

# Picking Friends Before Picking (Proxy) Fights: How Mutual Fund Voting Shapes Proxy Contests\*

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## Abstract

This paper studies mutual fund voting in proxy contests using a comprehensive sample of voting records over the period 2008 – 2015, taking into account selective targeting by activists. We find that firm, fund, and event characteristics generate substantial heterogeneity among investors in their support for the dissident, including their reliance on proxy advisors. Notably, active funds are significantly more pro-dissident than passive funds. We also uncover evidence consistent with a large unobserved fund “inherent stance” that cannot be explained by observable fund or event characteristics. In particular, we document a positive correlation between the propensity for targeting by activists and pro-activist voting by mutual funds, based both on observables and unobservables. This finding suggests that a relatively pro-activist shareholder base is a key factor driving activists’ selection of targets.

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# 1 Introduction

Over the past two decades, the frequency of proxy contests for board representation or control has increased markedly as shareholder activism has become both an established investment strategy and an important form of corporate governance. Dissident shareholders often prevail in these contests, winning 49.5% of the proxy contests that reached the voting stage from 2008 to 2015. Since dissident shareholders typically own only 5 – 10 percent of the outstanding target stock, fellow shareholder support is necessary for the success of any campaign. The general apathy of retail investors in engaging in voting matters implies that it is crucial that dissidents obtain the support of a majority of the institutional shareholders of the targeted firms. “Picking friends,” that is, the selection of a target with a pro-activist shareholder base, is thus a first-order factor in an activist’s plan prior to launching a proxy contest. Damien Park, the co-chairman of the Conference Board’s Expert Committee on Shareholder Activism, summarized the situation as “obtaining a clear understanding of how company shareholders will vote in a contested election is one of the most important components of any activist campaign.”

The mandatory disclosure of mutual fund proxy voting records adopted in April 2003 and the availability of voting record databases such as Voting Analytics, have led to a significant growth in the literature analyzing the voting behavior of institutional investors.<sup>1</sup> However, the standard voting data provided by Voting Analytics covers only votes cast by the top mutual fund families in non-contested meetings for Russell 3000 firms. This study focuses, instead, on the voting behavior of mutual funds in proxy contests with data that we gather directly from individual form N-PX filings. We thus hope to advance the literature that has so far mostly analyzed institutional investor voting in uncontested management and shareholder proposals. Voting decisions in proxy contests are arguably more informative and entail higher stakes for all parties involved compared with routine proxy voting for which investor votes are mostly precatory.

Our first contribution is a descriptive analysis relating firm, event, and investor characteristics to mutual funds’ support for dissidents on materialized proxy contests. As expected, mutual funds’ support for the dissidents is higher when Tobin’s  $q$  is lower, and when recent stock return or return

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<sup>1</sup> Papers studying management and/or shareholder proposals in uncontested meetings include Cai, Garner, and Walkling (2009), Choi, Fisch, and Kahan (2013), Cuñat, Gine, and Guadalupe (2012), Dimmock, Gerken, Ivkovic, and Weisbener (2016), Duan and Jiao (2016), Matvos and Ostrovsky (2010), Iliev and Lowry (2015), Morgan, Poulsen, Wolf, and Yang (2011), Malenko and Shen (2016), He, Huang, and Zhao (2017), and Kedia, Starks, and Wang (2017). The following studies examine the incentives affecting mutual fund voting: Ashraf, Jayaraman, and Ryan (2012), Butler and Gurun (2012), Cvijanovic, Dasgupta, and Zachariadis (2016), Davis and Kim (2007), Matvos and Ostrovsky (2008), Harford, Jenter, and Li (2011), and Bodnaruk and Rossi (2016).

on assets is lower. Presumably, subpar valuation or performance makes alternative leadership and strategies more appealing to shareholders. Mutual funds are more likely to vote for hedge fund activists rather than other types of dissidents, consistent with the belief that hedge funds have clear, value-oriented goals and are an effective force for governance (Brav, Jiang, Partnoy, and Thomas (2008)). Dissidents who frequently launch activist campaigns do not enjoy more support but those that demonstrate persistence and commitment within the campaigns that they do launch see higher support. Not surprisingly, dissidents enjoy more support after a high announcement return, where the latter serves as a proxy for the market’s expectation of the activists’ success in achieving their goals.

Multiple fund characteristics predict support for dissidents. One salient pattern is that passively-managed funds are significantly less likely than active funds to vote for dissidents (the difference of 11 – 12 percentage points is significant at the 1% level). The gap between active and passive votes has been persistent across years, and is even larger for small capitalization target companies. Though predicted by theory (see a recent review by Bebchuk, Cohen, and Hirst (2017)), this is the first direct evidence that passive funds are significantly more “pro-management” than active funds in proxy contests. A similar pattern holds at the family-level, that is, the most pro-dissident fund families typically have a low fraction of passive funds, and vice versa. A potential explanation is that passive funds – index and exchange-traded funds – are not rewarded by “beating the index,” but are instead motivated to minimize expense ratios as well as tracking errors (Elton, Gruber, and Busse (2004); Choi, Laibson, and Madrian (2010); Lund (2018)). As a result, they are not incentivized to confront the incumbent management.

We further explore whether mutual fund voting is motivated by a portfolio effect rather than just the impact on the company under consideration. Such an effect would be similar to voting considerations under cross-holdings in M&As (Matvos and Ostrovsky (2008); Harford, Jenter, and Li (2011)), and is also related to the effect of “common ownership” (Azar, Schmalz, and Tecu (2018)). We find that a fund is more likely to support a dissident when the abnormal returns of the fund’s same-industry sub-portfolio is higher, consistent with the hypothesis that mutual funds make voting decisions partly based on the value implication of the proxy contest on their portfolios. Moreover, funds earning a positive basis-adjusted return (return net of cost of investment) on the target stock are 7.0 percentage points less likely to support the dissident than a fund earning a negative return, suggesting that shareholders that are frustrated due to loss of invested capital in

the target stock tend to favor the changes proposed by the dissident.

Leading proxy advisory firms, i.e., Institutional Shareholder Services (“ISS”) and Glass, Lewis & Co. (“Glass Lewis”), are important participants in proxy voting. A “For” recommendation for a dissident is associated with about 35% higher support rate. This evidence is consistent with Alexander, Chen, Seppi, and Spatt (2010), who find that ISS’s certification is associated with more successful proxy fights by dissidents. However, there is significant heterogeneity in the extent to which fund families conform to advisories’ recommendations. Overall, smaller fund families tend to vote more closely in the direction of the proxy advisor recommendations, presumably because they lack resources to conduct independent proxy research.

Our main set of analyses adopts an integrated approach to model voting in proxy contests. In such a model, every firm-year is a potential target of a proxy contest on which all investors have a view (supporting the incumbent or favoring a change). However, their views are only revealed as votes if the contest materializes and proceeds to the voting stage. Thus, the model is set up to take into account the fact that observed votes are not a random selection out of all latent events and, as a result, do not necessarily represent mutual funds’ underlying voting rules for all potential contests.

We begin with a parsimonious two-equation system using a full-information maximum likelihood estimation method. The first is the selection equation, for which the information is recorded at the firm-year level (including investor information aggregated at the firm level). This equation represents a firm’s vulnerability to being targeted by dissidents for a proxy contest in a given year. The second equation is a “voting equation,” where information is more granular at the fund-firm-year level, and which represents the latent voting rule employed by mutual funds, regardless of whether the proxy contest actually takes place. The system has to overcome “partial observability” as the voting information is observed only when the firm-year is selected as a target by the activists. Because the decisions made by the activists in targeting (at the firm-year level) and those by the investors in voting (at the investor-firm-year level) require information at different aggregation levels, the system can be identified even when the same underlying economic factors affect both targeting and voting decisions. The estimated coefficient of correlation between the residual propensity of targeting by an activist and the residual propensity to support the activist by investors is positive, 0.19 (statistically significant at the 1% level), supporting the notion that activists tend to target firms with strong shareholder support beyond the predictive power of observable characteristics.

