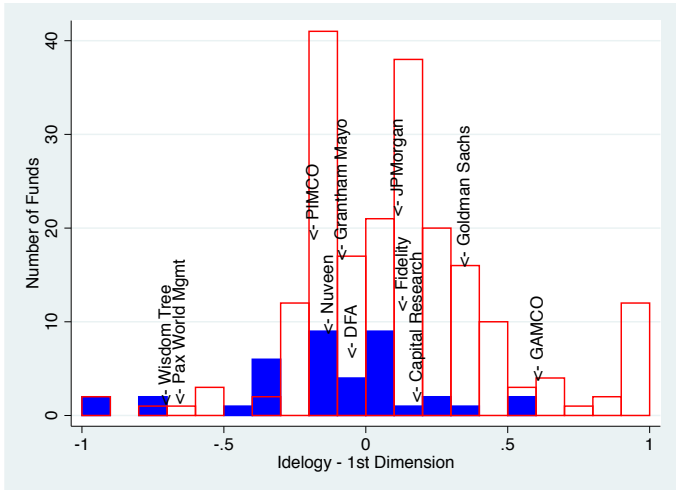


Figure 2.A: Ideal Points, One Dimension W-NOMINATE, excluding Director Elections

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, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the 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. They are identical except for labelling. 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.







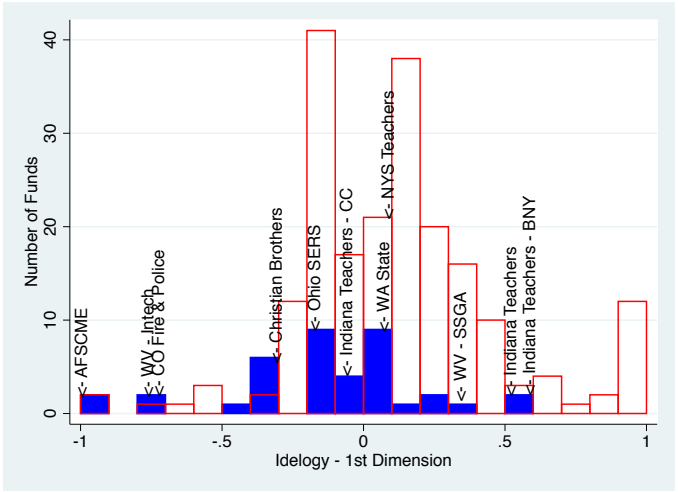
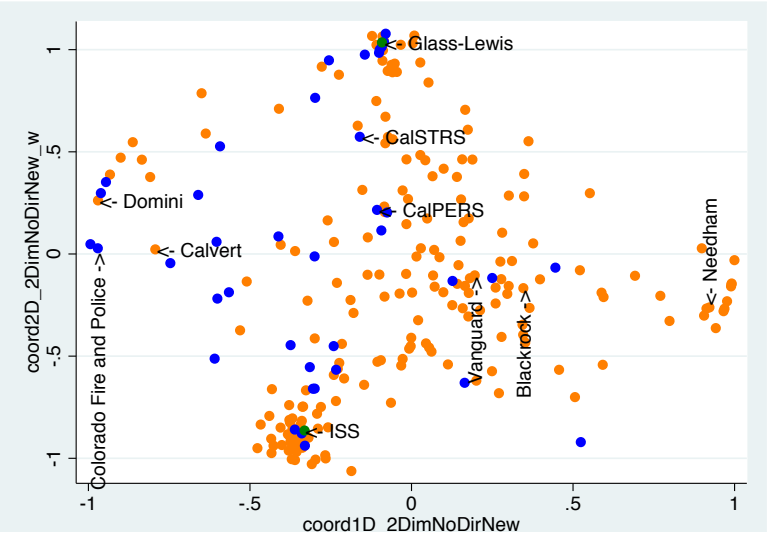
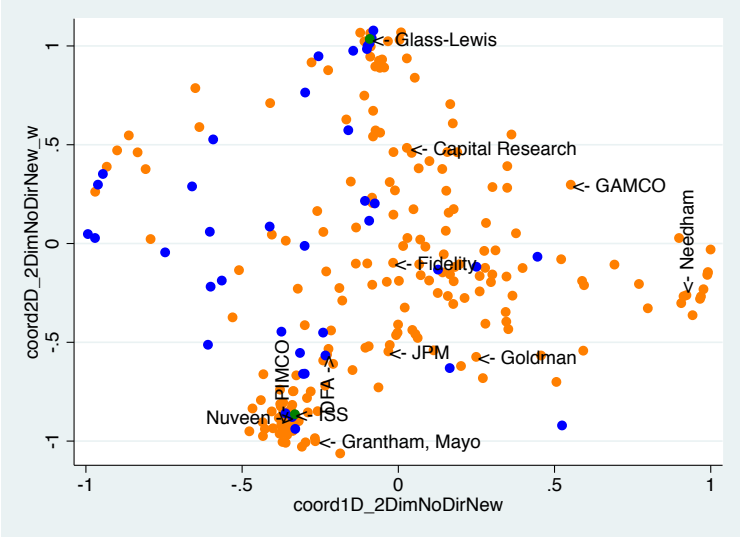


Figure 2.B: Ideal Points, Two Dimension W-NOMINATE, excluding Director Elections

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, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the 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.





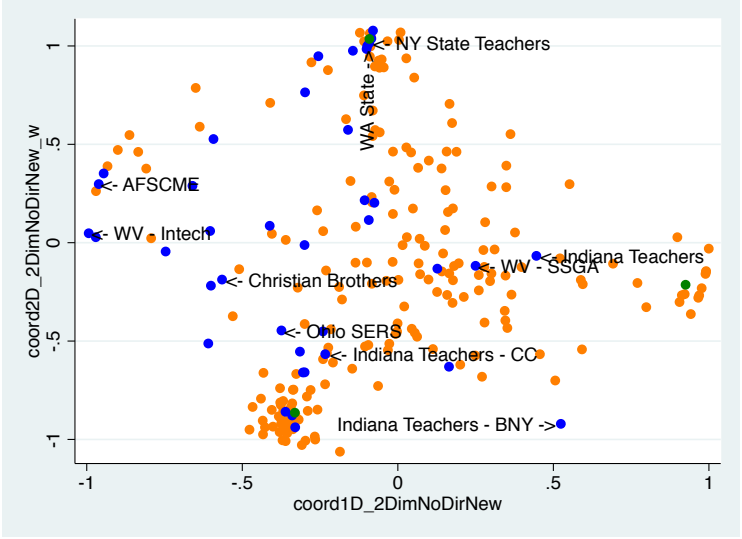
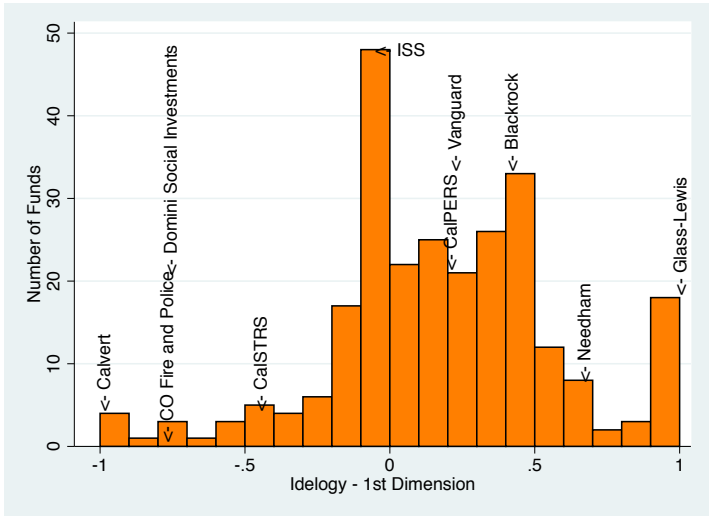
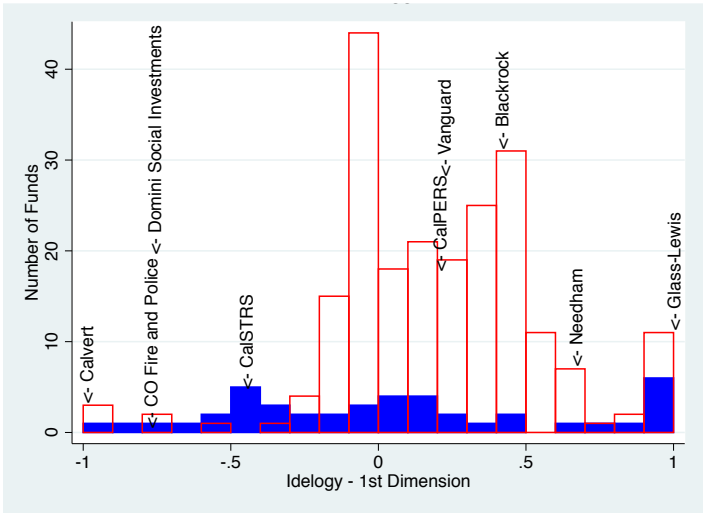
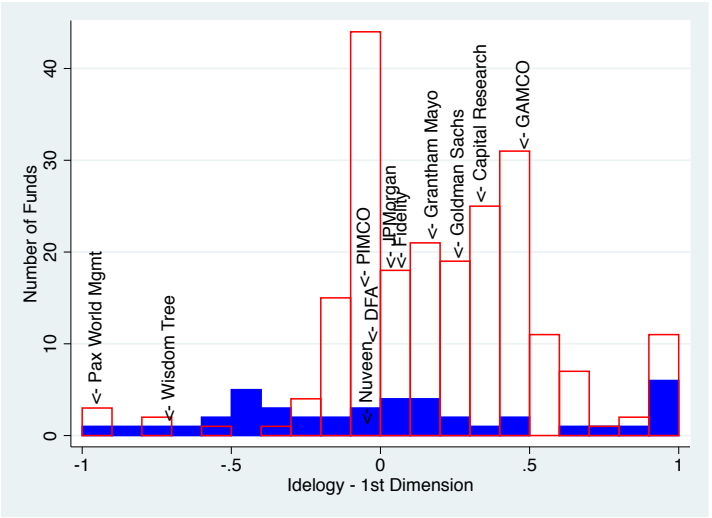


Figure 2.C: Ideal Points, One Dimension W-NOMINATE, including Director Elections

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, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the 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. They are identical except for labelling. 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.







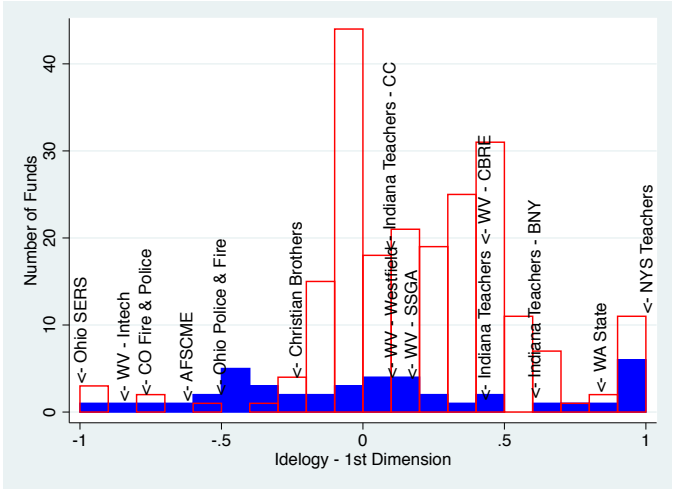
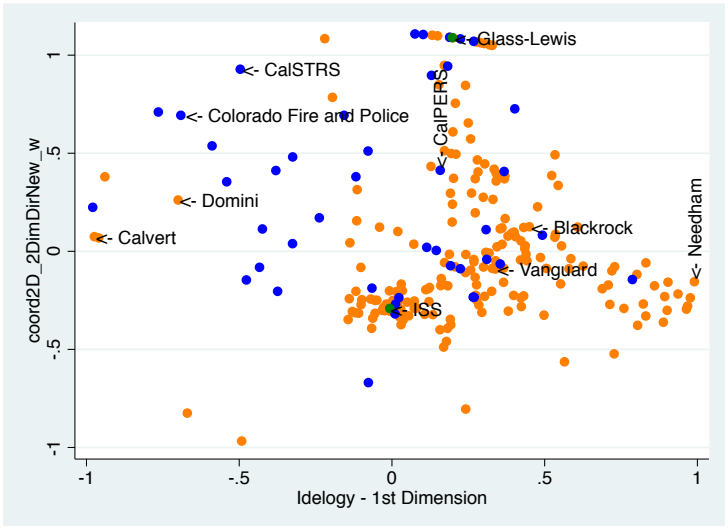
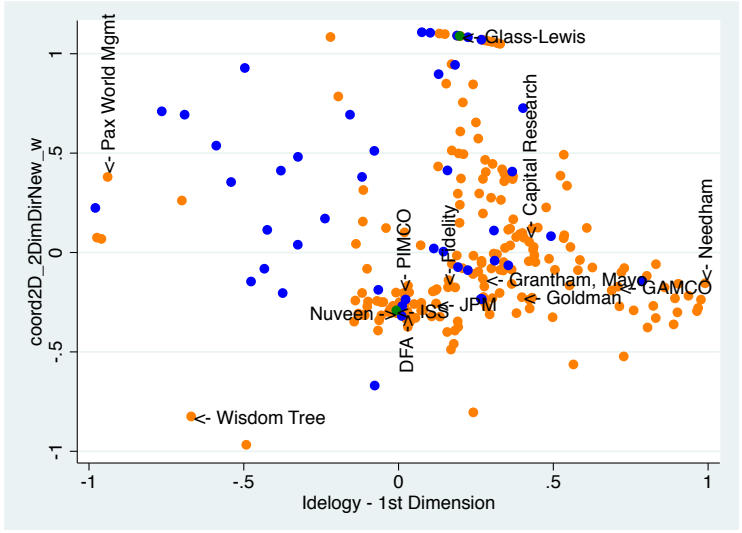


