INVESTOR IDEOLOGY

Patrick Bolton   *Columbia University*

Tao Li   *University of Florida*

Enrichetta Ravina   *Northwestern University*

Howard Rosenthal   *NYU*

June 2019

MOTIVATION & RESEARCH QUESTION

In this paper, we take a first look at institutional investor ideology, estimated from the way they vote on the proxy ballot of the companies they are shareholders of.

We focus on Institutional Investors, mutual fund families and public pension funds, as

- they cast the determining votes in most proxy ballots

- are repeat players

- and consequently shape a wide range of corporate

    governance, social and economic issues.

We employ a **spatial model of proxy voting**, W-NOMINATE, and map institutional investors, and the proposals they vote on, on a **two-dimensional space.**

· · ·

A vote is ***ideological*** when positions are predictable across a wide set of issues (Converse, 1964).

The **first dimension**, is a ***socially vs. profit oriented*** dimension. The funds on the ***left*** support a more social and environment friendly orientation of the firm and fewer say on pay proposals; the funds on the ***right*** are more strictly "money conscious".

We find ***significant heterogeneity*** in fund ideology (preferences vs. beliefs).

ISS is located in the center, to the left of most large mutual funds which tend to be center-right. Pension funds are mostly left and center-left.

A **second dimension** reflects a more traditional governance view, seeing the opposition of ***management disciplinarian*** investors, led by Glass-Lewis, and more ***management friendly*** ones.

THEORETICAL BACKGROUND

- Grossman and Stiglitz (1976) & Grossman and Hart, (1979): in a competitive economy with complete markets there is **unanimity** among shareholders on the objectives of the firm.

- Only **shareholder value maximization** is compatible with the **no-arbitrage equilibrium** condition in financial markets.

- Milton Friedman (1970): shareholders prefer value maximization because **negative externalities are best addressed through public policy**

- **When a takeover is not an immediate threat, socially-minded shareholders may well prefer a non-value-maximizing policy that causes less negative externalities**

- Especially if externalities are difficult to undo, and if the government cannot be relied on to internalize all socially harmful activities (Hart and Zingales, 2016)

SHAREHOLDERS AS CITIZENS

Larry Fink, CEO of Blackrock in his annual letter to CEOs., "*A Sense of Purpose*", January 2018;

"We also see many governments failing to prepare for the future, on issues ranging from retirement and infrastructure to automation and worker retraining. As a result, society increasingly is turning to the private sector and asking that companies respond to broader societal challenges."

Dov Seidman, CEO of LRN quoted by Thomas Friedman in the NYT column of March 27, 2018 :

"The world is fused. So there no places anymore to stand to the side and claim neutrality — to say, 'I am just a businessperson' or 'I am just running a platform.' …the business of business is no longer just business. The business of business is now society."

RELATED LITERATURE

- **Corporate Governance and Proxy Voting**

    Gillan and Starks (2000), Davis and Kim (2007), Ferri et al. (2012)

    Bethel and Gillan (2002), …, McCahery, Sautner and Starks (2016).

    Perspective is that institutional investor voting is mostly concerned with **corporate governance (agency) issues** *and does not reflect a broader ideological premise*

- **The Role of Institutional Investors in Corporate Governance and the Economy**

    Index Funds and Corporate Governance: Appel et al., 2016; Bebchuk and Hirst, 2018

    Common ownership: Schmaltz, 2018

MAIN FEATURES OF OUR METHODOLOGY

- We take a *political* approach pioneered by **Poole and Rosenthal (1985)** to study voting in Congress: **W-NOMINATE spatial model.**

- **Random utility framework (McFadden, 1976)** in which Funds with heterogeneous preferences choose between alternatives characterized by attributes that are unobserved to the researchers, but observed (and acted upon) by them.

- Fund preferences are assumed to be **single-peaked and symmetric**, and we assume they vote for the alternative **closer** to this peak (*ideal point*), allowing for some error.

- While funds may have preferences across an array of issues, their attitudes appear to be organized by position **along a small number of latent dimensions** (*ideology*).

MAIN FEATURES OF OUR METHODOLOGY

- For each fund voting, we estimate the coordinates in the basic space; and for each proposal, we estimate the coordinates of Yay and Nay outcomes and their midpoint, on that same basic space.

- Our *method* for finding the dimensions is *blind* both *to the features of the institutions voting and the features of the proposals they vote on.*

This allow for a broad interpretation of the diverse ideal points of asset managers and owners which goes beyond pure shareholder value considerations.

SPATIAL MODELS

From observed votes for and against proxy proposals estimate:

1. an **ideal point** along one or more dimensions for each institutional investor, and **a midpoint/cutting line** for each proposal.

2. a **signal-to-noise parameter** (strength of spatial component of utility relative to random errors)

3. We calculate measures of **"fit"** (geometric mean probability of observed choices, percentage correctly classified, proportionate-reduction in error)

4. Provide **substantive interpretation** (left-right, social-greedy) of dimensions.

EXAMPLE

VOTING PATTERNS OF CALPERS, FIDELITY, AND GAMCO

| 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

THE GEOMETRY OF PROXY VOTING IN 1 DIM

Let the outcomes Yay and Nay on the jth proposal $(j=1,\ldots,q)$ be represented by O_{jy} and O_{jn}, respectively. Then, the midpoint
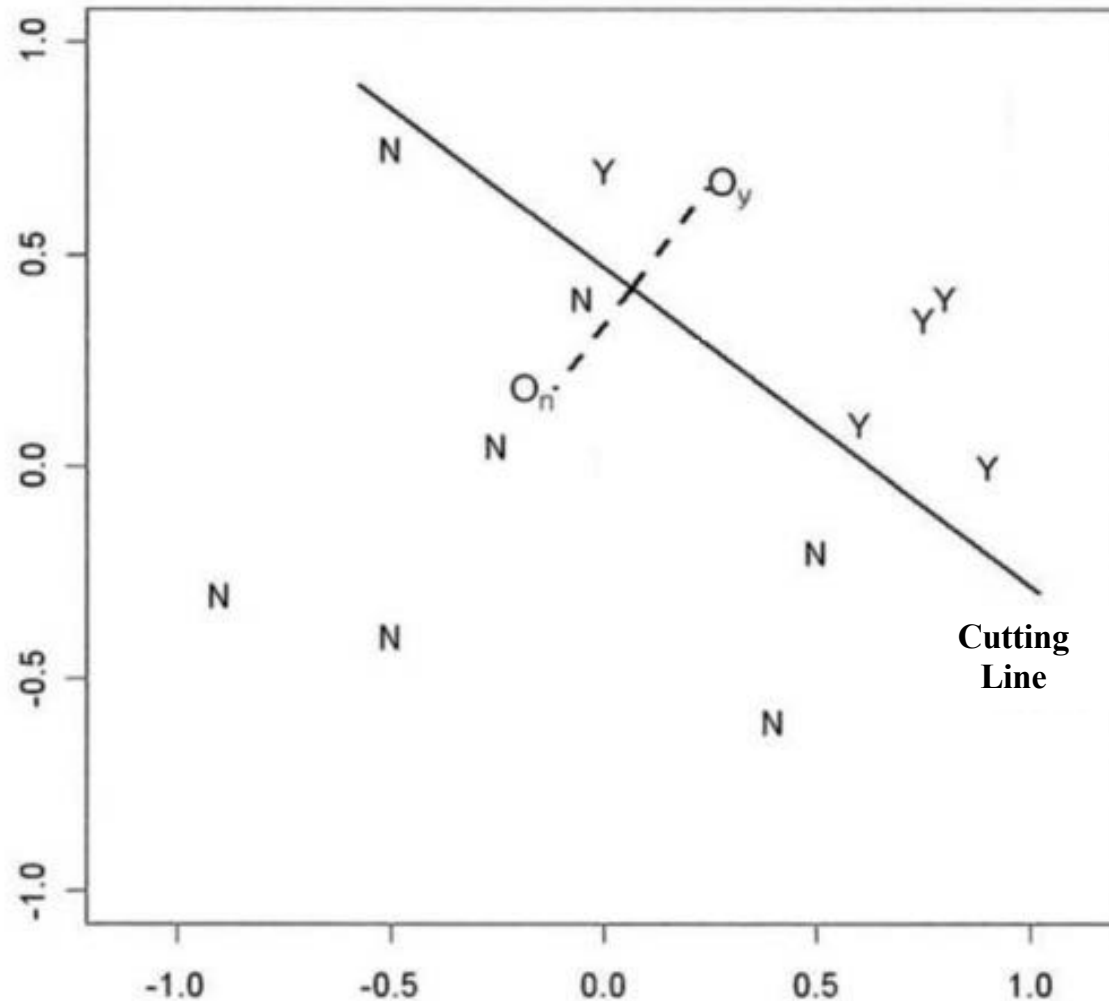
$$Z_j = \frac{O_{jy} + O_{jn}}{2}$$

separates the funds *predicted* to vote Yes from those predicted to vote No.