Next, we proceed to explicitly model two dimensions where selection takes place. First, we assess the extent to which actively-managed funds buy into or sell out of companies after the announcement of a proxy contest, as well as their choice to participate in the voting conditional on their holdings of the target shares. Mutual fund shareholders' participation in voting amounts to 94% of funds in our sample. Funds exercise a "no show" when the target company is of low profile, typically a small firm with low valuation, and when their holdings are small. Moreover, funds are more likely to skip voting if there is no proxy advisor recommendation to follow. Hence, shareholders' no show is associated with high cost of acquiring information relative to the benefit of casting an informed vote. Buying-in (selling-out) subsequent to the announcement of the contest accounts for 5.5% (1.4%) of the funds, which is not significantly higher than the normal inter-quartile turnover. These "marginal" investors tend to have smaller holdings, and do not demonstrate consistent voting preferences in favor of either the management or dissident. Therefore, investor turnover post-announcement ought not distort our inferences based on the shareholder base observable to the activists at the pre-targeting stage.

The second dimension of selection we attempt to incorporate is activists' targeting based on, among other factors, the stance of the shareholder base at the candidate target. For this purpose, we quantify that part of individual shareholder inherent stance that can be aggregated at the firm-year level. We begin by constructing measures for mutual funds' pro-activist stance based on their voting records prior to each contest, so that we only use information that was available to the activists. The first measure of a fund's inherent stance is based on each fund's voting outcome relative to fellow funds voting in the same contests, which is effectively the fund's fixed effect in voting, in addition to an event fixed effect. Since we use within-event information, this measure filters out the endogeneity due to selective targeting by the activists. The second measure of a fund's inherent stance is an ordinal ranking of funds' past voting records based on pair-wise comparisons, where each permutation of possible pairs of funds are ranked for their pro-activism stance based on the common set of contests they voted upon so as to remove the effect due to (active) funds' non-random selection of their holdings. After controlling for firm and fund characteristics, a two standard-deviation change in the two proxies, aggregated at the firm-year level, capture 24% to 63% of the unconditional probability of targeting. Interestingly, a pro-activist shareholder base predicts a higher likelihood of a settlement than reaching a vote, suggesting that management may resort to settlements when the activist poses a credible threat in expected shareholder support.

Next, we propose two measures capturing mutual fund’s degree of “ISS conformity” and “persuadability.” The first measure is based on the tendency of a company’s institutional shareholder base to be swayed by the proxy advisors’ recommendations. The second measure builds on the idea that a fund that is willing to carefully assess the merit of each case is likely to have high variation in the votes cast over time; we therefore proxy for the fund’s flexibility using the variation in the votes it has cast in the past prior to the proxy contest. We find that activists are more likely to target companies whose shareholder base can be swayed by the proxy advisors, or that can be reasoned with and thus potentially persuaded to vote for the dissident. Moreover, both measures also predict that contests will reach the voting stage rather than settle suggesting that both sides are more likely to fight to the end if they feel that the investors and/or the leading proxy advisors can be persuaded.

## **2 Institutional Background**

Our study encompasses all contested events that require direct shareholder voting over the period between 2008 and 2015, including contested director elections and written consent solicitations to replace directors. In contested events, at least one shareholder takes a different position from that endorsed by the company’s current board and management. For example, if a shareholder decides to nominate a slate of “dissident” directors in addition to the candidates supported by the incumbent board’s nominating committee, a contested election will take place for all or part of the board of directors.

The proxy fight between DuPont, an iconic American company, and Trian Partners, a leading activist investor, best exemplifies the underlying institutional framework, as well as the intricacies of our data collection process.

### **2.1 Trian Partners’ Intervention at DuPont**

Activist investor Trian Partners first engaged with the management of E. I. du Pont de Nemours and Company (“DuPont”) in mid 2013. The exchange between the parties extended over a two-year period, centering on change to the firm’s conglomerate structure, reduction of excess corporate costs, modification of capital allocation plans, and change to corporate governance. By early 2015, the parties were unable to settle on board membership for the activist to avert a proxy fight, which

took place on May 13, 2015 at DuPont’s annual shareholder meeting. At the time, Trian Partners owned 2.7% of DuPont shares, and DuPont insiders owned 0.3%. DuPont shareholders faced the choice to either support Trian Partners by electing its founding partner, Nelson Peltz, and three other dissident nominees, or support the incumbent management team led by CEO Ellen Kullman by re-electing all sitting directors. Both sides launched aggressive public campaigns trying to win over the remaining institutional investors who were expected to be the pivotal voters in a seemingly close contest.<sup>2</sup>

The high-profile proxy battle resulted in a loss to Trian Partners. DuPont won with 53.5% of the votes, rejecting all of Trian’s candidates and re-electing all incumbent directors. DuPont claimed victory but subsequently implemented cost cutting measures as well as asset spin-offs that were in line with the activist’s goals. Relevant to this study is the way different asset managers voted their shares. Table 1 provides the actual votes cast by mutual funds affiliated with the top 10 fund families. Several distinct patterns emerge.

[Insert Table 1 here.]

First, DuPont’s top mutual fund shareholders are the “usual” names of institutional investors with significant ownership in other S&P 500 index member companies. The top five mutual fund families, BlackRock, American Funds (Capital Group), Vanguard, State Street, and Fidelity, collectively owned 25.4%. Indeed, had one of the three passive institutions that voted against Trian Partners changed its support that would have sufficed for Nelson Peltz to win a board seat.<sup>3</sup> Second, votes in favor of the dissident from within the same fund family are clustered at the two extremes, either 0% or 100%. However, we do observe some remaining disagreement, allowing for within-family analysis in some of our later analysis.

Third, and most important, is the near dichotomous stance between passively- and actively-managed funds in this case. All top fund families that are primarily in passive management, notably, BlackRock, Vanguard, and State Street, voted in favor of the management. In contrast, almost all actively managed fund complexes, with the exception of Franklin Resources, voted for the activist. This difference is consistent with the evidence reported later in the paper that passive

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<sup>2</sup> According to a USA Today article, DuPont spent \$15 million on the proxy contest, while Trian Partners spent \$8 million (see, “DuPont spent \$15M to keep activist investor off board,” by Jeff Mordock, May 19, 2015).

<sup>3</sup> See “Peltz One Big Shareholder Vote Away From DuPont Board Seat, Tally Shows,” *The Wall Street Journal*, by David Benoit and Jacob Bunge, May 19, 2015. In the final vote count, according to DuPont’s June 9, 2015 8-K/A filing, DuPont’s board nominee, Lois D. Juliber, won the fewest votes, at 53.5% of the voted shares while Nelson Peltz won 45.8% of shares voted. The difference was about 54 million shares.

funds' average vote for dissidents has been consistently lower than that of active funds in each of the eight years in our sample, from 2008 to 2015.

### 3 Data and Sample Overview

#### 3.1 Data Sources

##### 3.1.1 Contested Shareholder Interventions

The sample of contested interventions spans the fiscal years 2008 through 2015. Both management and the dissident shareholder are required to file with the SEC a Form DEFC 14A, or the “definitive contested proxy statement,” in order to allow shareholders to vote on their respective ballots. We manually download all DEFC 14A filings from EDGAR for the period July 1, 2008 through June 30, 2015. This step results in 326 unique proxy contests, in which both the management and the dissident proposed competing slates of director nominees. We trace back the dissident’s date of announcement, which is usually launched by the filing of a Form PREC 14A, the “preliminary contested proxy statement,” although some of these events are initiated by a schedule 13D filing or a press release. We then search for subsequent proxy filings and 8K/10Q filings to determine whether the shareholder meeting actually took place or not. If a shareholder meeting did indeed take place we record the firm name, its CIK and CUSIP numbers, the dissident’s name, and the meeting date. Our sample includes 232 unique contested meetings.

Next, we extract the following information from Form DEFC 14A for both the management’s and shareholder dissident’s proxy cards: the proposal number, the sponsor (management or shareholder), and the text of the proposal. The management’s proxy card lists director candidates nominated by the management, while the dissident’s proxy card contains director nominees sponsored by the dissident. Each proxy card also includes other management- or shareholder-sponsored proposals, if any.

Finally, since some contested meetings take place even though neither party has filed a DEFC 14A (only a PREC 14A, or a 13D filing), we supplement the above hand-collected data with a comprehensive review of proxy contests included in SharkRepellent, a data provider that specializes in corporate governance. This step yields 40 additional contested voting events, which brings the total to 272 events that reached a meeting. We are able to obtain voting records from at least



one mutual fund for 215 of these contests. The rest are typically over-the-counter stocks or small capitalization firms that mutual funds do not hold. We then use the firms' CIK numbers to merge the sample with CRSP and Compustat databases, resulting in 188 contested meetings for which data is available in these databases.