Figure 2.D: Ideal Points, Two Dimension W-NOMINATE, including Director Elections

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, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the 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.





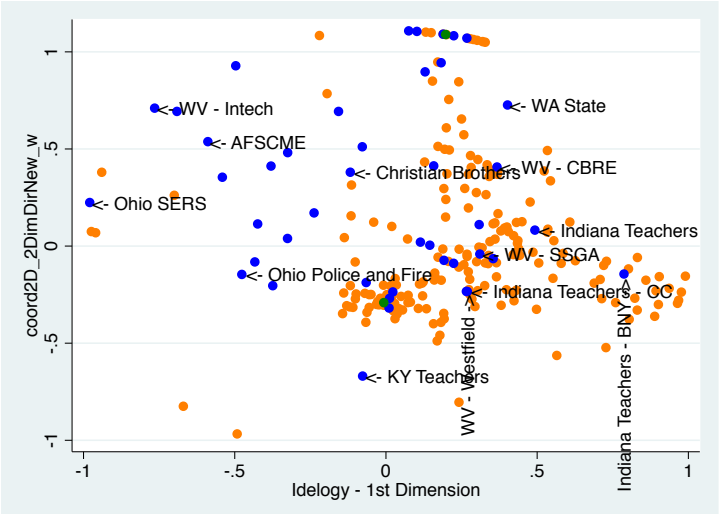
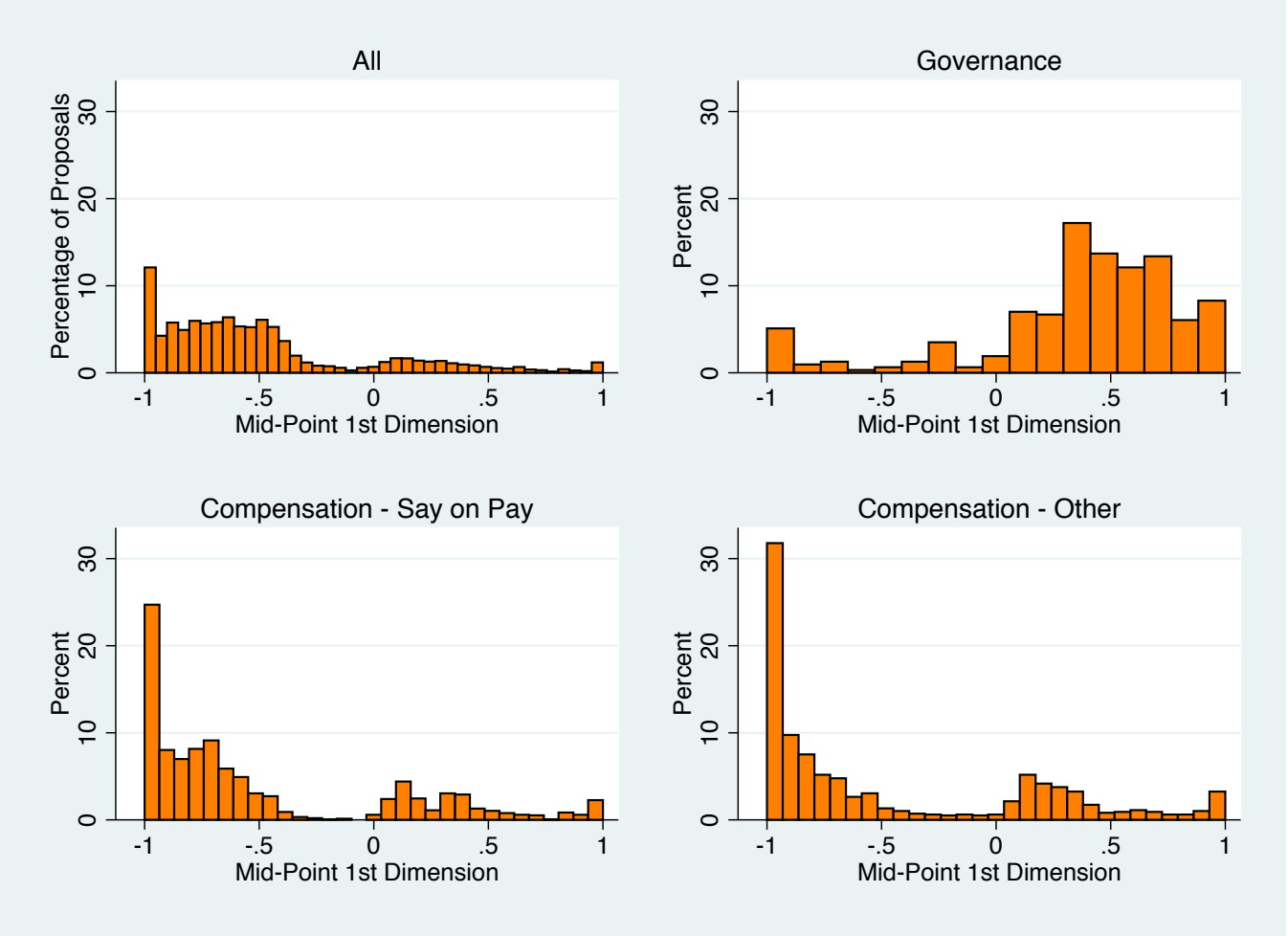


Figure 3: Distribution of Midpoints by Proposal Type, Two Dimensions W-NOMINATE, 1st Dimension.

This Figure plots the distribution of 1st Dimension 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, including director elections. The sample excludes institutions voting on less than 50 proposals, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the voters. The top-left Panel reports the distribution of the midpoints for all proposals, while the other Panels report the distribution of the Governance, Say on Pay and Other Compensation proposals, Director Elections, Social Proposals, and the Financial and Investment Policy proposals, respectively.



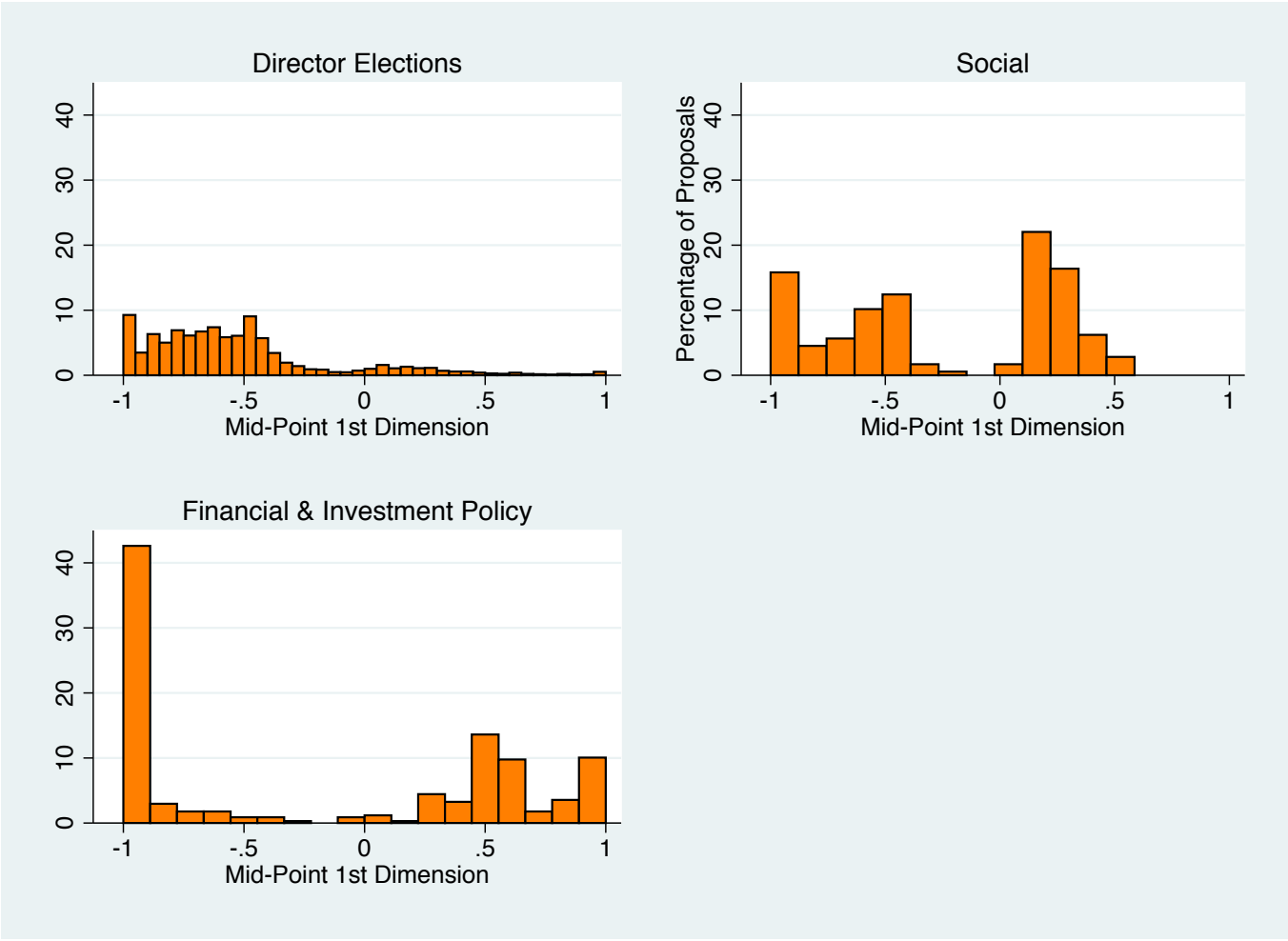

Director Elections
0
10
20
30
40
-1
-.5
0
.5
1
Mid-Point 1st Dimension
Social
Percentage of Proposals
0
10
20
30
40
-1
-.5
0
.5
1
Mid-Point 1st Dimension
Financial & Investment Policy
0
10
20
30
40
-1
-.5
0
.5
1
Mid-Point 1st Dimension

Figure 4: Distribution of Midpoints by Sponsor Type, Two Dimensions W-NOMINATE, 1st Dimension.

This Figure plots the distribution of 1st Dimension 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, including director elections. The sample excludes institutions voting on less than 50 proposals, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the voters. The top-left Panel reports the distribution of the midpoints for all proposals, while the other two Panels report the distribution of the Shareholder- and Management-Sponsored proposals, respectively.