In 1 Dimension, Z_j is a point:

Funds	x_1	x_2	x_3	x_4	x_5	x_6
1	Y	N	N	N	N	N
2	Y	Y	N	N	N	N
3	Y	Y	Y	N	N	N
4	Y	Y	Y	Y	N	N
5	Y	Y	Y	Y	Y	N
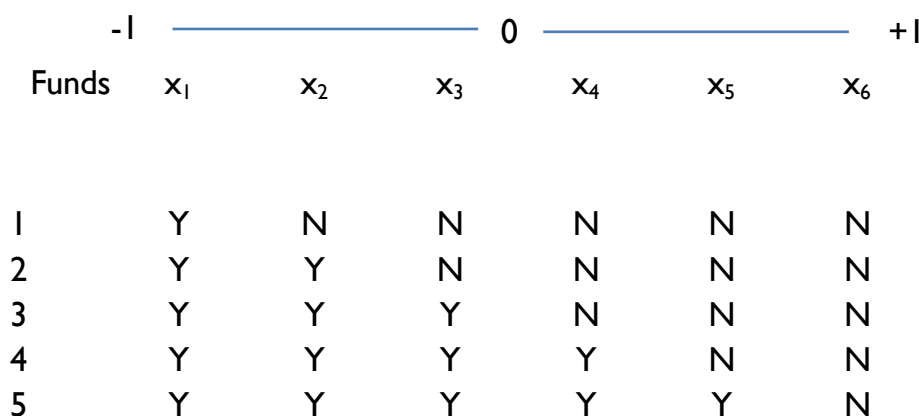
THE GEOMETRY OF PROXY VOTING IN 2 DIM

In 2 Dimensions, Z_j is a cutting line:

W-NOMINATE METHODOLOGY

If an error is present then the problem of estimating the cutting lines is equivalent to a probit or logit.

Random utility model: a fund's utility function consists of

(a) a <u>deterministic component</u> that is a function of the distance between the fund's ideal point and the Yes and No alternatives.

(b) A <u>stochastic component</u>.

Voting is probabilistic, and estimation is done by iteration.

W-NOMINATE METHODOLOGY

Fund i's utility for the Yes and No outcomes on proposal j is:

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

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

P(Fund votes Yes) = $P(U_{ijY} > U_{ijN}) = P(\varepsilon_{ijN} - \varepsilon_{ijY} < u_{ijY} - u_{ijN})$

s.t. P(Yes)+P(No)=1

If we assume a normal distribution for the utility function and that the errors are logit distributed, we get that the probability a fund votes Yes is:

$$P_{ijy} = P(U_{ijy} > U_{ijn}) = P(\varepsilon_{ijn} - \varepsilon_{ijy} < u_{ijy} - u_{ijn})$$

$$= \int_{-\infty}^{u_{ijn} - u_{ijy}} \frac{e^{-z}}{(1 + e^{-z})^2} \, dz = \frac{e^{u_{ijy}}}{e^{u_{ijy}} + e^{u_{ijn}}}.$$

W-NOMINATE METHODOLOGY

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, $P_{ij\tau}$ is the probability of voting for the choice τ and $C_{ij\tau}=1$ if the fund's actual choice 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

Alternating Maximum Likelihood Procedure:

- Start with an initial configuration of fund positions and signal-to-noise ratio, β, and salience weight w, where the initial fund positions are calculated based on agreement scores.
- Proceed with the Three-step iterative algorithm (W-NOMINATE):
  1) Find the the outcome coordinates for each proposal that max the likelihood function.
  2) Max the likelihood function over β and w, holding the fund and proposal coordinates fixed.
  3) Hold the β and w, and proposal coordinates constant and search for fund ideal points that max the likelihood function.
- Repeat the three steps above until convergence.

Objective: maximize the probability that the model assigns to the observed votes.

THIS PAPER

- We conduct an empirical analysis of **15,035 proposals** by mutual fund families and pension funds for the **fiscal year 2011-2012**, for the Russell 3000 firms.

- **229 Mutual Fund Families; 37 Public Pension Funds**

- **Fund within the same family tend to vote in the same way:**

  - Only in 1.11% of the obs (proposal-fund pairs) did a fund vote differently than the family it belongs to.

- We estimate the ideal points of **ISS, Glass Lewis,** and **Management** as well.

- Work in progress: **evolution of ideal points over time**

INVESTOR IDEOLOGY: 1 DIMENSION
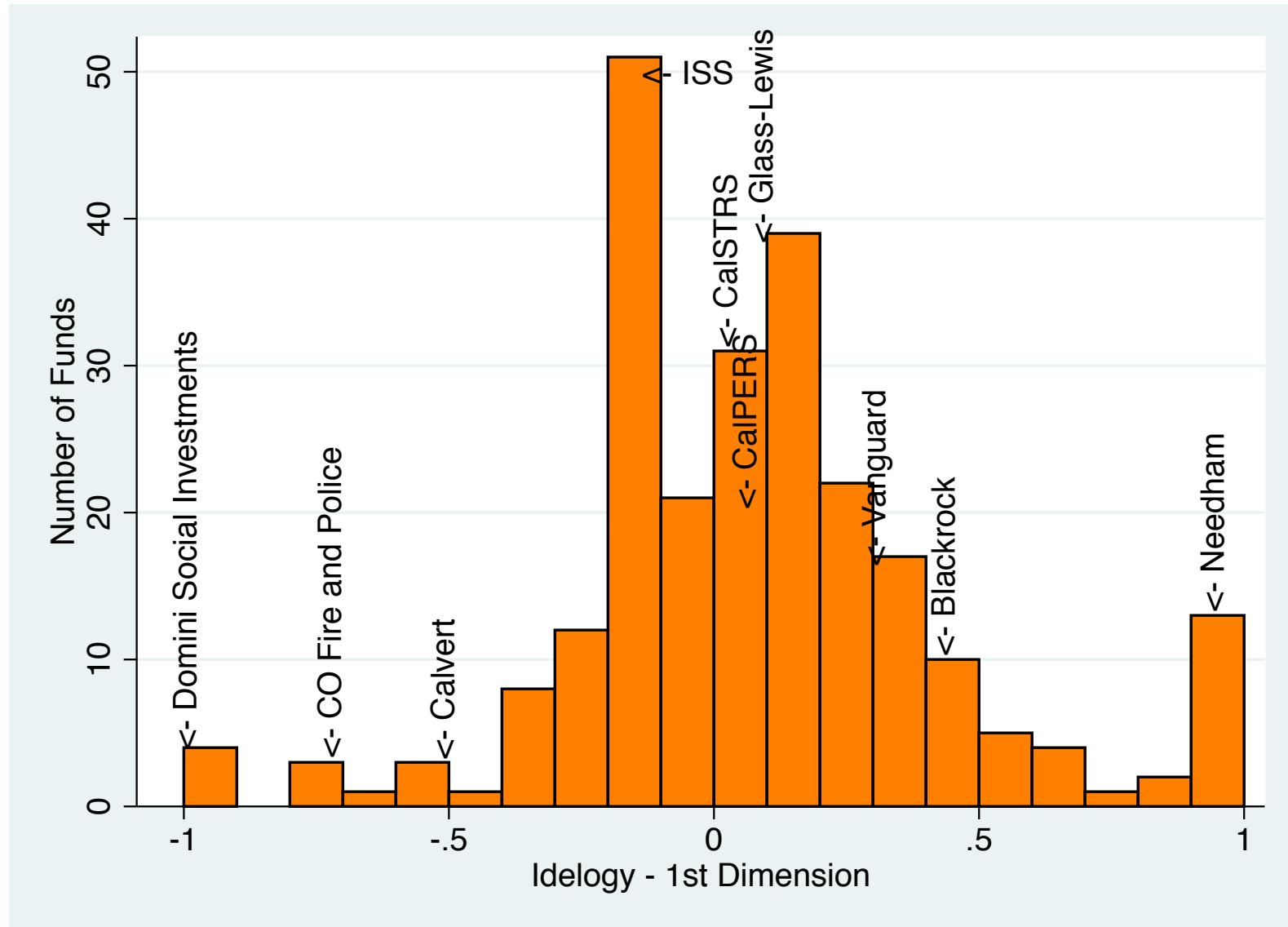
INVESTOR IDEOLOGY: 1 DIMENSION
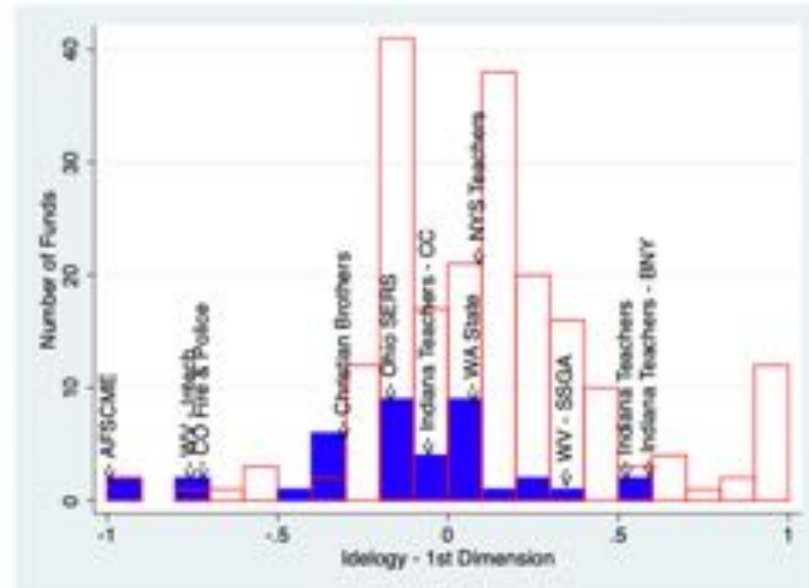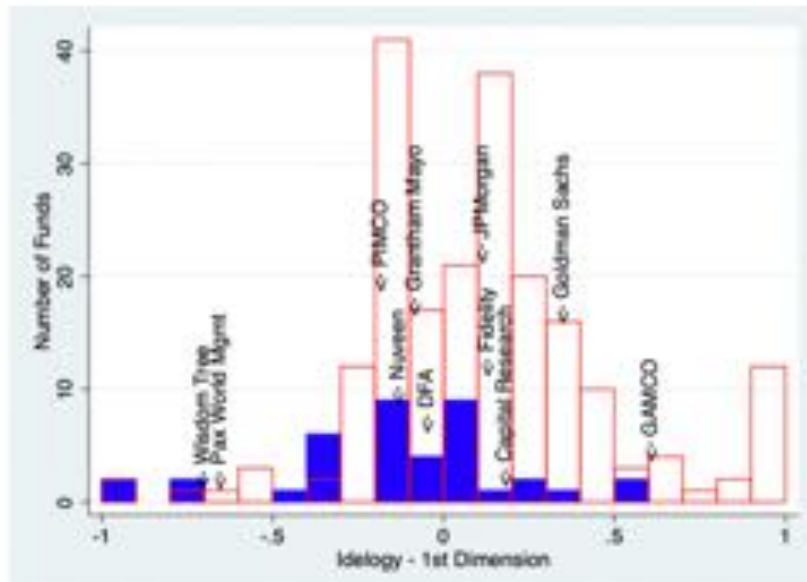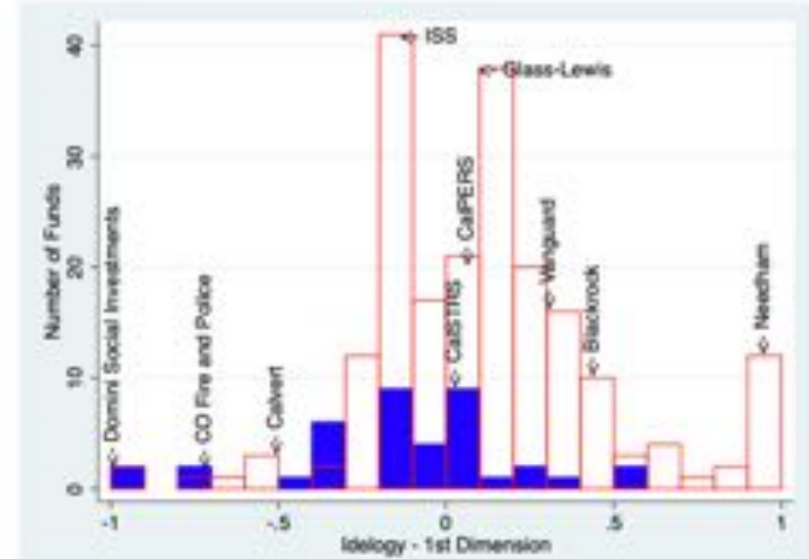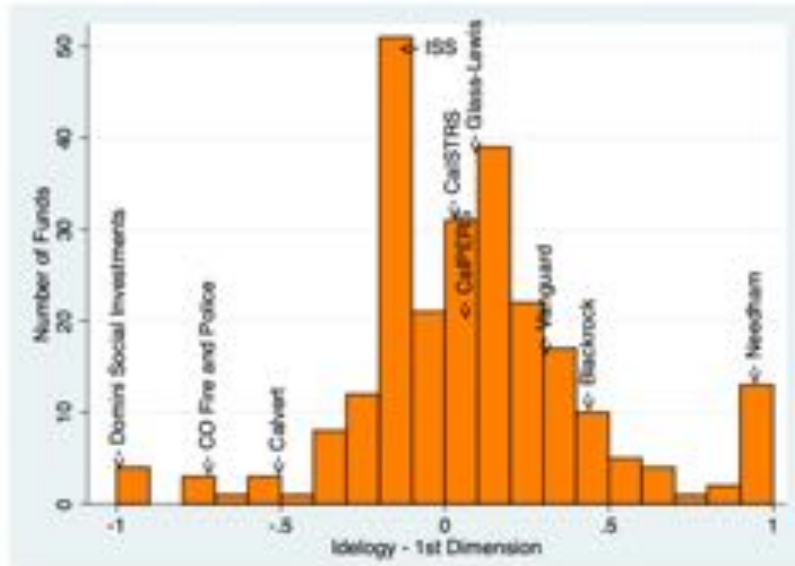
Domini Social Investments