The procedure described above yields 94 proxy contests in which a DEFC 14A filing was submitted but the contest was either settled (75 events) or withdrawn (19 events). Contested campaigns are often settled or withdrawn after the dissident has filed a PREC 14A, a schedule 13D or a press release and before a DEFC 14A is filed. Further manual search for such cases in PREC 14A, schedule 13D, press release, and SharkRepellent yields an additional 138 settled contests and 39 withdrawn events. This brings the total number of settled events to 213 and withdrawn events to 58 over our sample period. Matching these events to CRSP and Compustat results in a sample of 194 settled and 43 withdrawn events.<sup>4</sup>

### **3.1.2 Mutual Fund Voting Records**

The key input to this study is the full voting records of registered investment companies in proxy contests during our sample period. U.S. mutual fund companies are required to publicly disclose their proxy voting records via N-PX filings on the EDGAR website, including, for each holding, the company name, ticker, CUSIP, fund name, meeting date, meeting type (annual or special), proposal number, proposal text, sponsor (management or shareholder), management's recommendation, and the vote cast for each proposal or contest. Unfortunately, standard databases, such as ISS's Voting Analytics, do not systematically contain voting records for proxy contests due to a lack of standardized format in such reporting. Instead, ISS collects voting records mostly for non-contested meetings for Russell 3000 firms held by top mutual fund families.<sup>5</sup>

Different fund families adopt different styles to structure the information provided in their N-PX filings, and, at times, funds within the same family use a variety of formats for these records, complicating the gathering of the voting data.<sup>6</sup> The heterogeneity in reporting style can be seen in Appendix A1 in which we include a sample of original voting records by two Vanguard funds

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<sup>4</sup> Bebchuk, Brav, Jiang, and Keusch (2017) analyze the drivers, nature, and consequences of settlement agreements.

<sup>5</sup> According to ISS, between fiscal years 2004 and 2006, ISS collected voting records by the top 100 families. From 2007 onward, ISS has collected routine voting records by the top 300 families.

<sup>6</sup> For example, some families upload htm filings, other families use the txt format, and some families embed txt documents in htm templates. A number of other families have switched from txt format to htm over our sample period.

and two Northern Lights funds relating to DuPont’s proxy contest described earlier in section 2.1. Vanguard funds all file uniformly, while each Northern Lights fund adopts its own unique format. For example, Northern Lights’s Covered Bridge Fund did not include the dissident proxy card that they did not vote on while Northern Lights’s Persimmon Long/Short Fund included both the management and dissident cards.

We adopt a multi-step procedure to extract information from form N-PX. First, we develop multiple computer scripts to parse all N-PX records by the top 100 mutual fund families from EDGAR between July 1, 2007 and June 30, 2015, and extract the following information: family name, fund name, company name, CUSIP, meeting date, meeting type (annual or special), proposal number, proposal text, sponsor (management or shareholder), management’s recommendation, and vote cast for each proposal. From this superset we are able to retrieve the voting records for the 188 proxy contests using the associated target company names/CUSIPs and meeting dates. According to the CRSP Mutual Fund database, as of December 2016, the top 100 families account for 85.2% of assets under management (and a similar representation of voting power) by all mutual funds.

We then manually search for voting records of the remaining (smaller) fund families. Given that the number of funds per family is low we first download all of their N-PX filings for fiscal years 2008-2015 and then, for each fiscal year, search for filings that include the 188 target names/CUSIPs. This significantly reduces the number of N-PX filings that need to be checked. Finally, we manually collect voting records by these funds on the contested events. Combining the data sets collected in these two steps, we obtain 5,313 unique funds from 615 unique fund families, and 27,289 meeting-fund pairs or firm-year-fund observations.

### **3.1.3 Institutional Holdings**

We obtain mutual fund quarterly holdings from the Thomson Reuters S12 Mutual Funds database. The sample includes all SEC-registered mutual funds for the period January 1994 through December 2015. The holdings are adjusted for stock splits. Following Frazzini (2006), we drop observations when the number of shares held by a fund exceeds the number of outstanding shares at quarter end. For all the stock-fund-year pairs, we download the CUSIP, the number of shares, and a unique fund ID assigned by Thomson Reuters. The holdings data are then merged with CRSP to obtain the firms’ stock price.

Next, for each fund identified in the mutual fund voting database (see Section 3.1.2), we first

download all of their tickers from the EDGAR N-PX forms and use these tickers to merge with mutual funds in the CRSP Mutual Fund database. We utilize the MFLINKS tables on the Wharton Research Data Services (“WRDS”) to match the CRSP funds to the Thomson Reuters S12 data.<sup>7</sup> This step yields 14,209 observations. Finally, we manually search all the unmatched voting fund names in Thomson Reuters S12 and obtain 1,964 additional matched observations.

We also retrieve information on a firm’s other institutional owners from Thomson Reuters 13F database. The SEC requires all institutions with at least \$100 million in total holdings to file Schedule 13Fs within 45 calendar days of quarter-end with ownership information on 13(f) securities. All holdings of an issuer of more than 10,000 shares or of a value of \$200,000 or more must be reported. We retrieve the stock name, CUSIP, and two measures of ownership. The first, the number of sole voting shares held, and the second, all shares held by the institution.

## 3.2 Event, Fund, and Firm Level Variables

### 3.2.1 Event Characteristics

The variables described in this section are designed to capture event-related specific attributes. The first set of variables describe the dissident. *Hedge fund dissident* is a dummy variable equal to 1 if the dissident is a hedge fund and 0 otherwise. We further proxy for a dissident’s experience with the variable *# past events by dissident* by counting the activist’s past interventions using a comprehensive database of hedge fund activist events launched by the hedge funds beginning in 1994. We scale this count by the number of years since the earliest year when campaigns by the individual dissidents are launched.<sup>8</sup> Number counting aside, we attempt to proxy for the activist’s commitment in these past engagements. The variable *Past campaign intensity* is a weighted average of three modes of engagement: passive communication, submission of shareholder proposals, and more confrontational actions, including the threat of a proxy contest, initiation of an actual proxy contest, a lawsuit, and a takeover bid. We assign increasing weights to each of these tactics as

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<sup>7</sup> We thank Yuehua Tang for suggesting the use of mutual fund tickers for matching N-PX funds to funds in CRSP and Thomson Reuters S12.

<sup>8</sup> The dataset covers activism events in the U.S. over the period 1994-2015 and is an extension of the sample used in Brav, Jiang, Partnoy, and Thomas (2008), and Brav, Jiang, and Kim (2015) and is based upon the same sample selection criteria. These events are identified mainly through Schedule 13D filings to the SEC, but also includes activism events at below 5% stakes using news archive search.

follows:

$$\text{Past campaign intensity} = \frac{(\# \text{ Communication}) \times 1 + (\# \text{ Proposal}) \times 2 + (\# \text{ Confront}) \times 3}{\# \text{ of Years}}$$

where  $\# \text{ Communication}$  is the number of events in which the activist sought to communicate with the board/management.  $\# \text{ Proposal}$  is the number of events in which the dissident submitted shareholder proposals but without further disapproval.  $\# \text{ Confront}$  is the number of confrontational events in which the activist threatened to sue or launch a proxy contest, initiated a proxy contest, a lawsuit, a takeover bid or asked for board representation.  $\# \text{ of Years}$  is the number of years since the earliest year (post 1994) when the campaign was launched.

The literature has shown that leading proxy advisors, especially ISS and to some extent Glass Lewis, have significant sway of up to 30% on institutional votes (Cai, Garner, and Walkling (2009); Malenko and Shen (2016); Li (2016)). Hence, we incorporate proxy advisors' recommendations in our analysis. *ISS for dissident* is a dummy variable equal to 1 if ISS recommends that investors vote "For" the dissident, and 0 for a recommendation "Against" the dissident. To locate ISS's voting recommendations, we check all company and dissident proxy filings between the DEFC 14A date and meeting date, and record the final recommendation disclosed by either party. For the events missing ISS recommendations, we supplement with information from ISS's Voting Analytics database, SharkRepellent, as well as news search in Factiva. These steps yield 83 "For" recommendations and 76 "Against" recommendations by ISS. *Glass Lewis for dissident* is constructed similarly. We obtain 34 "For" recommendations and 102 "Against" recommendations by Glass Lewis.<sup>9</sup>

### 3.2.2 Fund Characteristics

The next set of variables are meant to capture fund-level heterogeneity. *Passive fund* is a dummy variable equal to 1 if the fund is passively managed.<sup>10</sup> The variable *% disagreement within family last year* provides the percent of proxy contests in the previous year for which there is

<sup>9</sup> Since at least one party is incentivized to publicize the proxy advisors' stance that is in its favor these steps should reveal the full extent of ISS and Glass Lewis recommendations.