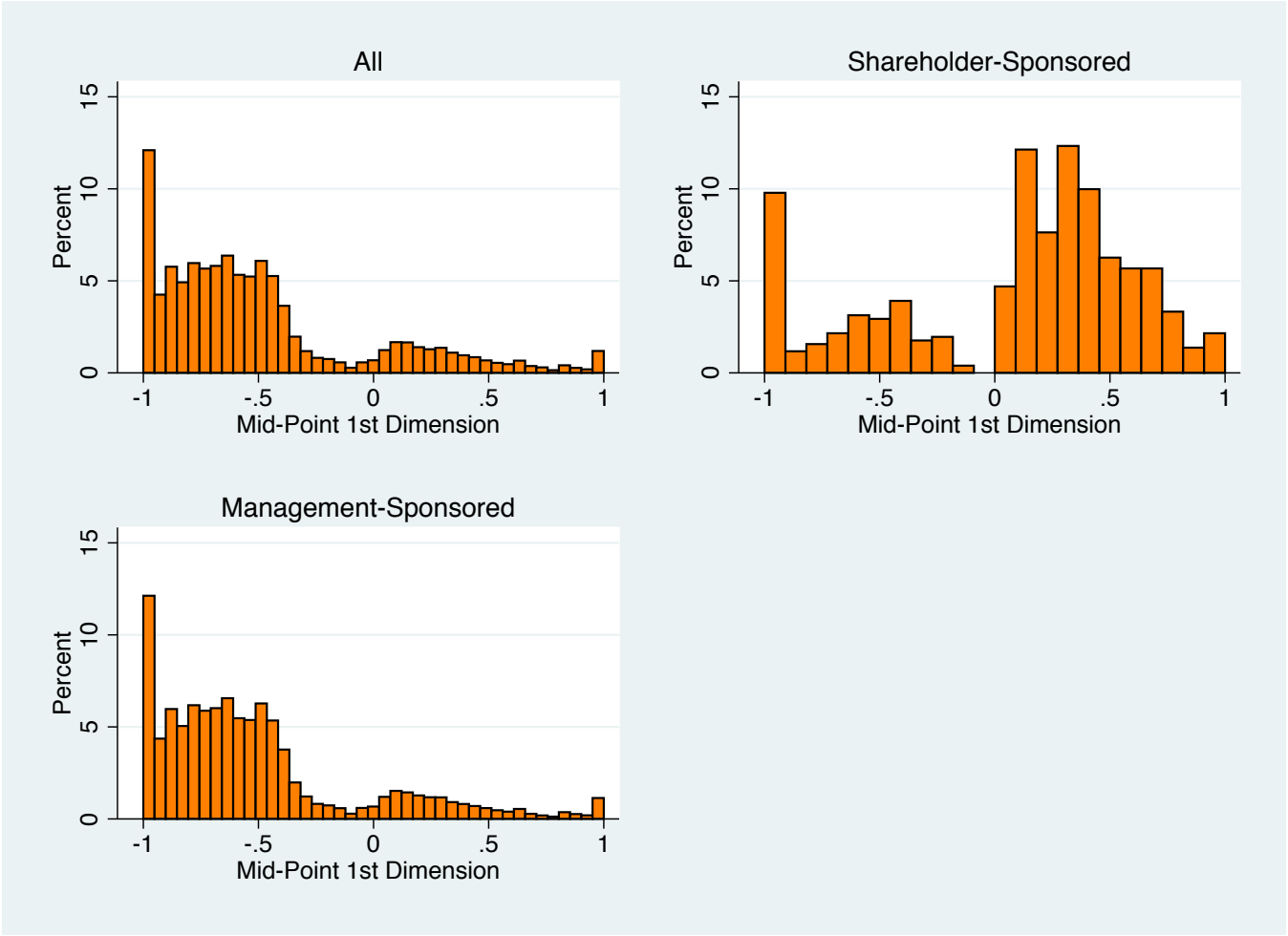
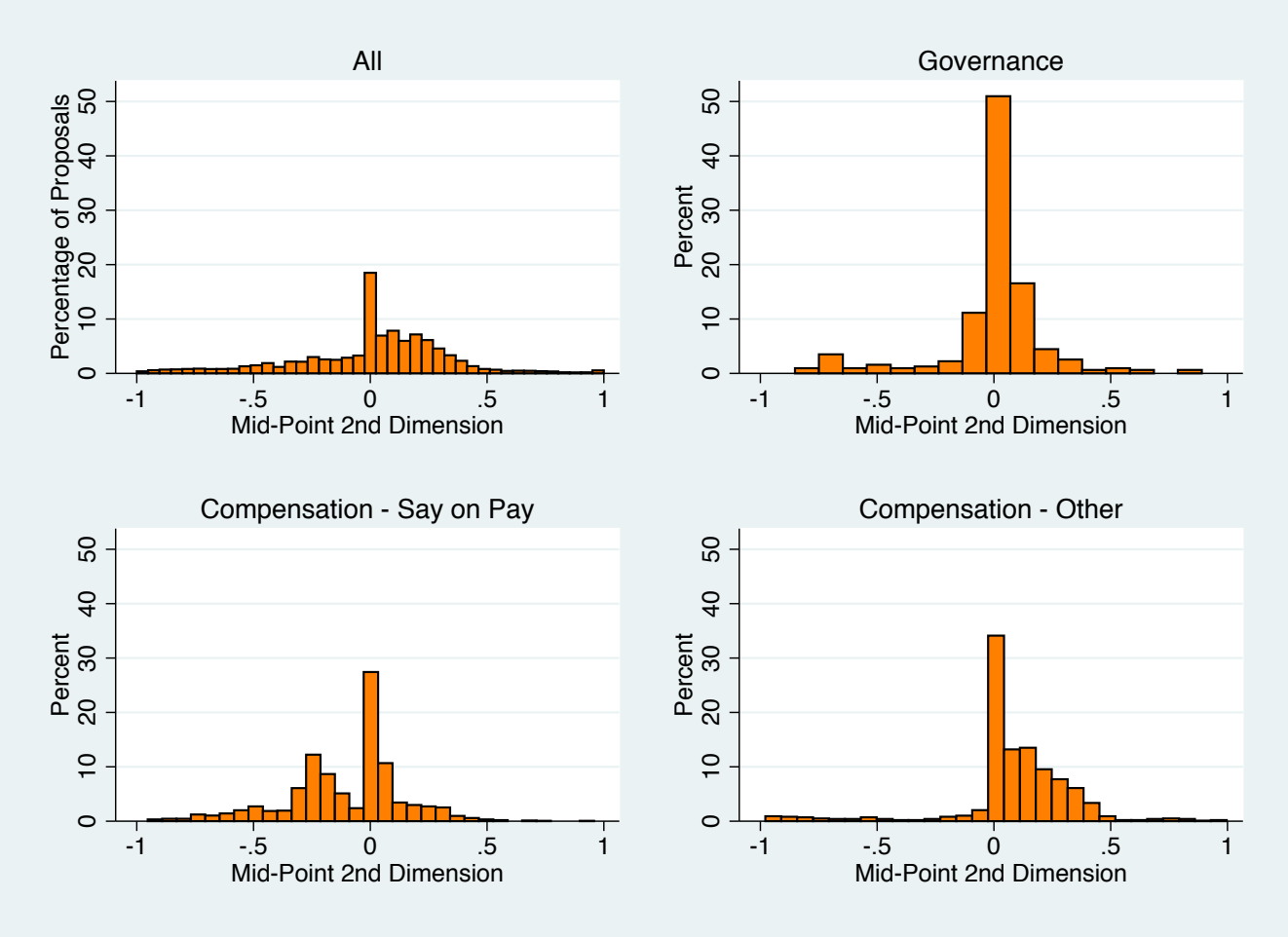


Figure 5: Distribution of Midpoints by Proposal Type, Two Dimensions W-NOMINATE, 2nd Dimension.

This Figure plots the distribution of 2nd Dimension 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, including director elections. The sample excludes institutions voting on less than 50 proposals, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the voters. The top-left Panel reports the distribution of the midpoints for all proposals, while the other Panels report the distribution of the Governance, Say on Pay and Other Compensation proposals, Director Elections, Social Proposals, and the Financial and Investment Policy proposals, respectively.



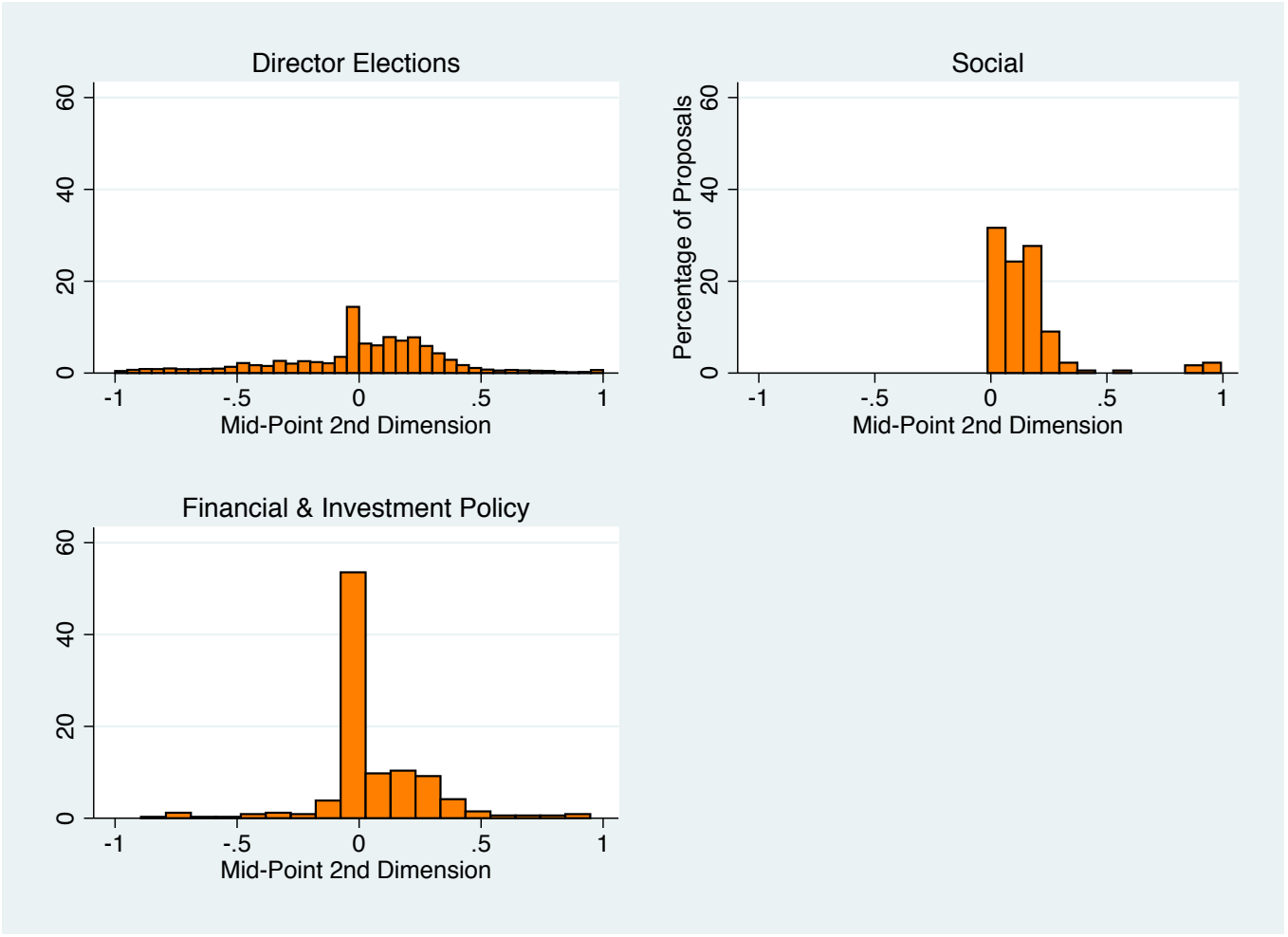

Director Elections
Social
Financial & Investment Policy
Percentage of Proposals
0
20
40
60
-1
-.5
0
.5
1
Mid-Point 2nd Dimension

Figure 6: Distribution of Midpoints by Sponsor Type, Two Dimensions W-NOMINATE, 2nd Dimension.

This Figure plots the distribution of 2nd Dimension 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, including director elections. The sample excludes institutions voting on less than 50 proposals, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the voters. The top-left Panel reports the distribution of the midpoints for all proposals, while the other two Panels report the distribution of the Shareholder- and Management-Sponsored proposals, respectively.