- Investment Philosophy: "*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.*"

Needham Investment Management, LLC

Investment philosophy as focusing on investments with "an emphasis on tax-efficient capital appreciation and preservation".

Leuthold Weeden Capital Management

Investment philosophy based on "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,"

2 DIMENSIONS
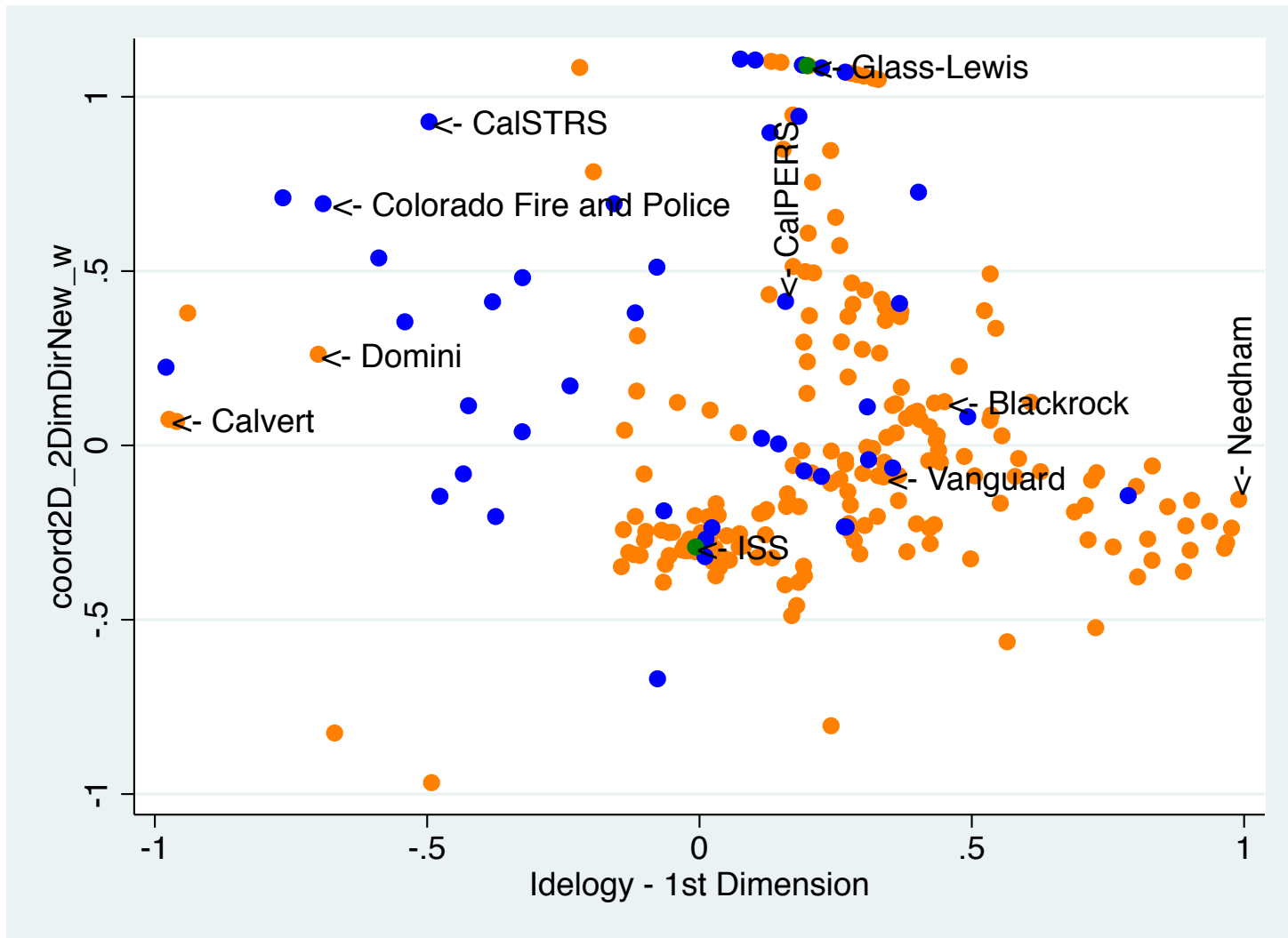
PROPOSAL ANALYSIS: MIDPOINTS

Definition: Midpoint is the point at which the probabilities of voting "For" and "Against" are both 0.5.