<sup>10</sup>We search for names including the following indexation-related strings such as Index, Idx, Indx, INDEX, Ind\_ (where \_ indicates a space), and ETF, as well as names of common indices such as Russell and S&P, or if the fund is categorized as an index/ETF in the CRSP Mutual Fund database.

disagreement in voting within the fund family, where disagreement arises if at least one fund voted in a different direction from other funds within the same fund family. *Fund total assets* (in billions of dollars) is the sum of each portfolio’s total dollar value, as recorded in the Thomson Reuters S12 database.  *Holding as % of fund total assets*  is a fund’s dollar ownership of the target stock as a percentage of a fund’s total assets.  *Holding as % of firm equity*  is a fund’s share in the target stock as a percentage of the target’s outstanding shares. The last three variables are measured at the quarter end prior to the contested meeting.

### 3.2.3 Fund-Event Characteristics

Additional heterogeneity arises at the fund-event paired level. While  *Announcement return* , the cumulative abnormal return between  $-10$  days and  $+10$  days around the announcement of the proxy contest, is common to all funds,  *Sub-portfolio CAR  $[-10,+10]$* , the same abnormal return for a fund’s sub-portfolio containing all firms in the same industry as the target firm, is calibrated to each fund-event. Industry is defined at the SIC four-digit level if it results in at least three firms in the portfolio, and is expanded to the SIC three-digit or two-digit industry, otherwise.

*Positive basis-adjusted return*  is an indicator equal to 1 if the current stock price is above the value-weighted cost basis, and 0 otherwise. For any fund and at any date  $t$ , the price basis construction follows Frazzini (2006) and equals,

$$Basis_t = \lambda^{-1} \sum_{n=0}^t Share_{t,t-n} Price_{t-n},$$

in which  $Share_{t,t-n}$  is the number of shares the fund acquired at date  $t - n$  that it still holds at date  $t$ ,  $\lambda$  is a normalizing constant such that  $\lambda = \sum_{n=0}^t Share_{t,t-n}$ . The beginning month is constrained to January 1994. Finally,  *Holding horizon*  is the number of consecutive quarters in which a mutual fund holds the target stock.

### 3.2.4 Firm Characteristics

Several common firm characteristics serve as control variables in our analyses. Market capitalization,  $MV$ , is measured in billions of dollars;  *Tobin’s q* , is the sum of book value of debt and market value of equity, scaled by book assets; Return-on-assets,  $ROA$ , is earnings before interest,

tax, depreciation and amortization, or EBITDA, scaled by book assets; *Leverage* is the ratio of debt to the sum of debt and equity, all in book values; *Prior-year stock return* is the buy-and-hold return during the 12 months prior to the contested meeting; *Dividend yield* is common and preferred dividends divided by the market value of common stock plus book value of preferred; industry concentration is captured by the Herfindahl index of sales (*HHI*); and *Institutional ownership*, is the fraction of shares held by institutional investors at the quarter end before the meeting, as reported by the Thomson Reuters Ownership Database. All of the variables above, except *Prior-year stock return*, and *Institutional ownership*, are measured at the fiscal year end before the contested meeting.

### 3.3 Sample Overview

#### 3.3.1 Proxy Contests and Voting

Table 2 provides descriptive statistics on 425 proxy contests over the period 2008-2015, in which the target firms are covered by CRSP/Compustat. Panel A provides the annual frequency of proxy contests that resulted in a vote, a settlement, or were withdrawn. The number of proxy contests was at a high of 84 in 2008, but then dropped by nearly a half by 2010 and has since remained at an average of 44 events per year through 2015. About 44% of all proxy contests in our sample resulted in a vote, while 46% were settled prior to the shareholder meeting. The remaining 10% were withdrawn by the dissidents.

[Insert Table 2 here.]

Panel B provides the breakdown of events by the Fama-French 12 industry classifications. The Finance industry includes the largest number of proxy contests, comprising 23.1% of the sample. However, the industry is still significantly underrepresented considering that nearly 41% of all Compustat firms are in the Finance industry (measured by firm-year frequency). Next in the frequency ranking is Business Equipment, representing 17.2% of our proxy contests sample, compared to 11.0% of the Compustat universe. The difference is significant at the 1% level. Panel C provides information on the dissidents launching the proxy contest. 146 hedge funds are responsible for 315 contests, or 74.1% of the sample, indicating the presence of repeat players. Next, individual investors launch 73 contests and companies initiate 28 contests.

### 3.3.2 Overview of Voted Contests

Table 3 provides summary statistics on the subset of contests that eventually reached the voting stage, which is of particular importance for analyzing funds' voting behavior. Panel A reports event-specific characteristics. The first three rows reveal that voted contests represent highly pivotal situations. When a proxy contest proceeds to voting, both the incumbent management and the dissident shareholder ought to expect that their probability of winning is not significantly below 0.5. Had this not been the case, management would choose to settle or the dissident shareholder would withdraw (Bebchuk, Brav, Jiang, and Keusch (2017)). Indeed, the statistics support such tradeoffs. In our sample, activists have won 49.5% of the voted contests and ISS supports the dissident slate 52.3% of the time (when a recommendation is issued). Both numbers are indistinguishable from one-half. In an average contest, the dissident receives 40.5% of the votes, indicating that when a dissident wins (loses) the margin is relatively small (large). In contrast, Glass Lewis only supports the dissident 23.3% of the time. The different degree of support for the dissident by the two leading proxy advisors echoes the findings of Li (2016) and Bubb and Catan (2018). Nearly 70% of the time the dissident is a hedge fund. Dissidents launched 2.2 proxy contests, on average, per year. Their track records are such that they won, on average, 0.7 of past activist engagements, where success includes the achievement of at least one of their stated goals. In addition, the average dissident's past campaign intensity, as defined in section 3.2.1, is 3.5.

[Insert Table 3 here.]

Panel B provides evidence on fund characteristics. Passively managed funds comprise 38.6% of all the event-fund observations, while they comprise just 15.9% of all the unique funds. For a given fund family, there is at least one fund voting in a different direction from other funds within the same family in 5.5% of proxy contests. The overall low level of disagreement within fund families is consistent with the documented voting pattern in uncontested shareholder meetings (Iliev and Lowry (2015)). At the fund level, the average (median) past support rate for the dissidents is 34.8% (33.3%). The average fund has a portfolio value of \$4.3 billion, with a median of \$0.4 billion. The average fund invests 0.5% of its assets in the target stock, which amounts to 0.2% of the outstanding stock.

Fund characteristics are presented in Panel C. The average mutual fund holds the target for 7.5 quarters, with a median of 5.0 quarters. Same-industry firms in the fund's portfolio experience

a positive abnormal return of 3.0% on average, and a median of 1.7%. This is consistent with Gantchev, Gredil, and Jotikasthira (2016) who find a positive return effect at the industry level upon announcement of activism. On average, 79% of funds bought the target firm at a price lower than the current stock price, hence the positive basis-adjusted returns.

Panel D presents statistics for the target companies. Columns (1)-(3) provide the average, median, and standard deviation for selected attributes, and columns (4)-(7) show a comparison to matched firms. In columns (4)-(5), matched firms for each target are all other firms from the same year and same industry (four-digit SIC). In columns (6)-(7), we match each event firm to a control firm from the same year and the same industry (two-digit SIC) with the closest propensity score, where the propensity score is estimated using all firm characteristics.