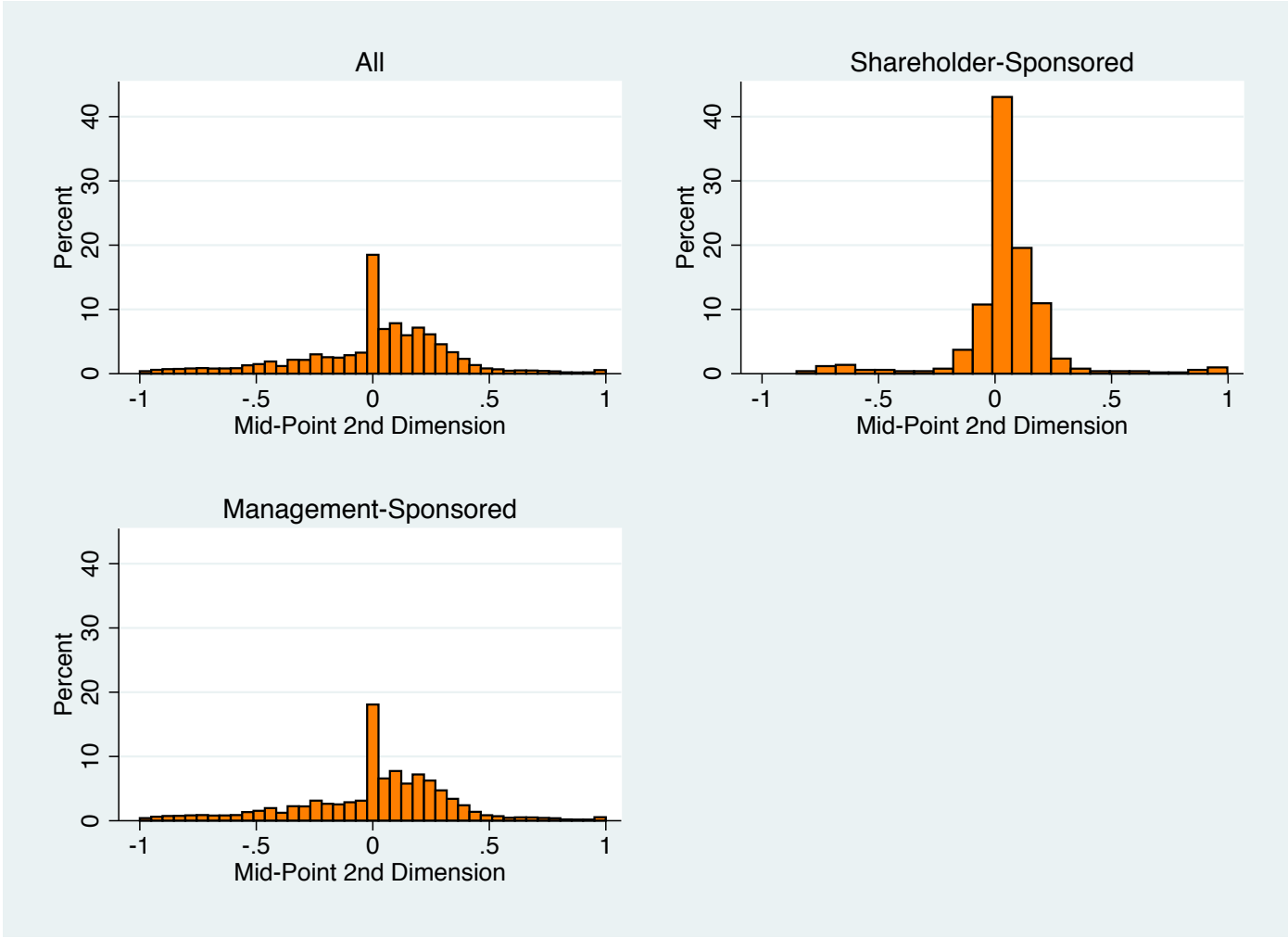
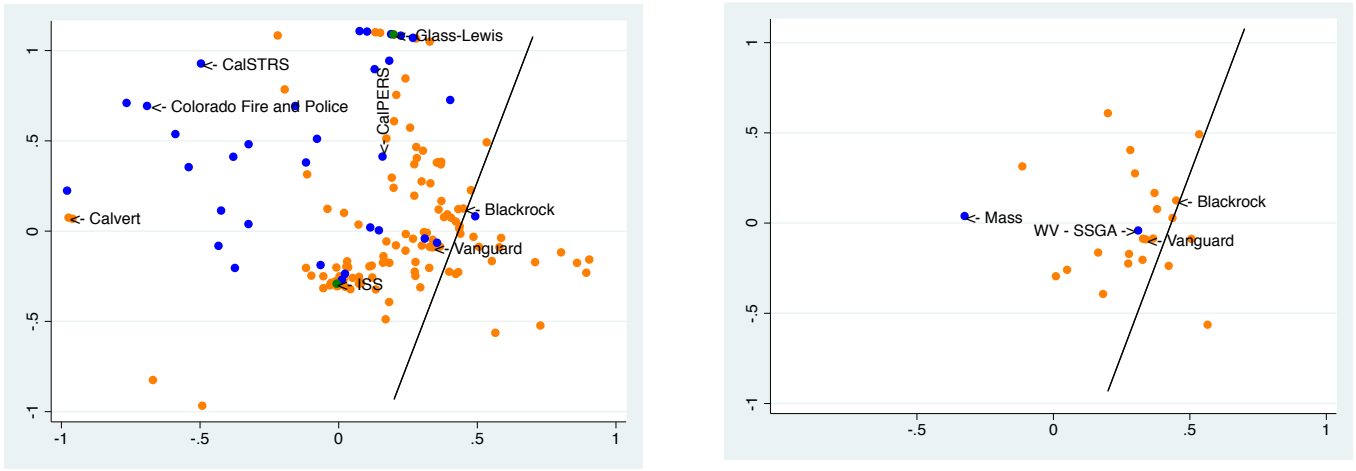


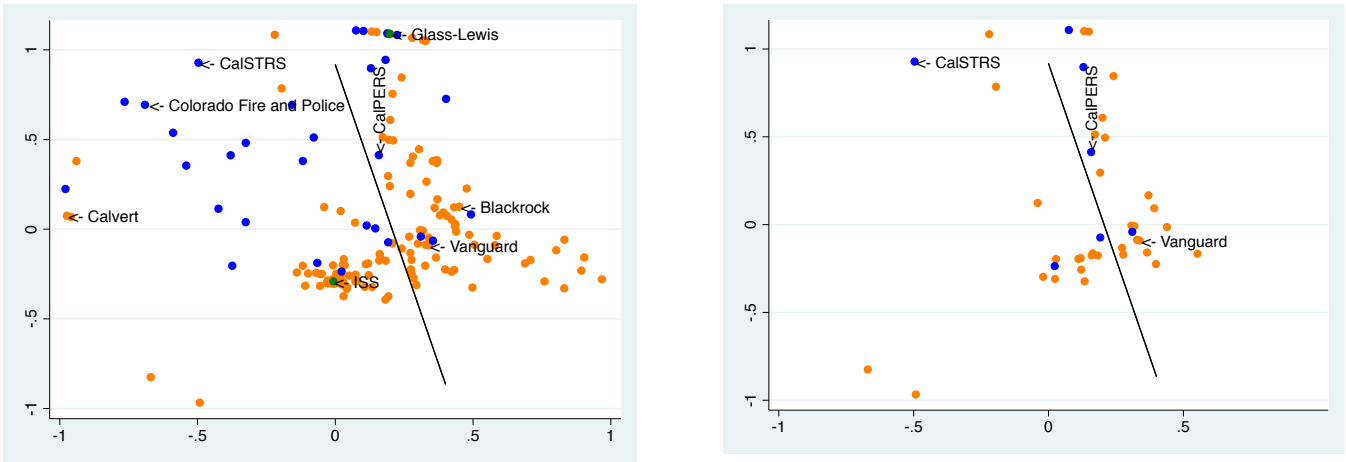
Figure 7: Cutting Lines for Specific Proposals, Two Dimension W-NOMINATE

This Figure plots the cutting line for three proxy votes in our data: the Citi Say on Pay proposal of April 17th 2012, a proposal on Environmental issues at Amazon, and the election of Michael Losch to the board of AON. For each proposal, the left panel shows all voters; the right voters that represent model errors. 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 cutting line is the two-dimensional generalization of the midpoint in one dimension. The angle the line makes with the first dimension reflects how voters trade off the two dimensions on each proposal. The angles vary between -90 degrees to +90 degrees. An angle of 0 or close to 0 is entirely a second-dimension issue, and angles of -90 or +90 degrees are entirely first dimension issues.

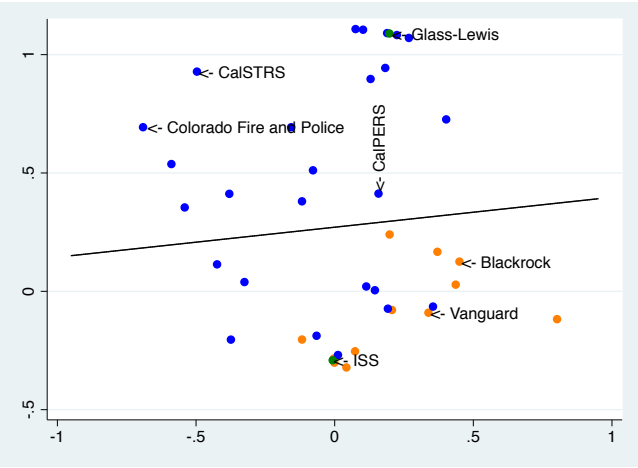
Panel A: Say on Pay Vote at Citigroup – April 17th 2012.



Panel B: Environmental Report at Amazon– May 24th 2012.



Panel C: Election of J. Michael Losch to the Board of AON – May 18th 2012.



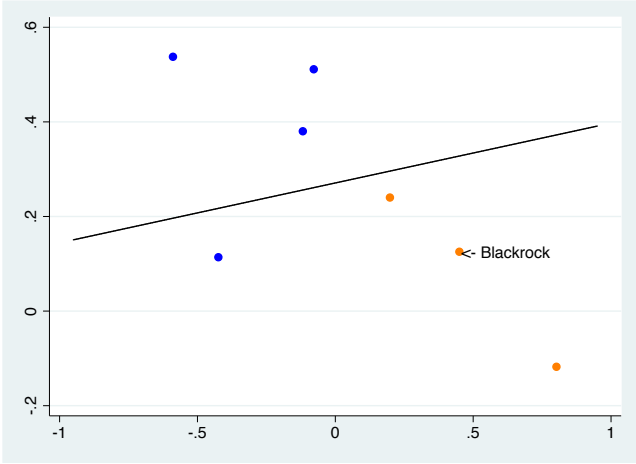
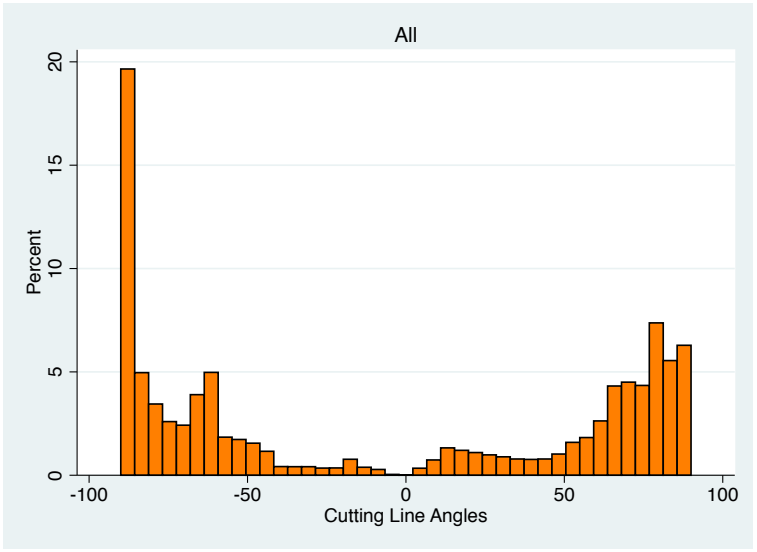


Figure 8: Distribution of Cutting Line Angles, Two Dimensions W-NOMINATE.