The point on the line that separates the predicted "For" the proposal from the predicted "Against"

The left end is chosen for the midpoint if left voters are more likely to go against the majority than voters on the right, and vice-versa for proposals at the right end, ***regardless from what side the Yea votes are.***

There are 375 of the 3,230 proposals with midpoints at -1, and 128 at +1. These proposals are not informative, i.e. the proportional reduction of error (PRE) for these proposals is zero.

PROPOSAL ANALYSIS:
MIDPOINTS 1ST DIM BY PROPOSAL TYPE
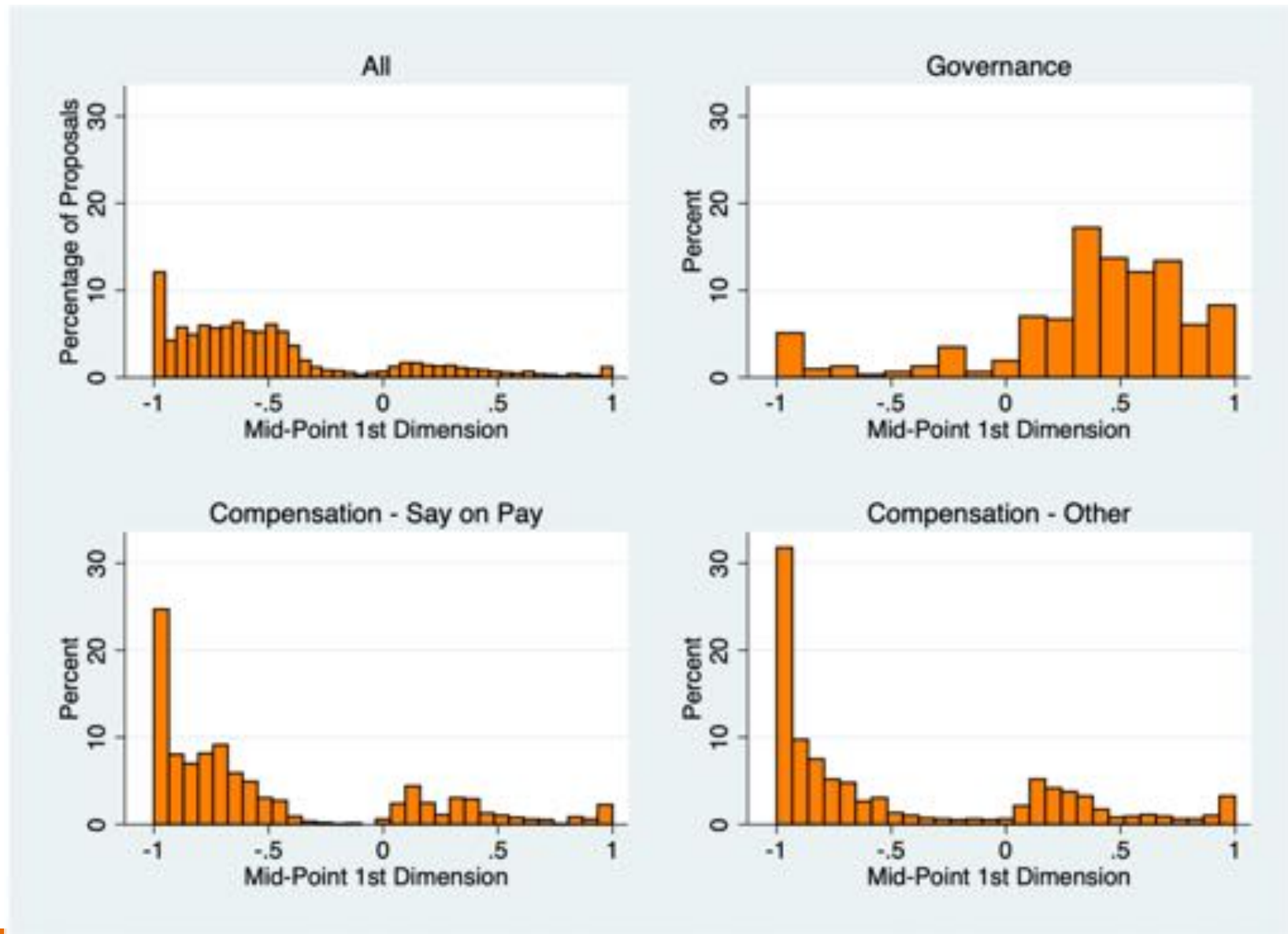
PROPOSAL ANALYSIS:
MIDPOINTS 1ST DIM BY PROPOSAL TYPE

MIDPOINTS 1ST DIM AND FIRM CHARACTERISTICS

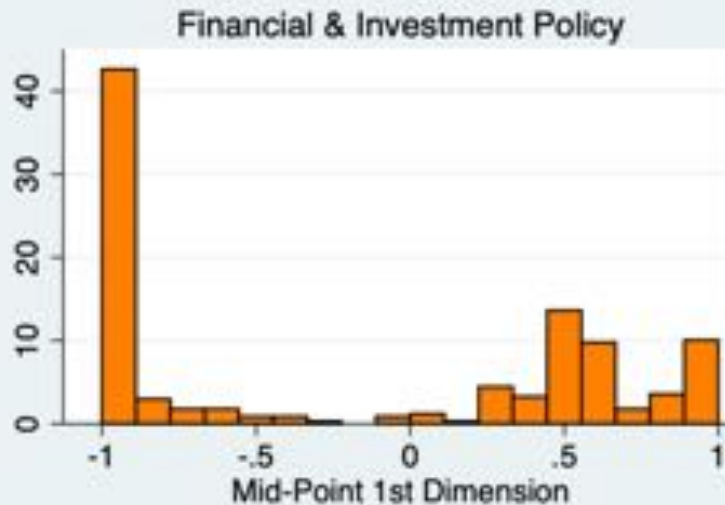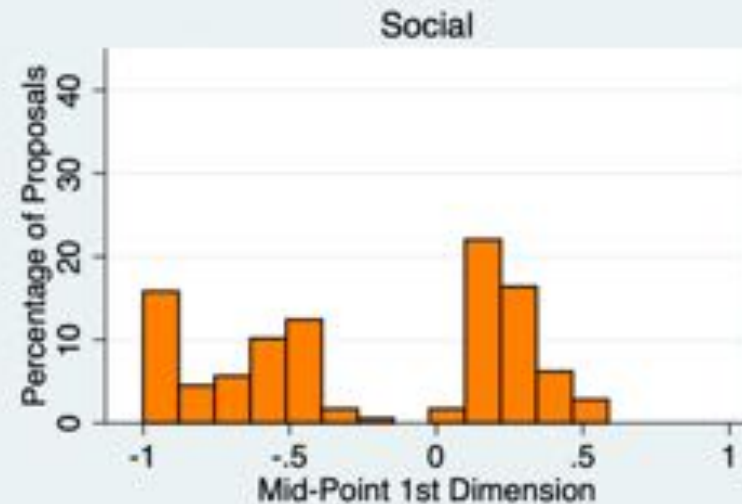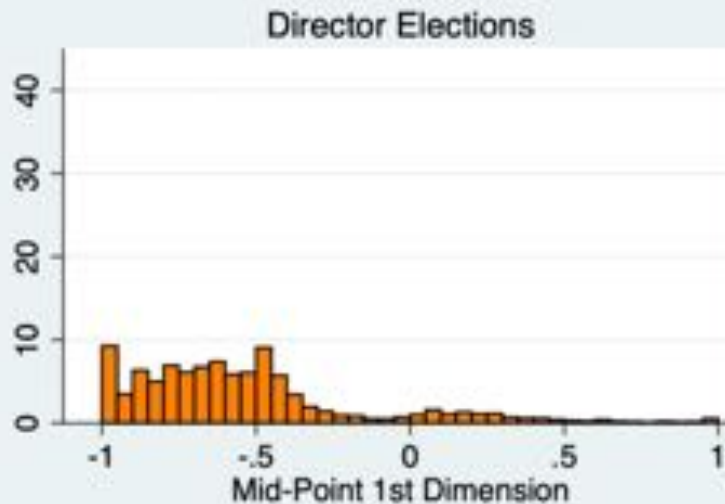|	(1)	(2)	(3)	(4)	(5)
	Ideal Point 1st D	Ideal Point 1st D	Ideal Point 1st D	Ideal Point 1st D	Ideal Point 1st D
Shareholder-Sponsored Proposal	0.701***	0.782***	0.788***	0.515***	0.474***
	[29.54]	[31.77]	[30.95]	[16.26]	[12.22]
ROA	-0.0182	0.0463	-0.00941	-0.0321	-0.0120
	[-0.636]	[0.653]	[-0.119]	[-0.416]	[-0.157]
Dividend Yield	0.117	-0.184	0.115	0.168	0.162
	[0.823]	[-0.883]	[0.536]	[0.801]	[0.780]
Leverage	0.0140**	-0.0150	0.0121	0.00752	0.00720
	[2.235]	[-0.641]	[0.475]	[0.304]	[0.293]
Past-year Total Return	-0.0319**	-0.0324	-0.0583**	-0.0575**	-0.0635***
	[-2.368]	[-1.453]	[-2.405]	[-2.437]	[-2.712]
Amihud Liquidity Measure	0.456***	0.847***	0.583***	0.485***	0.426**
	[7.483]	[5.011]	[3.051]	[2.613]	[2.306]
Size	-0.00012**	-5.62e-05	-6.96e-05	-7.53e-05	-7.72e-05
	[-2.296]	[-1.081]	[-1.305]	[-1.452]	[-1.494]
Market Capitalization	-0.0012***	-0.00094***	-0.00058***	-0.00052***	-0.00054***
	[-7.208]	[-5.627]	[-3.310]	[-3.059]	[-3.158]
Book-to-Market	0.000911	-0.0209	-0.0186	-0.0168	-0.0164
	[0.118]	[-1.602]	[-1.359]	[-1.265]	[-1.241]
Institutional Ownership	-0.227***	0.0110	-0.0175	-0.0399	-0.0419
	[-10.03]	[0.271]	[-0.365]	[-0.856]	[-0.904]
Exec. Cash Pay/Total		0.121***	-0.00727	-0.00527	0.00404
		[3.458]	[-0.176]	[-0.131]	[0.101]
Increase in Average Exec. Pay (%)		0.0229*	0.0116	0.0127	0.0141
		[1.933]	[0.914]	[1.032]	[1.157]