Target firms are significantly smaller than Compustat-matched companies (at the 5% level), with an average (median) market value of \$1.8 (\$0.3) billion. However, dissidents tend to launch proxy contests at firms with more institutional owners, whose votes are crucial for the dissidents to win the looming proxy battle. Targets in proxy contests have a lower Tobin's  $q$  and poorer stock performance, implying that one major goal of proxy contests is to reduce undervaluation of the target firms. Firms going through proxy contests also have a lower dividend yield (insignificant at the 10% level), suggesting that one goal for dissidents is to seek higher payouts. Relative to their matched peers, targets have a marginally higher ROA (not significant at the 10% level). These patterns are broadly consistent with Fos (2017). Last, as shown in columns (6)-(7) of Panel D, differences in all company characteristics between target firms and the propensity score matched sample are not significant at the 10% level, indicating that the propensity score produces a close match along all these important dimensions.

Panel E provides information on the distribution of ownership by mutual funds in target firms, non-target firms, and the propensity score matched firms. For each firm, we count the smallest number of largest mutual funds that are needed to reach an ownership percentile threshold. The average (median) number of these large fund investors that collectively own 5% at the target firm is 4.4 (2). It is nearly a half of the number for the non-targets at this threshold, consistent with the idea that dissidents select target firms in which it is easier to communicate with a more concentrated investor base. The number of funds increases steadily and by the 25% threshold of ownership there is no significant difference across the three groups of firms. The average (median) number of fund investors at this ownership level at the target firms is 65.3 (24).



## 4 Descriptive Analyses of Mutual Fund Voting in Proxy Contests

### 4.1 Mutual Fund Voting Sorted by Event and Fund Characteristics

Panels A to C of Table 3 describe the general pattern of mutual fund voting in proxy contests. Columns (4)-(6) give the support rate for the dissident's slate at a low and high level for each fund, firm, event, and fund-event characteristic, and test for their differences. For all other variables, the cutoff for high- and low-level is the median value of a characteristic variable.

At the event level, when ISS issues a "For" recommendation for a dissident, mutual funds' support rate is 57.5%, compared with a support rate of 17.8% when the recommendation is "Against." This order of magnitude for ISS's potential influence, up to 40 percentage points, is consistent with prior research on the conformity of institutional votes to ISS recommendations. Similarly, a change in the recommendation by Glass Lewis is associated with a 22 percentage points difference in fund votes.

When the dissident is a hedge fund, mutual funds support its slate 42.1% of the time, compared with a support rate of 25.3% otherwise. Mutual funds do not seem to be impressed by the sheer quantity of a dissident's past campaigns, as proxied by the number of past activist engagements. Finally, when the dissident announcement return is high, mutual funds tend to support the dissident, consistent with the idea that the market believes that the dissident is more likely to succeed in achieving its goals. All of the differences above are significant at the 1% or 5% level, except for past campaign intensity which is insignificant at the 10% level.

We next examine how fund-level characteristics are associated mutual funds' support for dissidents. As shown in Table 3, Panel B, passively-managed funds are significantly less likely than active funds to support a dissident, and the difference of 8.8 percentage points is significant at the 1% level. Furthermore, in Figure 1, Panel A, we plot passive and active managed mutual funds' support rate for dissidents in proxy contests over fiscal years 2008 - 2015.<sup>11</sup> It is evident that active funds are consistently more likely to support dissidents, with the difference being the largest in 2010. In Figure 1, Panel B, we further compare passive and active funds' support for dissidents sorted by market capitalization of the target firm. Passive funds' support for dissidents in small cap target firms is similar to that in large caps. While active funds' support for dissidents is higher than that of passive funds in both size sorts, we observe much higher support in small caps targets,

<sup>11</sup>We first average across funds in a given event before averaging across all the events in that year.

51% of the time, compared with a support rate of 38% in large cap targets.

[Insert Figure 1 here.]

Not surprisingly, a fund’s past support rate for dissidents strongly predicts its support for dissident nominees in the current proxy contest. The difference is significant at the 1% level. We also find that when a fund invests a higher proportion of its assets in a target stock, it tends to support management more often. Significant holders of a stock typically interact with management more often, and might not want to annoy management by voting against them so they could lose continued access to management. Iliev and Lowry (2015) find a similar result for uncontested meetings when ISS recommends against the management. However, we do not find any economic or statistical significant relationship between votes for dissidents and percent disagreement in family past year, fund total assets, or investment as percentage of firm equity.

Finally, in Panel C, we examine whether key fund-event characteristics are related to funds’ support for dissidents. Positive basis-adjusted return is negatively correlated with the support rate (the difference is significant at the 10% level), suggesting that “unhappy” shareholders, who have had bad investment returns, are more likely to support changes proposed by dissidents. On the other hand, sub-portfolio CAR is positively related to mutual funds’ votes for the dissident, indicating that funds make voting decisions based on the overall performance of their portfolios (the difference is significant at the 10% level). Holding horizon, however, is not related to funds’ support rate both economically and statistically.<sup>12</sup>

## 4.2 Voting Patterns by Mutual Fund Families in Proxy Contests

A central goal of this study is to uncover how mutual fund investors vote in proxy contests, one of the most important venues for corporate governance by shareholders. Table 4 Panel A reports the voting outcome by the top ten institutions by assets under management (“AUM”). The top three are BlackRock, Vanguard, and State Street, who collectively managed \$11.7 trillion of assets as of December 2016. Vanguard participated in 85% of the proxy contests between 2008 and 2015, followed by BlackRock and State Street. The smallest institution among the top 10 asset managers, Wellington, also voted in over 100 proxy contests.

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<sup>12</sup>Appendix A3 provides additional descriptive statistics linking mutual fund voting and pro-dissident recommendations by the proxy-advisors ISS and Glass Lewis.

[Insert Table 4 here.]

The voting decisions for the top ten institutions reveal a noteworthy positive relation between the number of passive funds within the family and support for management. The majority of Vanguard, State Street and BlackRock assets are in passive funds. They are more likely to vote in contests due to their comprehensive holdings and, more importantly, more likely to vote for management. The support rate for dissidents ranges from 16.8% by Vanguard to 34.8% by BlackRock. On the other end of the spectrum, Goldman Sachs funds and American Funds are almost all actively managed. Their support rates for dissidents are 62.5% and 39.5%, respectively.

Panel B contrasts the most and least pro-dissident fund families among the top 100 frequent voters based on the average outcome of their votes. These funds participated in at least 32 proxy contests during our sample period. Mutual of America, with an AUM of \$15.7 billion, voted for dissidents 68% of the time, the highest in our sample. Next are Gabelli, Goldman Sachs, SA Funds, and Janus, with dissident-support rates ranging from 54.2% to 62.9%. On the other end, Rydex Investments, the least pro-dissident family, supported dissidents in only 2.6% of the time. The rest of the five families with the lowest dissident-support rates, including California Investment Trust and Vanguard, range between 3.1% and 19.2%. Echoing the pattern in Panel A, the most pro-dissident families tend to have few passively managed funds, and vice versa.

## 5 An Integrated Analysis of Proxy Contests and Voting

### 5.1 Investor Voting Behavior Incorporating Contest Target Selection

#### 5.1.1 Empirical Specification

In equilibrium, investors' voting decisions in proxy contests and dissidents' target selection are jointly determined. Since the support from the majority of shareholders defines success in proxy contests, rational activists must pick battles in companies with a sympathetic shareholder base and try to win over their support. Gauging shareholder support is necessary given that dissidents and insiders tend to hold quite comparable stakes, and the support of disinterested shareholders is therefore crucial for the success of a campaign.<sup>13</sup> The selection of targets by dissident sharehold-

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<sup>13</sup>Fos and Jiang (2016) report that in proxy contests, the average ownership by the incumbents and dissidents are 10.9% and 9.6%, respectively.

ers implies that an analysis of shareholder voting behavior conditional on the materialization of proxy contests, while informative, may not represent the underlying “voting rules” by institutional investors.