This Figure plots the distribution of the cutting line angles for each proposal, estimated with the W-NOMINATE scaling method. The cutting line is the line that separates the predicted "For" from the predicted "Against" the proposal in the two-dimensional space. The estimation sample covers all proposals for the fiscal year 2012, including director elections. The sample excludes institutions voting on less than 50 proposals, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the voters. The left Panel reports the distribution of the cutting line angles for all proposals, while the right Panel reports the distribution of the cutting line angles for Say on Pay, Director Elections, Governance, and Social proposals, respectively.



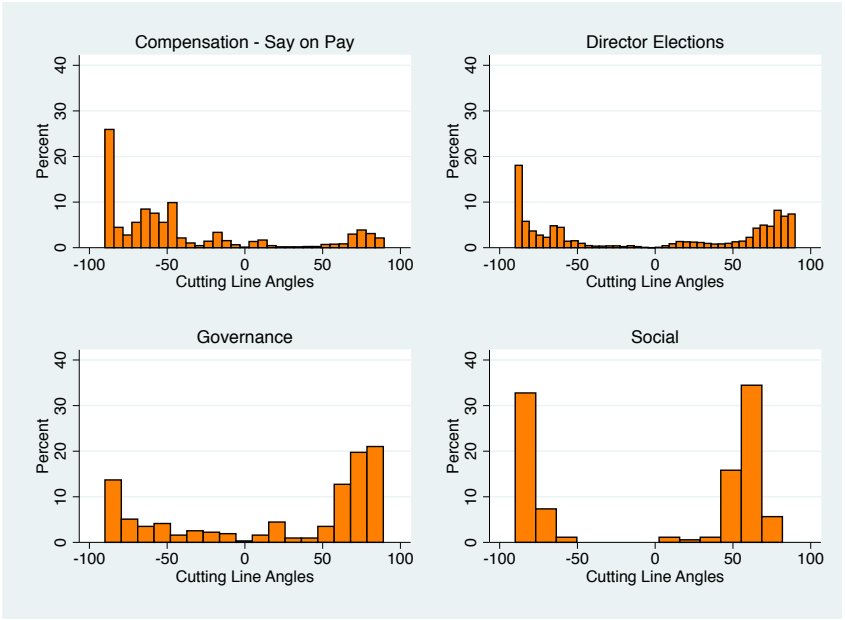
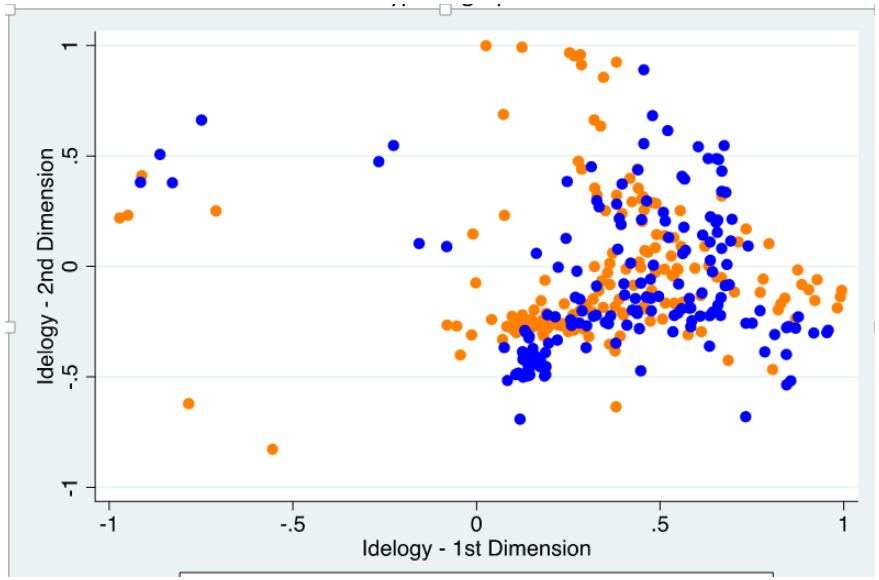


Figure 9: Evolution of the Ideal Points Over Time

In the left pane, we compare the estimated ideal points in fiscal year 2016 (blue ideal points) with those in fiscal year 2012 (orange ideal points). In both 2012 and 2016, 166 out of 397 institutions were present in the data. There were 53 institutions in 2012 that had disappeared by 2016, while 178 new institutions are now in the data. In the right pane, we perform a Procrustean rotation analysis for ideal points in 2012 and all years between 2004 and 2016. Due to some institutions disappearing over the years and some other being added, there are 219 extra mutual fund families in the sample covering 2014-2016. A Procrustean rotation transforms a source X to be as close as possible to a target Y. The permitted transformations are any combination of dilation (uniform scaling), rotation and reflection (that is, orthogonal or oblique transformations), and translation.



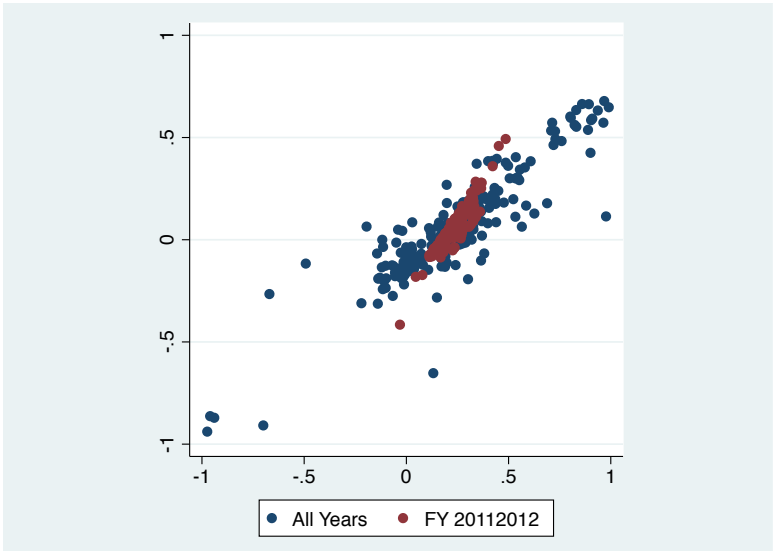


Table 1.A: Frequency of proposals by proposal type

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

Proposal Type	Proposal Category	# of Proposals	% Shareholder-Sponsored
Compensation	Compensation - Other	985	6.60%
	Compensation - Say on Pay	1,546	0%
	Total	***2,531***	***3%***
Director Elections	Director elections	***11,675***	***0.25%***
Financials and Investment Policy	Capital, Investment Policy and Restructuring	144	6.94%
	Other	194	0%
	Total	***338***	***3%***
Governance	Governance	***314***	***73.25%***
Social	Animal rights	14	100%
	Diversity	13	100%
	Employment and human rights	14	100%
	Environmental	47	100%
	Political	78	100%
	Product safety	3	100%
	Social - other	8	100%
	Total	***177***	***100%***
Total - Excluding Director Elections		***3,360***	***14%***
TOTAL		***15,035***	***3.40%***

Table 1.B: Frequency of proposals by proposal type

This Table reports the number of total and shareholder-sponsored proposals in our sample by category and support rate by management, ISS, Glass Lewis, the mutual fund families and public pension funds in our sample, and all shareholders, respectively. The sample covers all proposals from the fiscal year 2012, including director elections, and excludes institutions voting on less than 50 proposals, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the voters.

Proposal Type	Proposal Category	Management Recommends For	ISS Recommends For	Glass Lewis Recommends For	Fraction of Mutual Fund Families Voting For	Fraction of Pension Funds Voting For	Support Rate
Compensation	Compensation - Other	89.29%	84.39%	68.05%	79.49%	76.62%	80.17%
	Compensation - Say on Pay	99.82%	80.71%	69.71%	83.06%	80.86%	86.06%
	Total	***95.66%***	***82.16%***	***69.08%***	***81.65%***	***79.19%***	***83.74%***
Director Elections	Director elections	***100.00%***	***90.98%***	***79.85%***	***89.72%***	***87.27%***	***93.40%***
Financials and Investment Policy	Capital, Investment Policy and Restructuring	86.12%	64.82%	63.28%	69.00%	67.15%	67.92%
	Other	100.00%	63.21%	83.02%	66.66%	60.72%	77.38%
	Total	***93.75%***	***63.94%***	***77.46%***	***67.71%***	***63.60%***	***69.32%***
Governance	Governance	***15.58%***	***82.82%***	***71.68%***	***65.04%***	***68.60%***	***48.70%***
Social	Animal rights	0.00%	0.00%	29.26%	12.89%	16.40%	4.01%
	Diversity	0.00%	72.69%		44.04%	48.15%	25.27%
	Employment and human rights	0.00%	40.07%		25.95%	29.49%	14.79%
	Environment	0.00%	55.22%	0.00%	32.37%	36.77%	18.46%
	Political	0.00%	51.02%	25.82%	31.09%	36.30%	17.82%
	Product safety	0.00%	0.00%		6.74%	12.08%	3.75%
	Social - other	0.00%	15.20%	100.00%	16.59%	19.53%	10.96%
	Total	***0.00%***	***46.47%***	***24.06%***	***29.48%***	***34.10%***	***16.67%***
TOTAL		**94.67%**	**87.84%**	**77.24%**	**85.89%**	**83.77%**	**88.62%**

Table 1.C: Firm Characteristics

This Table reports the characteristics of the firms in our sample. The sample comprises the Russell 3000 firms covered in the ISS Mutual Fund Voting Records in the period between July 1st 2011 and June 30th 2012. Our data sources are Compustat, CRSP, Thomson Reuters, ExecuComp, and RiskMetrics (ISS). *ROA* is return on assets, defined as EBITDA/assets. *Dividend Yield* equals (common dividend + preferred dividend)/(market value of common stock + book value of preferred). *Leverage* is defined as the ratio of debt to the sum of debt and equity, all in book values. *Prior-year Total Return* is the buy-and-hold stock return during the 12 months prior to the meeting. *Amihud Liquidity* Measure is the yearly average (using daily data ending quarter *t*-1 from CRSP) of $1000\sqrt{|\text{ret}|/\text{dollar trading volume}}$. *Size* represents assets in billions of dollars. *Market Capitalization* is in billions of dollars. *Book-to-Market Ratio* is defined as (book value of equity)/(market value of equity). *Institutional ownership*, is the fraction of shares held by institutional investors, as reported by the Thomson Reuters Ownership Database. *Exec. Cash/Total Pay* is the ratio of salary and cash bonus to total compensation. *Increase in Average Exec. Pay* is the percentage change in total executive compensation year-on-year. *Board Size* is the number of board members. *Ratio of Independent Directors* is the number of independent directors divided by the total number of directors at the firm. *Classified Board* and *Poison Pill* are dummy variables equal to 1 if the company has a classified board and a poison pill, respectively, and 0 otherwise. A classified board (or "staggered" board) is one in which the directors are placed into different classes and serve overlapping terms. A poison pill provides shareholders with special rights in the case of a triggering event such as a hostile takeover bid. *Unequal Voting Rights* is an indicator equal to 1 if certain share classes of the stock have more voting power than the rest, and 0 otherwise. *Vote % Required to Amend Bylaws* is the percentage of consent votes required to amend company bylaws. *Supermajority mergers* is the percentage vote threshold for mergers requiring approval from more than 50% of the outstanding stock.