Golden Parachute		-0.0551***	-0.0243	-0.0252	-0.0293*
		[-3.897]	[-1.517]	[-1.615]	[-1.892]
Board Size			-0.0140***	-0.0144***	-0.0142***
			[-4.664]	[-4.933]	[-4.910]
Fraction of Indep. Dirs			-0.394***	-0.397***	-0.404***
			[-6.430]	[-6.657]	[-6.819]
Classified Board			0.0338**	0.0119	0.0115
			[2.387]	[0.860]	[0.837]
Poison Pill			0.0653***	0.0675***	0.0726***
			[4.070]	[4.324]	[4.680]
Unequal Voting Rights			0.140***	0.137***	0.141***
			[5.224]	[5.267]	[5.456]
Vote % Required to Amend Bylaws			-8.93e-05	-8.70e-05	-3.95e-05
			[-0.424]	[-0.425]	[-0.194]
Supermajority Mergers (%)			-0.00202***	-0.00228***	-0.00244***
			[-3.423]	[-3.983]	[-4.292]
Director Election Proposal				0.0850***	0.0884***
				[4.647]	[4.867]
Governance Proposal				0.590***	0.648***
				[9.055]	[9.345]
Social Proposal				0.578***	1.099***
				[14.03]	[11.37]
Compensation Proposal Sh Sponsrd					0.399***
					[5.682]
Financial Policy Proposal Sh Sponsrd					-0.381*
					[-1.957]
Governance Proposal Sh Sponsrd					-0.537***
					[-4.943]
Constant	-0.396***	-0.620***	-0.0463	-0.0125	-0.00428
	[-19.26]	[-15.07]	[-0.586]	[-0.162]	[-0.0561]
Observations	10,331	5,610	4,857	4,857	4,857
Adjusted R-squared	0.102	0.157	0.185	0.230	0.241

	(6) Ideal Point 2nd D	(7) Ideal Point 2nd D	(8) Ideal Point 2nd D	(9) Ideal Point 2nd D	(10) Ideal Point 2nd D
holder-Sponsored Proposal	-0.0133	-0.0139	-0.0136	0.00787	0.0423
	[-0.762]	[-0.771]	[-0.759]	[0.345]	[1.505]
	-0.0890***	-0.204***	-0.204***	-0.214***	-0.209***
	[-4.243]	[-3.943]	[-3.671]	[-3.860]	[-3.779]
lend Yield	0.460***	0.0787	0.119	0.126	0.126
	[4.413]	[0.517]	[0.783]	[0.835]	[0.834]
age	0.00688	0.0209	0.0205	0.0210	0.0221
	[1.498]	[1.224]	[1.146]	[1.180]	[1.241]
ear Total Return	0.00787	0.0164	0.0209	0.0187	0.0168
	[0.796]	[1.008]	[1.226]	[1.103]	[0.994]
ud Liquidity Measure	-0.226***	-1.031***	-0.603***	-0.593***	-0.617***
	[-5.046]	[-8.347]	[-4.497]	[-4.437]	[-4.613]
	-2.18e-06	-5.59e-05	4.91e-06	3.88e-06	3.70e-06
	[-0.0566]	[-1.471]	[0.131]	[0.104]	[0.0990]
et Capitalization	0.000500***	0.000256**	0.000235*	0.000247**	0.000229*
	[4.195]	[2.094]	[1.902]	[2.012]	[1.859]
-to-Market	0.000143	0.00215	-0.0121	-0.0128	-0.0129
	[0.0254]	[0.226]	[-1.266]	[-1.343]	[-1.352]
utional Ownership	-0.127***	-0.120***	-0.0284	-0.0230	-0.0216
	[-7.649]	[-4.078]	[-0.841]	[-0.685]	[-0.642]
. Cash Pay/Total		0.0242	-0.0185	-0.0212	-0.0182
		[0.944]	[-0.636]	[-0.732]	[-0.631]
ase in Average Exec. Pay (%)		0.0129	0.0176**	0.0181**	0.0185**
		[1.492]	[1.977]	[2.045]	[2.088]

MIDPOINTS

2ND DIM AND FIRM CHARS

Golden Parachute		-0.0469***	-0.00451	-0.00141	-0.00211
		[-4.531]	[-0.400]	[-0.126]	[-0.188]
Board Size			0.0121***	0.0119***	0.0118***
			[5.752]	[5.660]	[5.631]
Fraction of Indep. Dirs			-0.269***	-0.259***	-0.263***
			[-6.246]	[-6.038]	[-6.132]
Classified Board			-0.0254**	-0.0181*	-0.0187*
			[-2.557]	[-1.809]	[-1.871]
Poison Pill			-0.112***	-0.114***	-0.112***
			[-9.906]	[-10.15]	[-10.02]
Unequal Voting Rights			-0.00186	-0.00469	-0.00330
			[-0.0990]	[-0.250]	[-0.176]
Vote % Required to Amend Bylaws			0.000267*	0.000286*	0.000293**
			[1.806]	[1.943]	[1.990]
Supermajority Mergers (%)			-0.000605	-0.000646	-0.000692*
			[-1.461]	[-1.566]	[-1.679]
Director Election Proposal				-0.0833***	-0.0821***
				[-6.333]	[-6.246]
Governance Proposal				0.106**	0.119**
				[2.267]	[2.375]
Social Proposal				-0.0685**	0.131*
				[-2.313]	[1.875]
Compensation Proposal Sh Sponsrd					-0.0322
					[-0.633]
Financial Policy Proposal Sh Sponsrd					-0.126
					[-0.891]
Governance Proposal Sh Sponsrd					-0.255***
					[-3.245]
Constant	0.117***	0.190***	0.233***	0.232***	0.236***
	[7.760]	[6.320]	[4.196]	[4.199]	[4.266]
Observations	10,331	5,610	4,857	4,857	4,857
Adjusted R-squared	0.014	0.030	0.065	0.075	0.076

CUTTING LINES

Definition: the cutting line is the line in the two-dimensional space that separates the predicted "For" the proposal from the predicted "Against".

It is the line on which the probabilities of voting "For" and "Against" are both 0.5.

For each proposal, the cutting line tells us the coalitions of investors.