In this section, we present a parsimonious model to capture the joint contest-voting dynamics. Let  $i, j, t$  be indices for firm, investor, and year, respectively. The basic model is set-up as follows:

$$Vote_{i,j,t}^* = X_{i,t}\gamma + Z_{i,j,t}\lambda + \varepsilon_{i,j,t}; \quad Vote_{i,j,t} = (Vote_{i,j,t}^* > 0); \quad (1a)$$

$$Contest_{i,t}^* = W_{i,t}\beta + \bar{Z}_{i,j,t}^{[i,t]}\delta + u_{i,t}; \quad Contest_{i,t} = (Contest_{i,t}^* > 0); \quad (1b)$$

$$Vote_{i,j,t} \text{ is observed iff } Contest_{i,t} = 1. \quad (1c)$$

Equation (1a) gives the unconditional voting model employed by institutional investor  $j$  if firm  $i$  is under a proxy-contest in year  $t$ . Both firm-year variables,  $X_{i,t}$ , and investor-level variables,  $Z_{i,j,t}$ , affect the voting outcome. The vector of variables  $Z_{i,j,t} = \{Z_j^{[1]}, Z_{j,t}^{[2]}, Z_{i,j,t}^{[3]}\}$ , includes time-invariant fund specific variables,  $Z_j^{[1]}$ , such as whether the fund is passively managed, time-variant fund specific variables,  $Z_{j,t}^{[2]}$ , such as fund size; and fund-event level variables,  $Z_{i,j,t}^{[3]}$ , such as basis-adjusted returns. Random noise as well as unobserved independent variables are grouped into  $\varepsilon_{i,j,t}$ , the residual. The voting outcome is  $Vote_{i,j,t} = 1$ , where fund  $j$  votes in favor of the dissident in the proxy contest in firm-year  $(i, t)$  if the fund’s pro-dissident propensity,  $Vote_{i,j,t}^*$ , exceeds a threshold which we normalize to zero. Importantly, the voting outcome is only observed when there is an actual contest, that is, when  $Contest_{i,t} = 1$ .

Equation (1b) models the vulnerability of a given firm in a given year to being the target of a proxy contest.<sup>14</sup> The vulnerability,  $Contest_{i,t}^*$ , is related to observed firm-year characteristics,  $W_{i,t}$  and  $\bar{Z}_{i,j,t}^{[i,t]}$ , and a residual  $u_{i,t}$ . A proxy contest will materialize, i.e.,  $Contest_{i,t} = 1$ , when the vulnerability exceeds a threshold, which is normalized to zero.  $W_{i,t}$  includes firm-level variables that are deemed to potentially affect the propensity to target, including firm characteristics as well as performance. In addition,  $\bar{Z}_{i,j,t}^{[i,t]}$  captures the the aggregate profiles of the shareholders in the firm at the time, to be discussed further below.

The model has a close-form solution with the assumption that the residuals are binormally

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<sup>14</sup>In this section we only consider proxy contests that persist to the voting stage since the analyses are built on actual fund voting. We analyze the full set of announced proxy contests, including those that last to the voting stage, those that result in a settlement between both parties, and contests that have been withdrawn by the activist in Section 5.2. In the current analysis, firms that experience an announced but withdrawn or settled contest are excluded from the control sample.

distributed. The estimation using a full-information maximum likelihood (“FIML”) method is detailed in Appendix A4. It is closest to the model developed in Van de Ven and Van Pragg (1981) in which one probit model becomes observable depending on a second probit model. It can also be viewed as a special case of Heckman (1979) who models a system of two processes, one on participation, and the other on the outcome conditional on participation.

Our setting differs from the standard probit models with selection in that the two processes in Equation (1) operate at different levels. How an individual investor casts its vote in a contest is potentially affected by circumstances at the firm-investor-year level (i.e.,  $(i, j, t)$ ), while dissidents’ targeting decision is based on factors at the firm-year level (i.e.,  $(i, t)$ ), including investor-level information aggregated to the event. When aggregating the investor-level information we apply a value-weighted scheme in which the weights,  $w_{i,j,t}$ , are proportional to investor  $j$ ’s voting rights (equivalently, ownership stakes in most cases), in firm  $i$  in year  $t$ . That is, for any variable  $Z_{i,j,t}$ , its firm-year-level aggregation is:

$$\bar{Z}_{i,j,t}^{[i,t]} = \frac{1}{n_{i,t}} \sum_{j=1}^{n_{i,t}} w_{i,j,t} Z_{i,j,t}, \quad (2)$$

where  $n_{i,t}$  is the number of investors who would be voting if a contest, indexed by  $(i, t)$ , was to take place.

Moreover, because proxy voting takes place after the announcement of targeting, with an average (median) time lag of 189 (128) days, the information that investors have at the voting stage is broader than the information that dissidents had when selecting the target. We therefore assume that  $W_{i,t} \subset X_{i,t}$ . The incremental variables in  $X_{i,t}$  mostly capture information revealed since the announcement of a proxy contest, including the identity as well as the track record of the dissident.

This setup allows for factors that drive dissident targeting and investors voting that are not observed to the econometrician. The two processes in Equation (1) are simultaneous because the correlation between the two residuals that subsume the unobserved determinants,  $Corr(u_{i,t}, \varepsilon_{i,j,t})$ , is potentially nonzero. The economics of proxy fights allows us to hypothesize that the correlation is likely to be positive. That is, if the residual  $\varepsilon_{i,j,t}$ , which captures, in addition to a random noise, unobserved elements that swing investors toward supporting the activist, is overall higher, then the firm ought to be a more attractive target during the year, all else being equal. This ought to be

the case given that dissidents have some knowledge about shareholder stance beyond what can be predicted by observable characteristics.

The goal of our estimation is to uncover the determinants of investors' support for dissidents, using voting data from materialized proxy contests as well as firm-level data for the superset of targets and nontargets. Relative to this setup, a reduced-form estimation based on voted contests only (reported for completeness in Appendix A2), is potentially biased due to the non-random selection by the activists. Suppose, for example, that firm underperformance contributes to the merit of the activist agenda. Then, in the hypothetical world in which shareholders are asked to vote between the "incumbent management" and "change" in every shareholder annual meeting (firm-year), we would have observed that shareholders are more likely to vote for "change" in underperforming firms. However, when a proxy contest does take place, it is either because the target company, other things being equal, is underperforming or it is a desirable target for other reasons despite its good performance. When these two possibilities are pooled together, the relationship between the support for the dissident and underperformance becomes less clear among the observed voting records. This economic setting is analogous to the one in the classic labor economics model in which the relation between earnings and education is moderated in the observed sample of people who choose to participate in the labor market. As the level of education increases (which is positively correlated with the propensity of participation based on observables), participation by people with (unobserved) lower innate ability also increases.

We consider an alternative, potentially more familiar, specification as a sensitivity check to estimating Equation (1), taking the voting outcome as if it were a continuous variable using a two-step procedure that is analogous to the Heckman (1979) two-step methodology. In the first step, we estimate the proxy contest equation at the  $(i, t)$  level:

$$\begin{aligned} Contest_{i,t}^* &= W_{i,t}\beta + \bar{Z}_{i,j,t}^{[i,t]}\delta + u_{i,t}; \\ Contest_{i,t} &= (Contest_{i,t}^* > 0). \end{aligned} \tag{3}$$

We then derive the inverse mills ratio,  $InvMill_{i,t}$ :

$$InvMill_{i,t} = \frac{\phi\left(\frac{-W_{i,t}\beta - \bar{Z}_{i,j,t}^{[i,t]}\delta}{\sigma_u}\right)}{1 - \Phi\left(\frac{-W_{i,t}\beta - \bar{Z}_{i,j,t}^{[i,t]}\delta}{\sigma_u}\right)} = \frac{\phi\left(\frac{W_{i,t}\beta + \bar{Z}_{i,j,t}^{[i,t]}\delta}{\sigma_u}\right)}{\Phi\left(\frac{W_{i,t}\beta + \bar{Z}_{i,j,t}^{[i,t]}\delta}{\sigma_u}\right)},$$

which is then merged into observations at the  $(i, j, t)$  level. Finally, we run the second-stage linear probability regression at the  $(i, j, t)$  level:

$$Vote_{i,j,t} = X_{i,t}\gamma + Z_{i,j,t}\lambda + \mu InvMill_{i,t} + \varepsilon_{i,j,t}. \quad (4)$$

Structurally,  $\mu$  is equal to  $\rho\sigma_\varepsilon$ , and hence is expected to have the same sign as the correlation of the two residuals,  $\rho$ .

It is important to clarify how the system is identified. Normally, a system requires an exogenous shock in the selection process, or the existence of at least one variable that affects selection but has no direct impact on the voting outcome. It is challenging, however, to argue that any factor that significantly affects the motive for targeting should have no bearing on voting as both decisions are driven by the merits of the case. The system can be technically estimated without excluded variables due to its nonlinearity. In equation (4) the  $InvMill_{i,t}$  is not perfectly collinear with the other covariates in the regression. However, identification based on non-linearity alone is hardly justified as it suffers from issues that are similar to those due to a weak instrument (French and Taber (2010)).