	Mean	Std Dev	10th pctile	25th pctile	Median	75th pctile	90th pctile	Obs
ROA	0.093	0.237	0.000	0.049	0.111	0.165	0.229	3,004
Dividend Yield	0.017	0.033	0.000	0.000	0.004	0.025	0.043	3,131
Leverage	0.346	0.744	0.000	0.022	0.272	0.499	0.731	2,791
Past-year Total Return	-0.028	0.349	-0.414	-0.218	-0.032	0.135	0.345	3,119
Amihud Liquidity Measure	0.074	0.084	0.009	0.018	0.042	0.099	0.185	3,136
Size	16.375	107.628	0.181	0.473	1.671	5.979	22.839	3,138
Market Capitalization	7.599	26.529	0.171	0.358	1.176	3.973	15.188	3,135
Book-to-Market Ratio	0.627	0.693	0.128	0.285	0.529	0.856	1.216	3,133
Institutional Ownership	0.709	0.223	0.387	0.575	0.752	0.872	0.949	2,635
Exec. Cash/Total Pay	0.339	0.190	0.154	0.203	0.296	0.422	0.606	2,061
Increase in Average Exec. Pay	0.213	0.675	-0.246	-0.067	0.094	0.318	0.659	2,056
Golden Parachute	0.813	0.390	0.000	1.000	1.000	1.000	1.000	1,671
Board Size	9.503	2.416	7.000	8.000	9.000	11.000	12.000	1,607
Ratio of Independent Directors	0.795	0.108	0.625	0.714	0.818	0.889	0.909	1,607
Classified Board	0.410	0.492	0.000	0.000	0.000	1.000	1.000	1,671
Poison Pill	0.138	0.345	0.000	0.000	0.000	0.000	1.000	1,671
Unequal Voting Rights	0.043	0.203	0.000	0.000	0.000	0.000	0.000	1,671
Vote % Required to Amend Bylaws	46.756	29.408	0.000	0.000	51.000	66.670	80.000	1,491
Supermajority Mergers (%)	58.710	11.150	51.000	51.000	51.000	66.670	80.000	1,571

Table 1.D: Director Characteristics

This Table reports the characteristics of directors up for election in our sample. The sample comprises the Russell 3000 firms covered in the ISS Mutual Fund Voting Records in the period between July 1st 2011 and June 30th 2012. Our data source is RiskMetrics (ISS). *Female* is a dummy variable equal to 1 if a director nominee is female, and 0 otherwise. *Age* is the director's age in years. *Employee Director* are dummy variables equal to 1 if the director is an employee of the company or one of its affiliates, and 0 otherwise. *Independent Director* is a dummy variable equal to 1 if the director has no material connection to the company other than a board seat, and 0 otherwise. *Linked Director* equals 1 for affiliated outside directors, including former executives and their family members, individuals providing transactional, professional, financial, and charitable services, and individuals with other material relationships with the firm, and 0 otherwise. *Attended <75% of Meetings* equals 1 if the director attends fewer than 75% of the board meetings in a year. *African-American, Asian, Caucasian,* and *Hispanic* are dummy variables equal to 1 if the director is African-American, Asian, Caucasian, and Hispanic, respectively, and 0 otherwise. Financial Expert equals 1 if the director has financial expertise, and 0 otherwise. # of Outside Public Boards is the number of other U.S. boards that the director serves on at the time of the meeting. *Number of Shares* is the number of company shares the director holds. *% Controlling Voting Power* is the percent of the company's voting power controlled by the director.

	Mean	Std Dev	10th pctile	25th pctile	Median	75th pctile	90th Pctile	Obs
Female	0.118	0.322	0.000	0.000	0.000	0.000	1.000	5,972
Age	63.538	8.473	53.000	58.000	64.000	69.000	73.000	5,937
Employee Director	0.154	0.361	0.000	0.000	0.000	0.000	1.000	5,900
Independent Director	0.785	0.411	0.000	1.000	1.000	1.000	1.000	5,900
Linked Director	0.061	0.239	0.000	0.000	0.000	0.000	0.000	5,900
Attended <75% of Meetings	0.007	0.086	0.000	0.000	0.000	0.000	0.000	5,972
African-American	0.035	0.183	0.000	0.000	0.000	0.000	0.000	5,884
Asian	0.028	0.164	0.000	0.000	0.000	0.000	0.000	5,884
Caucasian	0.924	0.265	1.000	1.000	1.000	1.000	1.000	5,884
Hispanic	0.014	0.117	0.000	0.000	0.000	0.000	0.000	5,884
Financial Expert	0.374	0.484	0.000	0.000	0.000	1.000	1.000	5,972
# of Outside Public Boards	0.889	1.100	0.000	0.000	1.000	2.000	2.000	5,968
Number of Shares	1,658,505	32,332,522	5,000	17,298	45,201	153,295	1,057,488	5,900
% Controlling Voting Power	1.008	5.560	0.000	0.000	0.000	0.000	1.100	5,972

Table 2: Results of W-NOMINATE Estimation

Panel A reports the correlations between 1st dimension ideal points across the four models. Panel B 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 column reports the percent of votes correctly classified. This statistics is calculated as (CorrectYea+CorrectNay)/(CorrectYea+Wrong Yea +CorrectNay + WrongNay). The fourth column 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 fifth 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.

Panel A: Correlations between 1st Dimension Ideal Points

	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	0.6291	1		
Ideology 1st Dim, 2Dim No Dir	0.9933	0.6110	1	
Ideology 1st Dim, 2Dim w. Dir	0.8792	0.7520	0.8870	1

Panel B: W-NOMINATE Diagnostics and Measures of Goodness of Fit

	Number of Institutions	Number of Proposals	% Correctly Classified	APRE	GMP	Beta
1 Dim No Director Elections	248	3,360	88.24%	0.339	0.734	18.1
1 Dim w. Director Elections	262	15,035	90.41%	0.262	0.784	19
2 Dim No Director Elections	248	3,360	90.44%	0.463	0.776	18.2
2 Dim w. Director Elections	262	15,035	92.28%	0.406	0.819	18.8

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 8 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, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the voters.

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

Institution Name	Ideology	Std. Error	Fraction Correctly Classified
Socially and Environmentally oriented			
State Universities Retirement System of Illinois (SURS)	-1	0.0246941	0.8706824
AFSCME Employee Pension Plan	-1	0.046613	0.9033372
Domini Social Investments LLC	-1	0.0569083	0.8785714
Empiric Advisors, Inc	-0.9028	0.0710603	0.7625
West Virginia Intech	-0.7649896	0.1170532	0.8904494
Colorado Fire & Police	-0.7271071	0.1172575	0.8658009
Wisdomtree Asset Management	-0.7101426	0.1168684	0.761171
Pax World Management Corp	-0.660415	0.1167497	0.6666667
Jackson National Asset Management, LLC	-0.5723136	0.1164388	0.7368584
UTC Fund Services, Inc	-0.5340148	0.1333109	0.7475728
Calvert Group, Ltd.	-0.5135871	0.1175321	0.7889994
Connecticut	-0.4855127	0.115888	0.8358759
Profit Oriented			
Calamos Asset Management, I	1	0.0982558	0.993576
Bridges Investment Management, Inc	1	0.1029372	1
Reynolds Capital Management	1	0.1072991	0.9938758
Leuthold Weeden Capital Management	1	0.1163659	0.9766839
Jensen Investment Management, Inc.	1	0.1197756	1
Cooke & Bieler, L.P.	1	0.1215193	1
Volumetric Advisers, Inc	1	0.1245999	1
Trustmark Investment Advisors, Inc.,	0.9694349	0.1164379	0.9873418
Rydex Investments	0.9628192	0.15123	0.9931014
Friess Associates, LLC	0.9498785	0.1153346	1
Needham Investment Management L.L.C.	0.9386053	0.141203	0.9903846
Marsico Capital Management LLC	0.900437	0.1117658	0.9741935

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					
Socially and Environmentally oriented					
Ohio School Employees Retirement System (SERS)	-0.9794312	0.2017783	0.0059716	0.1548129	0.8057575
Calvert Group, Ltd.	-0.9740931	0.0672688	0.009829	0.0362469	0.8445629
Bridgeway Capital Management	-0.9598652	0.0615927	0.0102534	0.0463394	0.8912296
Pax World Management	-0.9397177	0.3419515	0.0143747	0.2599173	0.7132184
West Virginia (Intech)	-0.7648223	0.6391013	0.0238325	0.4224344	0.783106
Domini Social Investments LLC	-0.6999083	0.235248	0.034954	0.1573855	0.672619
Colorado Fire & Police	-0.6910703	0.6239996	0.0262851	0.4537459	0.7583955
Wisdomtree Asset Management	-0.6699384	-0.7424167	0.0240919	0.5262731	0.8166725
Profit Oriented					
Reynolds Capital Management	0.8930598	-0.2077068	0.1106239	0.1033906	0.9975074
RiverPark Advisors, LLC	0.9009526	-0.270956	0.1199641	0.1598995	0.9977477
Rydex Investments	0.9038805	-0.1418547	0.116094	0.0469405	0.9958423
Friess Associates, LLC	0.9366541	-0.1960456	0.1121389	0.1356575	1
Jensen Investment Management, Inc.	0.9640822	-0.2656041	0.0856454	0.2081163	1
Bridges Investment Management, Inc	0.967861	-0.2514858	0.0660105	0.2143854	1
Cooke & Bieler, L.P.,	0.9769343	-0.2135402	0.0891152	0.2132129	1
Needham Investment Management L.L.C.	0.9902057	-0.1396157	0.1042554	0.1140052	0.9972299
Extremist on the 2nd Dimension					
Pro-Management's Director Proposals					
Jackson National Asset Management, LLC	-0.491948	-0.8706245	0.035947	0.6293962	0.8288027
Wisdomtree Asset Management	-0.6699384	-0.7424167	0.0240919	0.5262731	0.8166725
Duff & Phelps Investment	0.2416496	-0.7238215	0.0916823	0.5219357	0.9227273
Kentucky Teachers' Retirement System	-0.0770544	-0.6025433	0.1246738	0.4859573	0.9833333
Northeast Investors Trust	0.5650132	-0.5069668	0.1157098	0.3804131	0.9256506
Hotchkis & Wiley Capital Management LLC	0.7274953	-0.4706386	0.1090603	0.2699386	0.9714286
Prospector Partners Asset Management, LLC	0.1694364	-0.4395572	0.08645	0.3404779	0.9601838
Curian	0.178545	-0.4135816	0.0851937	0.3873381	0.8292683
Tough on Management's Director Proposals					
Van Eck Associates Corp.	0.2004524	0.9797035	0.0868457	0.6505696	0.9406114
Glass Lewis	0.1975743	0.9802879	0.0865324	0.6541182	0.9384533
Oregon Pension	0.1892099	0.9819367	0.086339	0.6401411	0.937228
Claymore Advisors, LLC	0.189205	0.9819376	0.0874413	0.6572208	0.9415513
MMA Capital Management	0.1496552	0.9887383	0.0856178	0.6624821	0.9237508
New Covenant Funds	0.1318883	0.9912647	0.0850135	0.6663935	0.9078559
NYS Teachers	0.1024537	0.9947378	0.0836144	0.6564674	0.8996188
Maine Pension Fund	0.0753654	0.997156	0.0811838	0.6715055	0.9130718

Table 4: 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, proposals with less than 20 voters, and lop-sided proposals with the minority comprising less than 3% of the voters.