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.
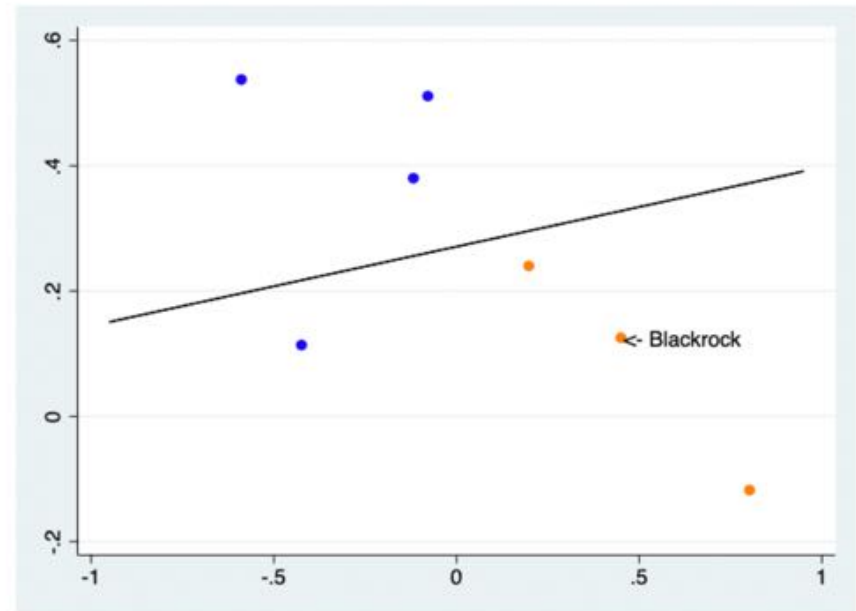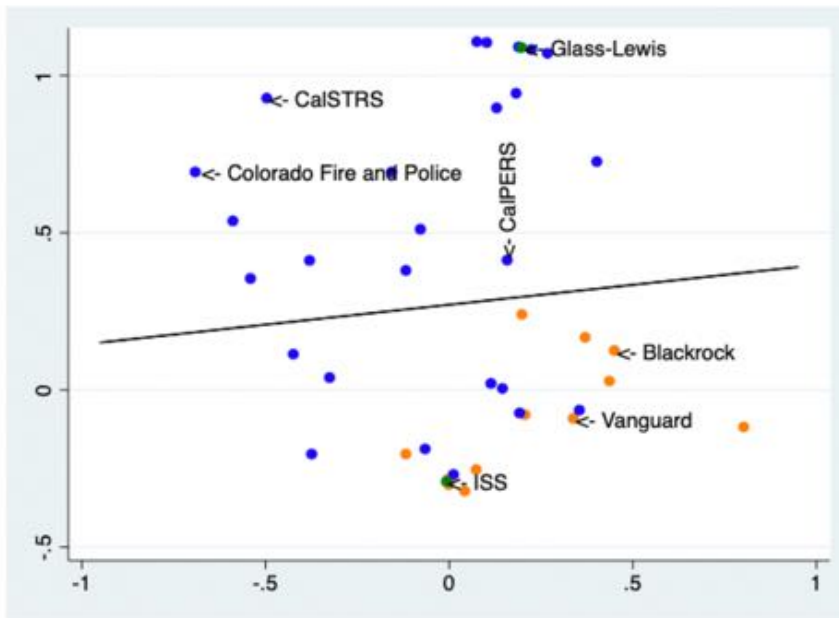
CUTTING LINES - EXAMPLES
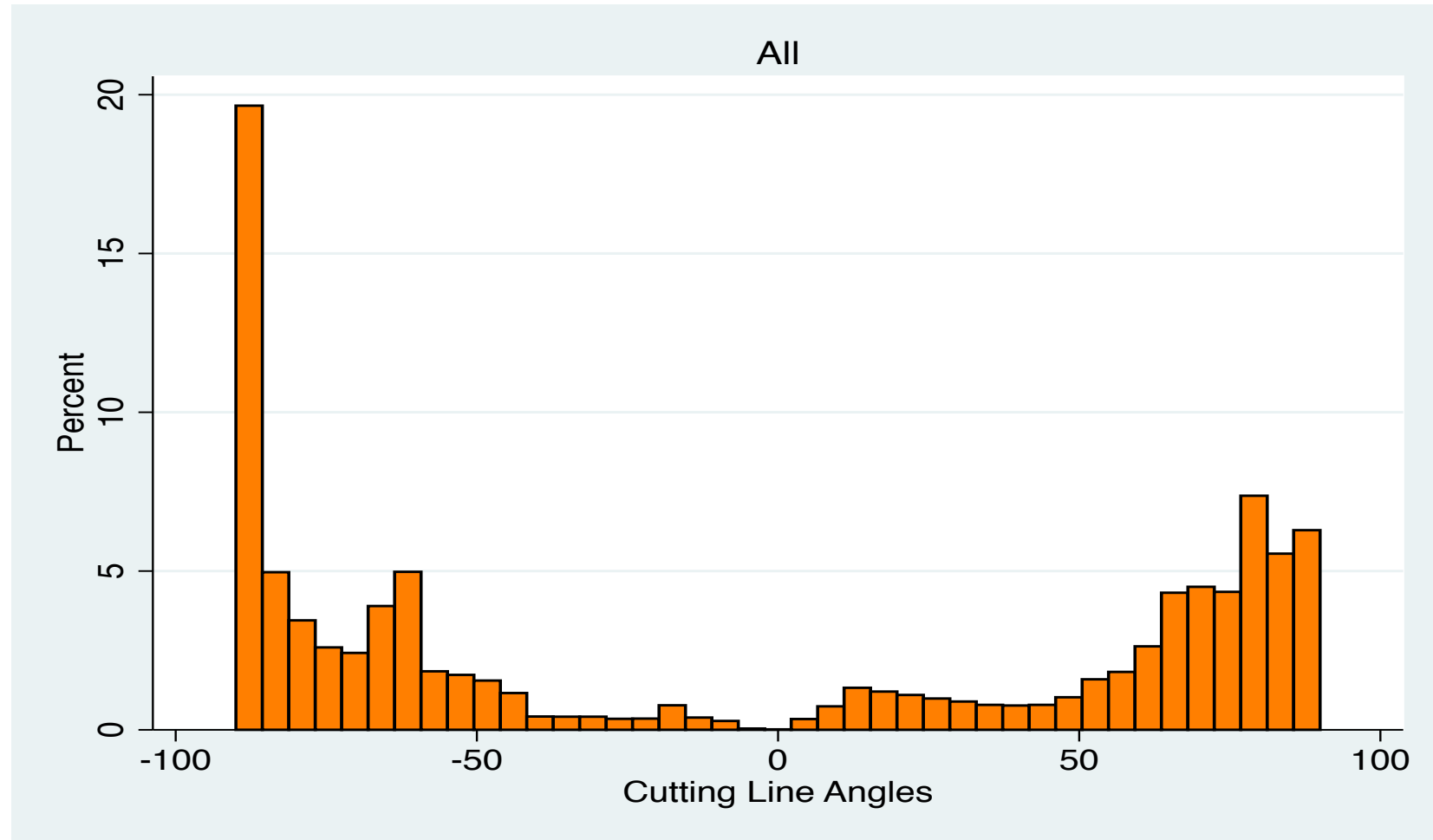
Say on Pay Vote at Citigroup – April 17th 2012.
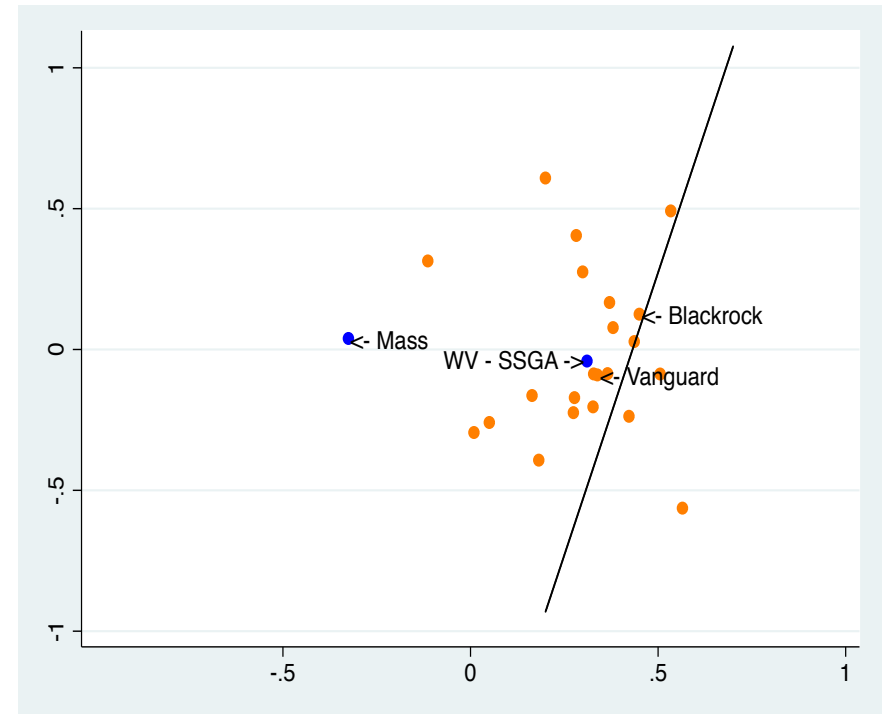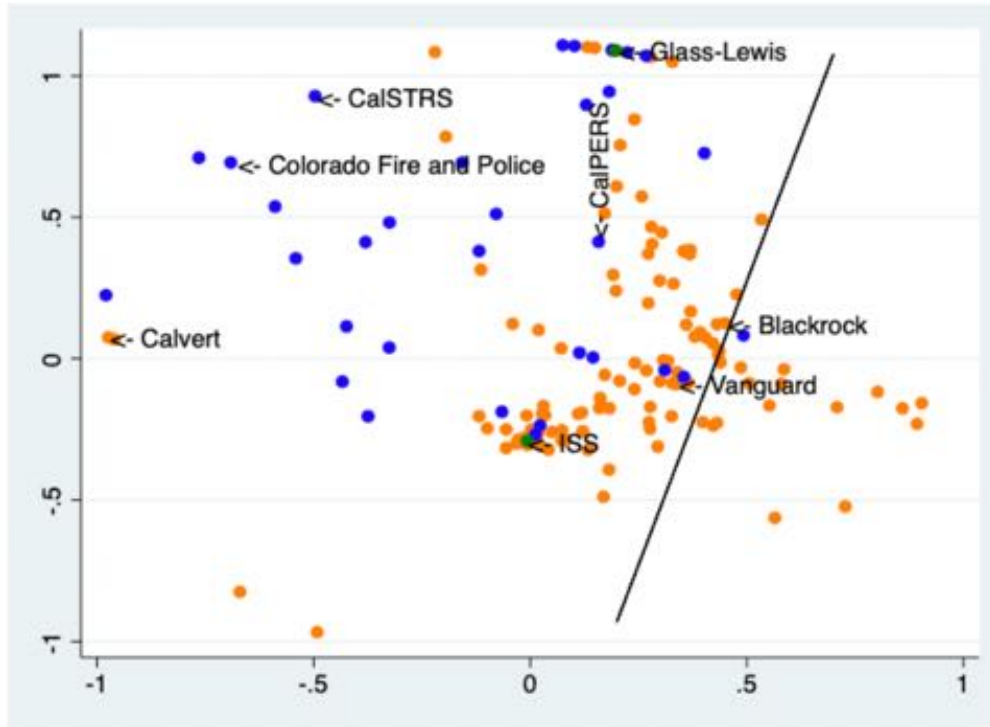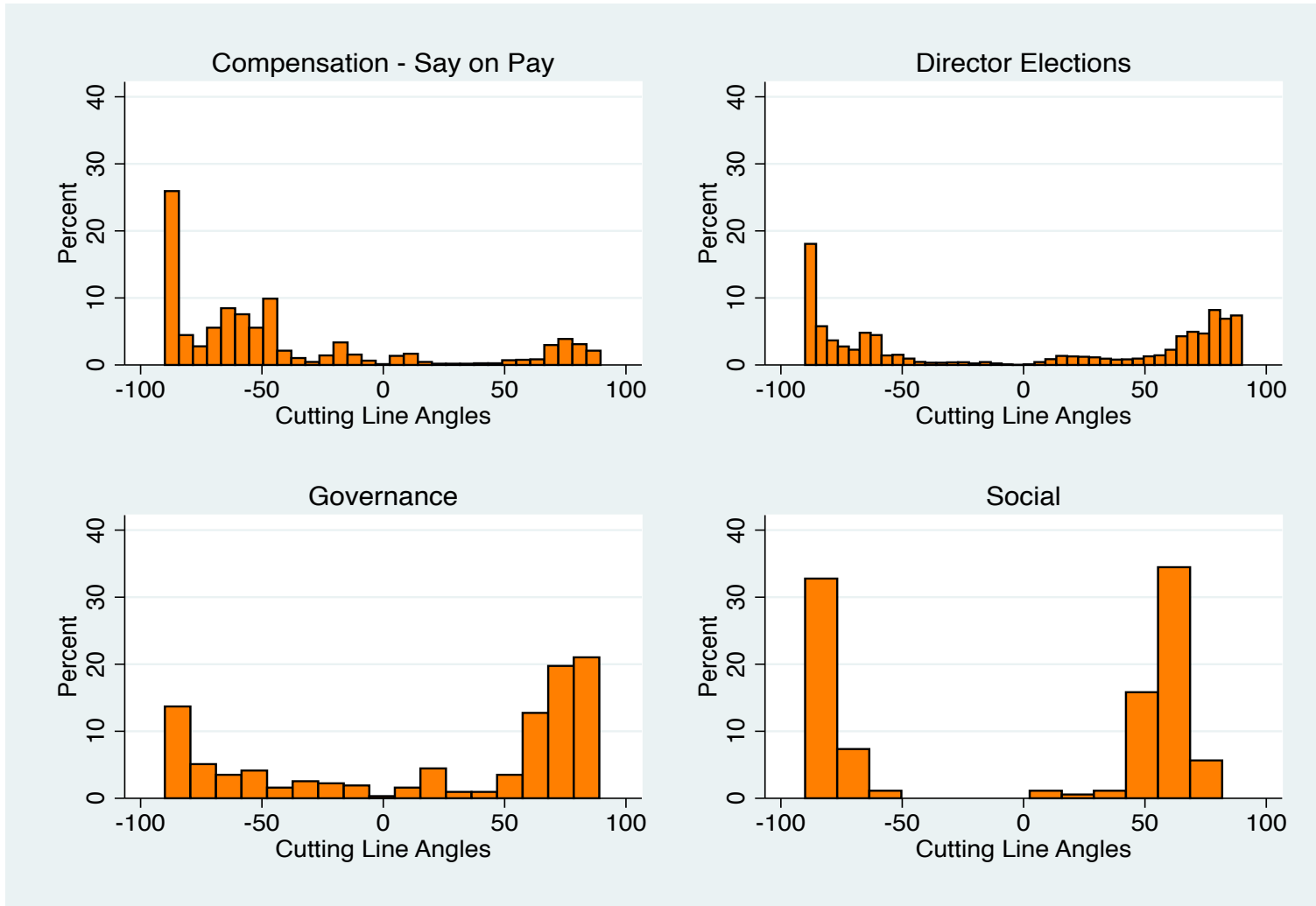
CUTTING LINES - EXAMPLES