More critical to the identification is the different levels of decision-making in the initiation of a proxy contest by the dissident and the proxy voting by the fund investors. While investors' voting decisions are driven by their individual circumstances, for example, whether they are passive managers or the specific holding in their portfolio has delivered a positive return, dissidents only process information aggregated at the potential event (or firm-year) level. For example, the presence of passive investors or shareholders with positive basis-adjusted returns among the shareholder base. This leads to a break from the collinearity between the same variables measured at the firm-year level ( $\overline{Z}_{i,j,t}^{[i,t]}$ ) and at the firm-year-investor level ( $Z_{i,j,t}$ ).<sup>15</sup> The more heterogenous are the investors holding the same target, the more separation there is between the factors relevant for individual fund voting and the information relevant for activist targeting. For example, the correlation between  $Passive_{i,j,t}$  (individual funds' passive status) and  $\overline{Passive}_{i,j,t}^{[i,t]}$  (the percentage of shares held by passive managers at the firm-year level) is as low at 0.07 in our sample. Indeed, when we form an "index function" of the covariates, the R-squared of  $Z_{i,j,t}\hat{\lambda}$  on  $\overline{Z}_{i,j,t}^{[i,t]}$ , which captures the collinearity between the set of covariates measured at different levels of aggregation (its squared root would

<sup>15</sup>Analogous settings in economics research include estimating firm-level response to product-level tariff changes or state-level policy changes such as minimum wage.

be the correlation of the two index functions), is 0.046, which is much smaller than the perfect  $R$ -squared = 1.<sup>16</sup>

Finally, it is important to recognize that in the current model activists take as given the shareholder base in potential targets. However, a dimension of selection that may impact the targeting-voting dynamics is one in which some actively-managed funds choose to invest in or divest from a firm depending on their propensity to support the activist if proxy contests materialize. While the system modeled herein allows for a correlation between activist targeting and investor voting propensity, it does not model the potential correlation between investors' selective investment and their stance toward activism along unobservable dimensions. We do, however, address this issue in two ways: First, we present a robustness check in which we include only passive funds so that discretionary investment is not an issue. Second, section 5.1.3 models investor turnover post announcement of a contest (and potentially before the record date). We find that the mutual fund shareholder turnover around proxy contests does not exceed the normal frequency of portfolio reshuffling and that the new shareholders do not vote systematically differently from the existing ones. Hence, investor selection is unlikely to affect our main results.

### 5.1.2 Discussion of Empirical Results

The results from estimating the FIML system in Equation (1) and the two-step approach in (3) and (4) are reported in Table 5. The overall pattern shown in the two panels is largely consistent. First and foremost, the estimated coefficient of correlation of the residuals,  $\hat{\rho}$ , is positive at 0.19, and so is the coefficient on the inverse mills ratio, 0.13, in the two-step estimation. Both are statistically significant at the 1% level. This confirms the hypothesis that activists are more likely to target firms with unobservables that predict stronger shareholder support, beyond the predictive ability of an econometrician who relies solely on observable information.

[Insert Table 5 here.]

The statistical relation is also consistent with anecdotal evidence that activists routinely analyze the past voting records of shareholders to gauge the extent to which they are receptive to an

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<sup>16</sup>It is worth noting that our model allows the activists to adopt general and multiple aggregation functions  $f^{[i,t]}(Z_{i,j,t})$ , other than the value-weighted average, to assess the situation at the event level. For example,  $f^{[i,t]}(Z_{i,j,t})$  can be the average characteristics of the top ten shareholders, or the dispersion of shareholder characteristics in a potential target. It remains true that any  $f^{[i,t]}(Z_{i,j,t})$  is going to have relatively low correlation with any linear function of  $Z_{i,j,t}$  because  $Z_{i,j,t}$  contains variation in investor voting stance within the same event which cannot be explained by any variable (or any functions of variables) measured at the event (firm-year level).



activist campaign, and they frequently assess the attitude of key shareholders prior to launching a campaign, or even prior to making an investment in a company.<sup>17</sup> A company may have all the attributes an activist finds attractive from a value perspective, but if the shareholder base appears difficult to persuade, the activist will be less likely to intervene. Because the SEC rules since 1992 do not prevent activists and institutional investor from communicating before the intervention becomes public (Bradley, Brav, Goldstein, and Jiang (2010), Fos (2017)), activists can often form a forecast of shareholder support that is more accurate than a statistical model based on public information.

Results in columns (1) and (2) indicate that dissidents are more likely to receive shareholder support when the target firm is underperforming (especially in terms of ROA), when the dissident has a track record of deep involvement in past campaigns (as measured by *Past campaign intensity*), when the investment is a large stake relative to the fund’s portfolio, and when the investment has been a disappointment in that the current price is even below the cost basis for the fund. Shareholders are also more likely to support dissidents in more concentrated industries (proxied by *HHI*), supporting the hypothesis that shareholder governance becomes more important when competition in the product market is weaker (Giroud and Mueller (2010)).<sup>18</sup>

Importantly, passive funds are about 12 percentage points less likely to vote for the dissidents. The same pattern is echoed in Bubb and Catan (2018) who find that passive managers are significantly more pro-management in both shareholder- and management-initiated proposals. Because the passive status of a fund is exogenous (determined at the inception of the funds and does not change over time), its strong relation between the pro-management voting attitude in proxy contests cannot be explained by reverse causality or a missing common factor that affects both.<sup>19</sup>

Appendix A2, provides reduced-form probit analyses relating voting outcomes to covariates

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<sup>17</sup>See “Dealing with Activist Hedge Funds and Other Activist Investors,” a report by Wachtell, Lipton, Rosen, & Katz, January 2017: <http://www.wlrk.com/webdocs/wlrknew/WLRKMemos/WLRK/WLRK.25490.17.pdf>.

<sup>18</sup>We have also examined the effect of the incremental industry concentration induced by common ownership, or the MHHI measure developed in Azar, Schmalz, and Tecu (2018). We find that it is not related to either voting behavior or targeting vulnerability. The work by Azar et al. suggests that firm decision making takes into account the welfare of “common owners” but does not have direct predictions of how individual investors should vote in a contest.

<sup>19</sup>It is worth noting that this result does not necessarily contradict Appel, Gormley, and Keim (2018), who show that activism is more likely to escalate to more confrontational interventions (including proxy contests), conditional on activist campaigns, if the target has more passive ownership. We show that passive investors are more likely to vote for the management, and hence dissidents are less likely to target companies with high passive ownership for proxy contests, out of all companies. Appel et al., on the other hand, identify a local effect at the cut-off between the Russel 1000 and 2000 indices, and the authors are careful to state that the relation informs a choice among firms at that range. A full set of analyses applying the Appel et al. method to our data is available from the authors upon request.

conditional on voted contests, for the full sample as well as subsamples sorted by passively- and actively-managed funds as well as the largest funds vs. the rest. Comparing the results in columns (1) and (2) of Panel A with those in Appendix A2 (full sample), we observe some differences. For example, *Prior-year stock return* and *Dividend yield*, whose coefficients are insignificant when we neglect selection, are now negatively and positively related to the propensity to support the dissident.

The relation between targeting and firm characteristics, reported in columns (4) and (5) is overall consistent with the literature. Not surprisingly, targets of proxy contests tend to have low market valuation (low Tobin's  $q$ ) which dissidents often use to criticize the incumbent management. This is consistent with Fos (2017), who finds that almost 40% of dissidents in proxy contests state that the main reason for the campaign is to reduce undervaluation. Potential targets are also large firms with a high institutional shareholder base, including public and private pensions and hedge funds, in addition to mutual funds, whose support the dissidents need to secure a victory at the contested meeting.

The last few variables in Table 5 reflect how the shareholder base is an important factor in activists' targeting consideration, which has not been systematically analyzed in the literature. Dissidents are significantly less likely to target a firm that is heavily held by passive funds, suggesting that these sophisticated investors understand that passive funds are reluctant to support their agenda. Because dissidents can potentially gain more votes with effective persuasion when the average mutual fund holding the firm is larger or its investment in the stock is more significant, these are regarded as positive signals. When a large number of investors in a firm have a negative raw return in the stock, captured by *Positive basis-adjusted return*, aggregated at the firm-year level, the firm becomes an attractive target, presumably because the loss of capital in an absolute sense leads to disappointment for investors who therefore favor a change (even after controlling for benchmark adjusted stock returns).