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

Institution Name	Ideology	Std. Error	Fraction Correctly Classified
Funds closest to ISS			
Touchstone Funds	-0.1451423	0.1033062	0.8178528
West Virginia AJO	-0.1443506	0.122538	1
Nicholas Company, Inc.	-0.1422135	0.1120603	0.9919679
SEI Investments Management Corporation	-0.1414644	0.1065608	0.9965844
Driehaus Capital Management	-0.1408656	0.1191726	1
ISS	-0.1386434	0.108727	0.9945372
Denver Investment Advisors LLC	-0.138535	0.1133344	1
ProFund Advisors LLC	-0.1374074	0.1051159	0.9948949
Nuveen Asset Management	-0.1374068	0.1079643	0.9950815
Scout Investment Advisors, Inc.	-0.1273246	0.1039985	0.9713376
Norges Bank	-0.1265874	0.1055464	0.9775986
Funds closest to Glass-Lewis			
BB&T Asset Management, Inc.	0.076801	0.0978741	0.8377483
Oregon	0.0772134	0.0946853	0.828874
Claymore Advisors, LLC	0.0788968	0.094258	0.8145964
NYS Teachers	0.0836503	0.0926781	0.770947
Russell Investment Group	0.0837826	0.0943745	0.8180505
Glass Lewis	0.0868774	0.0957206	0.8156863
BAMCO, Inc.	0.0875538	0.1078178	0.7303371
Loomis, Sayles & Co. LP	0.0902987	0.0936167	0.8460076
Payden & Rygel	0.0916916	0.0990156	0.8040201
Van Eck Associates Corporat	0.0918904	0.0884077	0.8333333
OrbiMed Advisors, LLC	0.0934328	0.1059979	0.852459

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
Funds closest to ISS							
ISS	-0.0070479	-0.2622374	0.0718574	0.2335948	0.9954292	0	1.259261
Rafferty Asset Management, LLC	-0.0076909	-0.2571572	0.0718995	0.2230805	0.9974076	0.0051207	1.254354
First Trust Advisors L.P.	-0.0028155	-0.2555193	0.0697905	0.2212726	0.9975527	0.0079402	1.251949
Nuveen Asset Management	-0.0018568	-0.2716306	0.0733461	0.2372712	0.9959661	0.0107321	1.267704
SEI Investments Management Corporation	-0.0007301	-0.2713887	0.0716214	0.2352213	0.996726	0.0111203	1.267288
Optique Capital Management, Inc.	-0.0095376	-0.2509124	0.0747275	0.2228893	0.9967115	0.0115955	1.248499
Boyar Asset Management, Inc	-0.0113924	-0.250994	0.0858455	0.2290785	0.993311	0.0120536	1.248888
ProFund Advisors LLC	-0.006784	-0.2745781	0.0725374	0.2418119	0.9962403	0.0123435	1.271397
William Blair Capital Management LLC	-0.0194491	-0.2633933	0.0723455	0.2248723	0.996709	0.0124549	1.262475
Auxier Asset Management, LLC	-0.0185993	-0.2669357	0.0724381	0.2311232	0.9927798	0.0124703	1.265819
Oak Associates, ltd	-0.019752	-0.2676375	0.0781459	0.2216477	0.9944994	0.0138042	1.266708
Funds closest to Glass-Lewis							
Glass Lewis	0.1975743	0.9802879	0.0865324	0.6541182	0.9384533	1.259261	0
Van Eck Associates Corp.	0.2004524	0.9797035	0.0868457	0.6505696	0.9406114	1.259156	0.0029368
Oregon	0.1892099	0.9819367	0.086339	0.6401411	0.937228	1.259558	0.0085253
Claymore Advisors, LLC	0.189205	0.9819376	0.0874413	0.6572208	0.9415513	1.259558	0.0085303
Penn PSERS	0.2243347	0.9745122	0.0909302	0.6378966	0.9345719	1.258208	0.0273766
MMA Capital Management	0.1496552	0.9887383	0.0856178	0.6624821	0.9237508	1.260752	0.0486585
New Covenant Funds	0.1318883	0.9912647	0.0850135	0.6663935	0.9078559	1.261178	0.0665969
Alberta	0.2676701	0.9635107	0.0924514	0.6084981	0.9500832	1.256156	0.0720756
ICON Advisers, Inc	0.2718845	0.96233	0.0933801	0.6347451	0.9352518	1.255933	0.0764493
Charles Schwab Investment M	0.2792336	0.9602232	0.090817	0.6352763	0.9288886	1.255535	0.0840883
Destra Capital Advisors LLC	0.2893983	0.9572088	0.0865301	0.6461535	0.9545455	1.254962	0.0946799

Table 5 – Proposal Midpoints and Firm Characteristics

This Table reports OLS regressions of midpoints along the first and second dimensions respectively as a function of firm, governance, sponsor, and proposal characteristics. Firm and governance characteristics are as defined in Table 1.C. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Ideal Point 1st D	Ideal Point 1st D	Ideal Point 1st D	Ideal Point 1st D	Ideal Point 1st D	Ideal Point 2nd D	Ideal Point 2nd D	Ideal Point 2nd D	Ideal Point 2nd D	Ideal Point 2nd D
Shareholder-Sponsored Proposal	0.701***	0.782***	0.788***	0.515***	0.474***	-0.0133	-0.0139	-0.0136	0.00787	0.0423
	[29.54]	[31.77]	[30.95]	[16.26]	[12.22]	[-0.762]	[-0.771]	[-0.759]	[0.345]	[1.505]
ROA	-0.0182	0.0463	-0.00941	-0.0321	-0.0120	-0.0890***	-0.204***	-0.204***	-0.214***	-0.209***
	[-0.636]	[0.653]	[-0.119]	[-0.416]	[-0.157]	[-4.243]	[-3.943]	[-3.671]	[-3.860]	[-3.779]
Dividend Yield	0.117	-0.184	0.115	0.168	0.162	0.460***	0.0787	0.119	0.126	0.126
	[0.823]	[-0.883]	[0.536]	[0.801]	[0.780]	[4.413]	[0.517]	[0.783]	[0.835]	[0.834]
Leverage	0.0140**	-0.0150	0.0121	0.00752	0.00720	0.00688	0.0209	0.0205	0.0210	0.0221
	[2.235]	[-0.641]	[0.475]	[0.304]	[0.293]	[1.498]	[1.224]	[1.146]	[1.180]	[1.241]
Past-year Total Return	-0.0319**	-0.0324	-0.0583**	-0.0575**	-0.0635***	0.00787	0.0164	0.0209	0.0187	0.0168
	[-2.368]	[-1.453]	[-2.405]	[-2.437]	[-2.712]	[0.796]	[1.008]	[1.226]	[1.103]	[0.994]
Amihud Liquidity Measure	0.456***	0.847***	0.583***	0.485***	0.426**	-0.226***	-1.031***	-0.603***	-0.593***	-0.617***
	[7.483]	[5.011]	[3.051]	[2.613]	[2.306]	[-5.046]	[-8.347]	[-4.497]	[-4.437]	[-4.613]
Size	-0.00012**	-5.62e-05	-6.96e-05	-7.53e-05	-7.72e-05	-2.18e-06	-5.59e-05	4.91e-06	3.88e-06	3.70e-06
	[-2.296]	[-1.081]	[-1.305]	[-1.452]	[-1.494]	[-0.0566]	[-1.471]	[0.131]	[0.104]	[0.0990]
Market Capitalization	-0.0012***	-0.00094***	-0.00058***	-0.00052***	-0.00054***	0.000500***	0.000256**	0.000235*	0.000247**	0.000229*
	[-7.208]	[-5.627]	[-3.310]	[-3.059]	[-3.158]	[4.195]	[2.094]	[1.902]	[2.012]	[1.859]
Book-to-Market	0.000911	-0.0209	-0.0186	-0.0168	-0.0164	0.000143	0.00215	-0.0121	-0.0128	-0.0129
	[0.118]	[-1.602]	[-1.359]	[-1.265]	[-1.241]	[0.0254]	[0.226]	[-1.266]	[-1.343]	[-1.352]
Institutional Ownership	-0.227***	0.0110	-0.0175	-0.0399	-0.0419	-0.127***	-0.120***	-0.0284	-0.0230	-0.0216
	[-10.03]	[0.271]	[-0.365]	[-0.856]	[-0.904]	[-7.649]	[-4.078]	[-0.841]	[-0.685]	[-0.642]
Exec. Cash Pay/Total		0.121***	-0.00727	-0.00527	0.00404		0.0242	-0.0185	-0.0212	-0.0182
		[3.458]	[-0.176]	[-0.131]	[0.101]		[0.944]	[-0.636]	[-0.732]	[-0.631]
Increase in Average Exec. Pay (%)		0.0229*	0.0116	0.0127	0.0141		0.0129	0.0176**	0.0181**	0.0185**
		[1.933]	[0.914]	[1.032]	[1.157]		[1.492]	[1.977]	[2.045]	[2.088]

Golden Parachute		-0.0551***	-0.0243	-0.0252	-0.0293*		-0.0469***	-0.00451	-0.00141	-0.00211
		[-3.897]	[-1.517]	[-1.615]	[-1.892]		[-4.531]	[-0.400]	[-0.126]	[-0.188]
Board Size			-0.0140***	-0.0144***	-0.0142***			0.0121***	0.0119***	0.0118***
			[-4.664]	[-4.933]	[-4.910]			[5.752]	[5.660]	[5.631]
Fraction of Indep. Dirs			-0.394***	-0.397***	-0.404***			-0.269***	-0.259***	-0.263***
			[-6.430]	[-6.657]	[-6.819]			[-6.246]	[-6.038]	[-6.132]
Classified Board			0.0338**	0.0119	0.0115			-0.0254**	-0.0181*	-0.0187*
			[2.387]	[0.860]	[0.837]			[-2.557]	[-1.809]	[-1.871]
Poison Pill			0.0653***	0.0675***	0.0726***			-0.112***	-0.114***	-0.112***
			[4.070]	[4.324]	[4.680]			[-9.906]	[-10.15]	[-10.02]
Unequal Voting Rights			0.140***	0.137***	0.141***			-0.00186	-0.00469	-0.00330
			[5.224]	[5.267]	[5.456]			[-0.0990]	[-0.250]	[-0.176]
Vote % Required to Amend Bylaws			-8.93e-05	-8.70e-05	-3.95e-05			0.000267*	0.000286*	0.000293**
			[-0.424]	[-0.425]	[-0.194]			[1.806]	[1.943]	[1.990]
Supermajority Mergers (%)			-0.00202***	-0.00228***	-0.00244***			-0.000605	-0.000646	-0.000692*
			[-3.423]	[-3.983]	[-4.292]			[-1.461]	[-1.566]	[-1.679]
Director Election Proposal				0.0850***	0.0884***				-0.0833***	-0.0821***
				[4.647]	[4.867]				[-6.333]	[-6.246]
Governance Proposal				0.590***	0.648***				0.106**	0.119**
				[9.055]	[9.345]				[2.267]	[2.375]
Social Proposal				0.578***	1.099***				-0.0685**	0.131*
				[14.03]	[11.37]				[-2.313]	[1.875]
Compensation Proposal Sh Sponsrd					0.399***					-0.0322
					[5.682]					[-0.633]
Financial Policy Proposal Sh Sponsrd					-0.381*					-0.126
					[-1.957]					[-0.891]
Governance Proposal Sh Sponsrd					-0.537***					-0.255***
					[-4.943]					[-3.245]
Constant	-0.396***	-0.620***	-0.0463	-0.0125	-0.00428	0.117***	0.190***	0.233***	0.232***	0.236***
	[-19.26]	[-15.07]	[-0.586]	[-0.162]	[-0.0561]	[7.760]	[6.320]	[4.196]	[4.199]	[4.266]
Observations	10,331	5,610	4,857	4,857	4,857	10,331	5,610	4,857	4,857	4,857
Adjusted R-squared	0.102	0.157	0.185	0.230	0.241	0.014	0.030	0.065	0.075	0.076

Table 6 – Director Elections Proposal Midpoints and Director Characteristics

This Table reports OLS regressions of midpoints along the first and second dimensions respectively as a function of director characteristics for director elections. Firm and director characteristics are as defined in Tables 1.C and 1.D. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

	(1)	(2)	(3)	(4)
	Midpoint 1st D	Midpoint 1st D	Midpoint 2nd D	Midpoint 2nd D
Female	-0.0428***	-0.0379**	0.0251*	0.0191
	[-2.954]	[-2.086]	[1.921]	[1.197]
Age	0.000115	0.000362	0.00240***	0.00232***
	[0.205]	[0.517]	[4.744]	[3.783]
Employee Director	-0.133***	-0.109***	-0.00366	0.0189
	[-5.991]	[-3.773]	[-0.182]	[0.743]
Independent Director	-0.0987***	-0.0637**	-0.177***	-0.117***
	[-5.055]	[-2.414]	[-10.02]	[-5.039]
Attended <75% of meetings	0.638***	0.624***	0.119**	0.115**
	[11.87]	[9.554]	[2.460]	[2.002]
Financial Expert	-0.000792	0.00622	0.0231**	0.0304***
	[-0.0797]	[0.502]	[2.570]	[2.794]
# of Outside Public Boards	-0.00672	0.00961*	0.0127***	-0.00229
	[-1.549]	[1.729]	[3.251]	[-0.469]
% Controlling Voting Power	0.00450***	0.00202*	0.000182	0.000145
	[5.256]	[1.892]	[0.236]	[0.155]
ROA		-0.0280		-0.180***
		[-0.368]		[-2.697]
Dividend Yield		0.587		0.182
		[1.514]		[0.535]
Leverage		-0.0393		0.0229
		[-1.564]		[1.040]
Past-year Total Return		-0.0183		0.0196
		[-0.784]		[0.956]
Amihud Liquidity Measure		0.688***		-0.683***
		[3.761]		[-4.263]
Size		-2.28e-05		-1.48e-05
		[-0.406]		[-0.301]
Market Capitalization		-0.000505**		0.000377**
		[-2.555]		[2.178]
Book-to-Market		-0.0186		0.000620
		[-1.448]		[0.0550]
Institutional Ownership (%)		-0.0326		-0.0159
		[-0.688]		[-0.382]
Exec. Cash Pay/Total		0.0141		0.0169
		[0.357]		[0.488]
Increase in Average Exec. Pay (%)		0.00954		0.0295***
		[0.793]		[2.798]
Golden Parachute		-0.0153		-0.00288