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

CUTTING LINE ANGLES

CUTTING LINE ANGLES BY PROPOSAL TYPE

	(6) |Angle|	(7) |Angle|	(8) |Angle|	(9) |Angle|	(10) |Angle|
Shareholder-Sponsored Proposal	-1.896*	-1.506	-1.625	7.333***	-6.445
	[-1.661]	[-1.185]	[-1.242]	[2.637]	[-0.637]
ROA	-0.809	7.762**	8.901**	8.774**	8.424**
	[-0.589]	[2.120]	[2.186]	[2.164]	[2.077]
Dividend Yield	9.116	-13.83	-13.46	-12.32	-12.51
	[1.334]	[-1.287]	[-1.216]	[-1.117]	[-1.135]
Leverage	-0.654**	2.482**	2.914**	2.792**	2.808**
	[-2.175]	[2.055]	[2.229]	[2.144]	[2.158]
Past-year Total Return	0.535	-1.893	-1.477	-1.532	-1.462
	[0.827]	[-1.645]	[-1.185]	[-1.235]	[-1.178]
Amihud Liquidity Measure	-5.025*	-28.12***	-48.87***	-46.85***	-45.62***
	[-1.716]	[-3.221]	[-4.981]	[-4.793]	[-4.664]
Size	0.00131	0.000742	0.000362	0.000721	0.00109
	[0.518]	[0.276]	[0.132]	[0.264]	[0.398]
Market Capitalization	0.00467	-0.00161	-3.22e-05	0.000806	0.000865
	[0.598]	[-0.186]	[-0.00357]	[0.0895]	[0.0961]
Book-to-Market	-0.821**	-0.340	0.298	0.262	0.264
	[-2.220]	[-0.504]	[0.425]	[0.375]	[0.378]
Institutional Owenership (%)	3.979***	7.266***	2.047	2.486	2.446
	[3.657]	[3.482]	[0.830]	[1.012]	[0.996]
Exec. Cash Pay/Total		-3.723**	-0.979	-1.287	-1.424
		[-2.055]	[-0.461]	[-0.608]	[-0.673]
Increase in Average Exec. Pay (%)		-0.815	-1.161*	-1.174*	-1.177*
		[-1.334]	[-1.786]	[-1.815]	[-1.820]
Golden Parachute		-0.388	-1.257	-1.144	-1.112
		[-0.531]	[-1.525]	[-1.393]	[-1.354]
Board Size			-0.650***	-0.664***	-0.658***
			[-4.225]	[-4.329]	[-4.296]
Fraction of Indep. Dirs			6.675**	7.871**	8.007**
			[2.119]	[2.505]	[2.549]
Classified Board			1.093	1.955***	1.932***
			[1.503]	[2.663]	[2.632]

ABSOLUTE VALUE OF CUTTING LINE ANGLES REGRESSIONS

Poison Pill		1.252	0.931	0.916	
		[1.519]	[1.131]	[1.113]	
Unequal Voting Rights		-2.775**	-2.881**	-2.844**	
		[-2.016]	[-2.101]	[-2.074]	
Vote % Required to Amend Bylaws		0.00120	0.00152	0.00124	
		[0.111]	[0.141]	[0.115]	
Supermajority Mergers (%)		0.0786***	0.0800***	0.0821***	
		[2.596]	[2.651]	[2.720]	
Other Compensation Proposal			4.627	3.202	
			[1.292]	[0.835]	
Say on Pay Proposal			2.804	0.997	
			[0.792]	[0.265]	
Director Election Proposal			8.336**	6.527*	
			[2.417]	[1.777]	
Governance Proposal			-3.209	-15.84**	
			[-0.742]	[-2.525]	
Social Proposal			-2.185	9.753	
			[-0.474]	[1.013]	
Other Compensation Proposal*Sh. Sp.				10.56	
				[0.991]	
Governance Proposal* Sh. Sp.				25.84**	
				[2.257]	
Constant	67.94***	65.79***	65.73***	56.97***	58.57***
	[68.71]	[30.96]	[16.19]	[10.64]	[10.66]
Observations	10,331	5,610	4,857	4,857	4,857
Adjusted R-squared	0.004	0.011	0.017	0.026	0.028