		[-0.981]		[-0.211]
Board Size		-0.0113***		0.0133***
		[-3.816]		[5.095]
Fraction of Indep. Dirs		-0.341***		-0.195***
		[-5.532]		[-3.611]
Classified Board		0.0136		-0.0231*
		[0.953]		[-1.838]
Poison Pill		0.0894***		-0.136***
		[5.880]		[-10.24]
Unequal Voting Rights		0.109***		0.00516
		[4.354]		[0.234]
Vote % Required to Amend Bylaws		-9.63e-05		0.000326*
		[-0.474]		[1.829]
Supermajority Mergers (%)		-0.00225***		-0.00148***
		[-3.875]		[-2.912]
Constant	-0.518***	-0.0763	-0.0266	0.110
	[-12.69]	[-0.831]	[-0.721]	[1.363]
Observations	5,871	3,590	5,871	3,590
Adjusted R-squared	0.037	0.093	0.045	0.106

Table 7 – Cutting Line Angles and Firm Characteristics

This Table reports OLS regressions of the cutting line angle as a function of firm, governance, sponsor, and proposal characteristics. Firm and governance characteristics are as defined in Table 1.C. In columns (1)-(5), we use the cutting line angle as the dependent variable, while in columns (6)-(10), we replace it with the absolute value of the cutting line angle. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Angle	Angle	Angle	Angle	Angle	|Angle|	|Angle|	|Angle|	|Angle|	|Angle|
Shareholder-Sponsored Proposal	23.95***	29.83***	30.83***	11.28	48.16	-1.896*	-1.506	-1.625	7.333***	-6.445
	[6.046]	[6.858]	[7.046]	[1.223]	[1.436]	[-1.661]	[-1.185]	[-1.242]	[2.637]	[-0.637]
ROA	0.350	-2.804	-6.627	-11.33	-12.75	-0.809	7.762**	8.901**	8.774**	8.424**
	[0.0734]	[-0.224]	[-0.486]	[-0.843]	[-0.949]	[-0.589]	[2.120]	[2.186]	[2.164]	[2.077]
Dividend Yield	-27.19	-87.31**	-59.81	-50.53	-51.03	9.116	-13.83	-13.46	-12.32	-12.51
	[-1.146]	[-2.373]	[-1.615]	[-1.382]	[-1.397]	[1.334]	[-1.287]	[-1.216]	[-1.117]	[-1.135]
Leverage	-0.871	0.183	4.137	3.811	3.794	-0.654**	2.482**	2.914**	2.792**	2.808**
	[-0.834]	[0.0443]	[0.946]	[0.883]	[0.880]	[-2.175]	[2.055]	[2.229]	[2.144]	[2.158]
Past-year Total Return	1.768	4.728	4.847	3.868	4.330	0.535	-1.893	-1.477	-1.532	-1.462
	[0.787]	[1.200]	[1.162]	[0.940]	[1.053]	[0.827]	[-1.645]	[-1.185]	[-1.235]	[-1.178]
Amihud Liquidity Measure	8.162	-0.761	24.46	20.91	25.83	-5.025*	-28.12***	-48.87***	-46.85***	-45.62***
	[0.803]	[-0.0255]	[0.745]	[0.645]	[0.797]	[-1.716]	[-3.221]	[-4.981]	[-4.793]	[-4.664]
Size	-0.0290***	-0.0297***	-0.0140	-0.0127	-0.0128	0.00131	0.000742	0.000362	0.000721	0.00109
	[-3.302]	[-3.229]	[-1.524]	[-1.398]	[-1.413]	[0.518]	[0.276]	[0.132]	[0.264]	[0.398]
Market Capitalization	-0.0477*	-0.0629**	-0.0507*	-0.0433	-0.0407	0.00467	-0.00161	-3.22e-05	0.000806	0.000865
	[-1.760]	[-2.128]	[-1.678]	[-1.451]	[-1.365]	[0.598]	[-0.186]	[-0.00357]	[0.0895]	[0.0961]
Book-to-Market	5.962***	4.022*	0.835	0.634	0.607	-0.821**	-0.340	0.298	0.262	0.264
	[4.641]	[1.743]	[0.356]	[0.274]	[0.263]	[-2.220]	[-0.504]	[0.425]	[0.375]	[0.378]
Institutional Ownership (%)	-21.97***	-27.66***	-16.89**	-16.09**	-16.20**	3.979***	7.266***	2.047	2.486	2.446
	[-5.813]	[-3.873]	[-2.047]	[-1.976]	[-1.992]	[3.657]	[3.482]	[0.830]	[1.012]	[0.996]
Exec. Cash Pay/Total		12.30**	-2.647	-3.568	-4.197		-3.723**	-0.979	-1.287	-1.424
		[1.983]	[-0.372]	[-0.509]	[-0.599]		[-2.055]	[-0.461]	[-0.608]	[-0.673]
Increase in Average Exec. Pay (%)		1.456	0.863	1.106	0.999		-0.815	-1.161*	-1.174*	-1.177*
		[0.696]	[0.397]	[0.516]	[0.466]		[-1.334]	[-1.786]	[-1.815]	[-1.820]
Golden Parachute		-5.024**	6.679**	7.787***	8.090***		-0.388	-1.257	-1.144	-1.112
		[-2.008]	[2.421]	[2.860]	[2.973]		[-0.531]	[-1.525]	[-1.393]	[-1.354]
Board Size			0.322	0.138	0.134			-0.650***	-0.664***	-0.658***

			[0.626]	[0.272]	[0.264]			[-4.225]	[-4.329]	[-4.296]
Fraction of Indep. Dirs			-91.90***	-86.32***	-85.92***			6.675**	7.871**	8.007**
			[-8.717]	[-8.288]	[-8.257]			[2.119]	[2.505]	[2.549]
Classified Board			-4.151*	-1.850	-1.951			1.093	1.955***	1.932***
			[-1.707]	[-0.760]	[-0.802]			[1.503]	[2.663]	[2.632]
Poison Pill			-28.91***	-29.97***	-30.26***			1.252	0.931	0.916
			[-10.48]	[-10.99]	[-11.10]			[1.519]	[1.131]	[1.113]
Unequal Voting Rights			-4.337	-5.374	-5.763			-2.775**	-2.881**	-2.844**
			[-0.941]	[-1.182]	[-1.268]			[-2.016]	[-2.101]	[-2.074]
Vote % Required to Amend Bylaws			-0.00808	-0.00180	-0.00469			0.00120	0.00152	0.00124
			[-0.223]	[-0.0504]	[-0.132]			[0.111]	[0.141]	[0.115]
Supermajority Mergers (%)			-0.243**	-0.278***	-0.265***			0.0786***	0.0800***	0.0821***
			[-2.395]	[-2.779]	[-2.652]			[2.596]	[2.651]	[2.720]
Other Compensation Proposal				-51.46***	-43.99***				4.627	3.202
				[-4.336]	[-3.463]				[1.292]	[0.835]
Say on Pay Proposal				-77.76***	-73.01***				2.804	0.997
				[-6.623]	[-5.860]				[0.792]	[0.265]
Director Election Proposal				-44.96***	-40.19***				8.336**	6.527*
				[-3.933]	[-3.302]				[2.417]	[1.777]
Governance Proposal				-13.63	-51.53**				-3.209	-15.84**
				[-0.950]	[-2.478]				[-0.742]	[-2.525]
Social Proposal				-43.47***	-75.69**				-2.185	9.753
				[-2.847]	[-2.372]				[-0.474]	[1.013]
Other Compensation Proposal*Sh. Sp.					-59.60*					10.56
					[-1.688]					[0.991]
Governance Proposal* Sh. Sp.					10.65					25.84**
					[0.281]					[2.257]
Constant	4.704	10.31	86.29***	133.4***	128.0***	67.94***	65.79***	65.73***	56.97***	58.57***
	[1.370]	[1.418]	[6.352]	[7.518]	[7.031]	[68.71]	[30.96]	[16.19]	[10.64]	[10.66]
Observations	10,331	5,610	4,857	4,857	4,857	10,331	5,610	4,857	4,857	4,857
Adjusted R-squared	0.011	0.014	0.056	0.082	0.084	0.004	0.011	0.017	0.026	0.028

Table 8 – Director Election Proposals Cutting Line Angles and Director Characteristics

This Table reports OLS regressions of midpoints along the first and second dimensions respectively as a function of director characteristics for director elections. In columns (1) and (2), we use the cutting line angle as the dependent variable, while in columns (3) and (4), we replace it with the absolute value of the cutting line angle. Firm and director characteristics are as defined in Tables 1.C and 1.D. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels, respectively.

	(1)	(2)	(3)	(4)
	Angle	Angle	|Angle|	|Angle|
Female	-4.629	-1.943	-1.519*	-0.521
	[-1.544]	[-0.517]	[-1.763]	[-0.480]
Age	0.205*	0.128	-0.0438	-0.0189
	[1.771]	[0.883]	[-1.314]	[-0.453]
Employee Director	13.93***	16.67***	10.85***	8.280***
	[3.028]	[2.786]	[8.210]	[4.783]
Independent Director	-16.88***	-4.228	8.839***	5.662***
	[-4.176]	[-0.776]	[7.610]	[3.594]
Attended <75% of meetings	48.85***	40.04***	-8.126**	-14.68***
	[4.394]	[2.969]	[-2.544]	[-3.762]
Financial Expert	4.230**	5.822**	-0.679	-1.351*
	[2.056]	[2.276]	[-1.149]	[-1.825]
# of Outside Public Boards	1.226	3.175***	-0.139	-0.319
	[1.365]	[2.767]	[-0.539]	[-0.961]
% Controlling Voting Power	-0.125	-0.386*	-0.00887	-0.0410
	[-0.705]	[-1.755]	[-0.174]	[-0.645]
ROA		-8.063		7.803*
		[-0.514]		[1.718]
Dividend Yield		-95.02		-55.48**
		[-1.187]		[-2.396]
Leverage		5.263		3.686**
		[1.016]		[2.459]
Past-year Total Return		8.950*		-1.236
		[1.854]		[-0.885]
Amihud Liquidity Measure		18.53		-30.80***
		[0.491]		[-2.822]

Size		-0.0171		0.00328
		[-1.474]		[0.977]
Market Capitalization		-0.0250		0.00284
		[-0.613]		[0.241]
Book-to-Market		3.241		-0.424
		[1.220]		[-0.551]
Institutional Ownership (%)		-15.07		3.534
		[-1.540]		[1.248]
Exec. Cash Pay/Total		6.919		-1.371
		[0.847]		[-0.580]
Increase in Average Exec. Pay (%)		2.400		-1.238*
		[0.966]		[-1.723]
Golden Parachute		7.641**		-0.921
		[2.376]		[-0.989]
Board Size		0.265		-0.695***
		[0.432]		[-3.914]
Fraction of Indep. Dirs		-96.31***		6.541*
		[-7.559]		[1.774]
Classified Board		-4.705		2.125**
		[-1.594]		[2.488]
Poison Pill		-37.47***		0.629
		[-11.94]		[0.693]
Unequal Voting Rights		-9.383*		-3.857**
		[-1.810]		[-2.572]
Vote % Required to Amend ByLaws		-0.0116		-0.0104
		[-0.277]		[-0.860]
Supermajority Mergers (%)		-0.214*		0.0879**
		[-1.785]		[2.539]
Constant	-10.96	75.91***	65.37***	62.52***
	[-1.297]	[4.006]	[26.92]	[11.40]
Observations	5,871	3,590	5,871	3,590
Adjusted R-squared	0.024	0.083	0.014	0.032