ABSOLUTE VALUE OF CUTTING LINE ANGLES REGRESSIONS – DIRECTOR ELECTIONS

|	(3) |Angle|	(4) |Angle|
Female	-1.519*	-0.521
	[-1.763]	[-0.480]
Age	-0.0438	-0.0189
	[-1.314]	[-0.453]
Employee Director	10.85***	8.280***
	[8.210]	[4.783]
Independent Director	8.839***	5.662***
	[7.610]	[3.594]
Attended <75% of meetings	-8.126**	-14.68***
	[-2.544]	[-3.762]
Financial Expert	-0.679	-1.351*
	[-1.149]	[-1.825]
# of Outside Public Boards	-0.139	-0.319
	[-0.539]	[-0.961]
% Controlling Voting Power	-0.00887	-0.0410
	[-0.174]	[-0.645]
Firm Controls	No	Yes
Constant	65.37***	62.52***
	[26.92]	[11.40]
Observations	5,871	3,590
Adjusted R-squared	0.014	0.032

ROBUSTNESS CHECKS

"Vote Buying" and Agenda Setting by Management
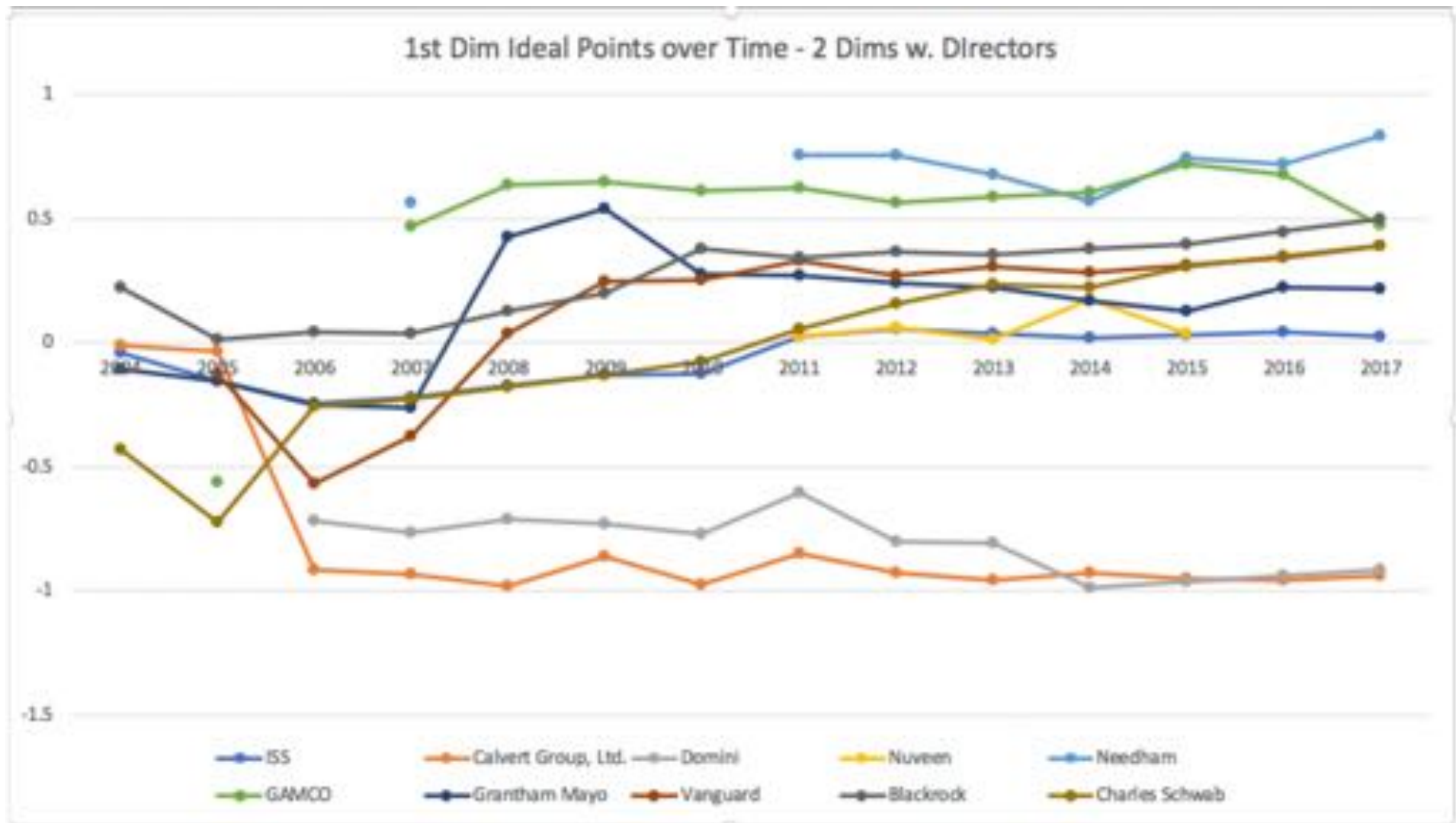
Strategic Voting

The results are robust to:

- Other subsamples: all firm

- Other estimation methods:
  - Optimal Classification (OC) – non-parametric
  - ANOMINATE – Probit, Markov Chain Monte Carlo estimation
  - Heckman Snyder (1997) – Principal Component

INVESTOR IDEOLOGY: 2 DIM, FY2012 VS FY2016
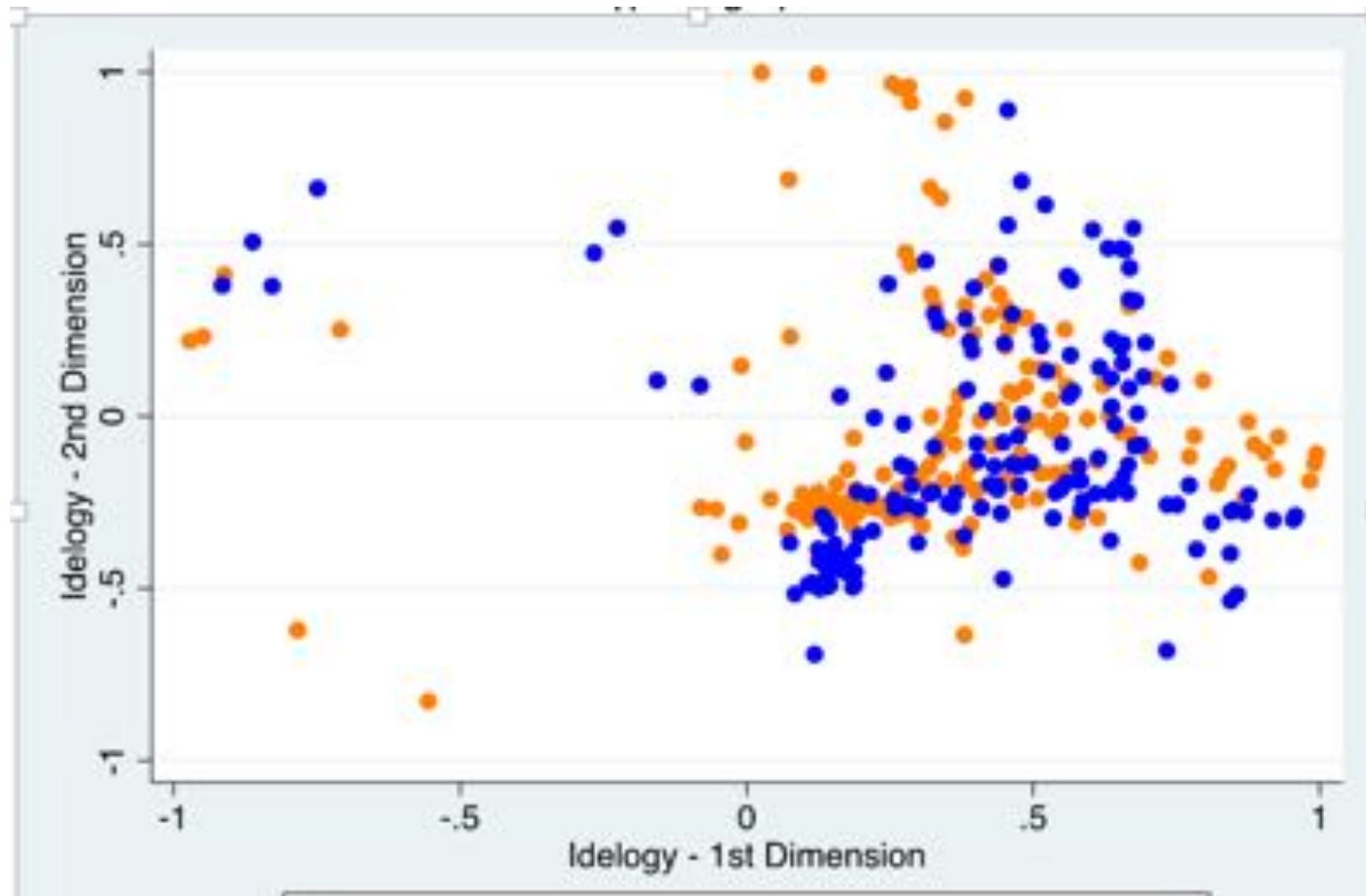
Orange is 2012 & Blue is 2016

THE EVOLUTION OF IDEOLOGY OVER TIME

Work in Progress

FUTURE RESEARCH

- Evolution over time :

  - the financial crisis, the rise of SRI
  - Which funds are stable, which ones evolve over time, and why

- The relationship between voting and investing

- The effects on firm's policies