### **5.1.3 Selection by Funds: Voting Participation and Trading Prior to Voting**

This section closes the loop on the potential selection by actively-managed mutual funds that invest in companies partly based on their voting attitude in proxy contests. Li and Schwartz-Ziv (2018) show that shareholder trades and votes are related around shareholder meetings. A priori, the direction of the selection is unclear. A fund manager might take a "Wall Street walk" by

selling shares in a firm she perceives poorly so as to avert a vote against the manager (Admati and Pfleiderer (2009); Edmans (2009)). Alternatively, a pro-activist fund may want to accumulate a block in firms that are vulnerable to (or already in) activist situations (Kedia, Starks, and Wang (2017), He and Li (2017)). We now examine what motivates investor selection along three different margins.

**No Show.** Shareholders are not legally required to vote though most institutional shareholders do, especially after the SEC rule change in 2003 mandating disclosure of votes by mutual funds. “No show” funds are those that have holdings but do not participate in the voting process. It is difficult to classify no-show funds exactly since the disclosure of quarterly holdings does not allow us to pin down the change in holdings relative to the record date. Given this constraint, we define as no-show fund-event observations that satisfy the following criteria: (i) The fund has at least one recorded vote during the year; (ii) the fund has held the stock in the target company at both quarter end  $Q - 1$  and quarter end  $Q$ , where  $Q$  is where the record date falls; (iii) there is no disclosed vote by the fund in the target company. By these criteria, about 6.4% of the funds engaged in no-show in the average contest.<sup>20</sup>

Table 6 column (1) provides evidence regarding the underlying causes for no-show. No show is more likely when the firm is small, the stake is small (relative to both all shares outstanding and the fund’s own assets under management), and the overall institutional ownership is high. The benefit of influencing control is presumably low in these situations. Funds are more likely to skip voting if there is no ISS/Glass Lewis recommendation to follow, or they have high conformity to advisory recommendations and low variation in past voting outcomes. These factors reflect the cost of information acquisition.

[Insert Table 6 here.]

One reason commonly cited for funds’ no-show is that shares lent out on the record date cannot be voted by the owners. However, in recent years institutional shareholders have become conscious about calling back the shares on loan prior to the record date especially for high-stake voting events (Aggarwal, Saffi, and Sturgess (2015)). Our finding that passively-managed funds, which

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<sup>20</sup>The turnout rate is consistent with what other researchers report about an overall participation rate of around 75%, and much lower participation rate by retail investors at around 30%, see, e.g., Cvijanovic, Groen-Xu, and Zachariadis (2017).

are significantly more likely to lend out their shares, are no more likely to skip voting confirms that stock lending is unlikely a driving force in this setting. The results are overall consistent with mutual funds’ common justification for no-show that abstention from voting reflects the fact that the cost of casting an informed vote exceeds the expected benefit.

**Buy-into-Voting and Sell-out-of-Voting.** Funds can buy into a company after the latter has become the target of an activist but before the record date, analogous to what risk arbitrageurs do in M&A. Again, with quarterly holdings information, we can only approximate buy-into-voting by requiring that a voting fund has disclosed holdings in quarter  $Q$  but not in quarter  $Q - 1$  or  $Q - 2$ , where  $Q$  is the quarter that contains the record date. According to this definition, 5.5% of the funds at the voting stage are new entrants. Table 6 column (2) analyzes the characteristics of buy-into-voting funds, relative to all funds that cast votes in the contest. Overall, actively managed funds that buy-into-voting seem to be motivated by poor performance (by valuation, ROA, and stock returns), consistent with an “arbitrage” motive similar to that in M&A for targets that potentially benefit more from a change (Jiang, Li, and Mei (2017)). Finally, in unreported results we confirm that the voting outcomes of the buying-in funds are not significantly different from the existing funds in the same events.

Next, we classify a actively-managed, sell-out-of-voting fund as a non-voting fund that disclosed holdings in quarters  $Q - 2$  and  $Q - 1$  but not in  $Q$ .<sup>21</sup> We find that only 1.4% of the funds are sell-out-of-voting funds by this definition. Selling funds have significantly smaller stakes in the target companies compared to voting funds. Because proxy advisors usually issue recommendations after the record date, funds that want to get in or out for voting-related motives cannot make their decisions conditional on the recommendations – hence these variables are omitted from the regressions. In a placebo test in which we set a “pseudo-event time” to be two quarters prior to the announcements of proxy contests, we find that the “pseudo buy-into” and “pseudo sell-out” rates to be 4.9% and 1.3%, respectively, not significantly different from the shareholder turnover levels around the proxy contests.

Overall, the evidence in this section mitigates the concern that the shareholder turnover biases the estimation in the joint system of (1a) and (1b) in which we assume that activists take the shareholder base as given.

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<sup>21</sup>In both cases, the requirement of holdings status in  $Q - 2$  rules out frequent inter-quartile portfolio changes by some funds. The results are very similar if we drop the  $Q - 2$  filter.

## 5.2 Activist Targeting Incorporating Investor Pro-Activist Stance and Persuadability

The evidence presented earlier (section 5.1.2 and Table 5) is consistent with the idea that an investor’s expected level of support for an activist, conditional on firm and event characteristics that are observable to the econometrician, is a significant element of activists’ decision in selecting targets. By definition, this investor stance cannot be explained by observable characteristics, but is an attribute that both the company and the activist can gauge in forming their strategies.

To give content to investor support, we develop measures that capture investors’ inherent “pro-activist stance” based on the directional voting outcomes that took place prior to each contest. We also form proxies for the extent to which investors have exhibited the willingness to learn and be persuaded, and for the extent to which the investor base is influenced by the leading proxy advisors. We then examine how the measures for investor “pro-activist stance” and “persuadability” of the shareholder base at each potential target affects the activists’ selection of these target firms, and how these measures predict differentially proxy contests that are eventually voted upon, settled, or withdrawn.<sup>22</sup>

### 5.2.1 Investor Pro-Activist Stance

**A Fund Fixed Effect-Based Measure** The measure is based on the information that one can derive from a model for investor voting behavior, relative to peers voting in the same contest. Consider the following linear probability model:

$$Vote_{i,j,t} = Z_{i,j,t}\lambda + \eta_t + \alpha_{i,t} + \Phi_j + \varepsilon_{i,j,t}, \quad (5)$$

where time-varying fund and fund-event variables are included. Moreover,  $\eta_t$  is the yearly fixed effect (estimated with yearly dummy variables),  $\alpha_{i,t}$  is the event fixed effect, and  $\Phi_j$  is the fund fixed effect capturing a fund’s inherent pro-activist stance.  $E[\alpha_{i,t}] = E[\Phi_j] = 0$ , but fixed effects could be correlated with the covariates. Conditional on a given contest, a fund that votes in favor of the activist should be considered more pro-activist than a fund that votes in favor of the management in the same event. Importantly, the inclusion of the event fixed effect  $\alpha_{i,t}$  filters out

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<sup>22</sup>In contemporaneous work, Kedia, Starks, and Wang (2017) propose three proxies for what they term “activism-friendly” institutions, based on ownership changes in the past, and ask how the presence of such institutions affects the likelihood of hedge fund activism and its ex-post success.

the influence due to endogenous matching between materialized contests and firms because this measure uses only information from the within-event variation in fund voting.

We estimate equation (5) using a dual fixed effect model that accommodate two high-dimensional fixed effects. From the estimation we recover  $\widehat{\Phi}_j$ .<sup>23</sup> We construct estimates of  $\widehat{\Phi}_{j,t}$  annually for all funds, using rolling time windows from the beginning of the sample up to the previous year,  $t - 1$ , to ensure that it is based on information available (and observable to the activists) at the time of targeting. For this reason, we do not construct the measure for the first year of our sample period. In order to construct a stance measure that is net of the variation due to fund characteristics, we use the residual,  $\widetilde{\Phi}_{j,t}$ , from the following cross-sectional regression for each fixed-effect stance estimate:

$$\widehat{\Phi}_j = \pi_0 + \pi_1 \text{Fund Size}_j + \pi_2 \text{Fund Family Size}_j + \pi_3 \text{Passive}_j + \widetilde{\Phi}_j. \quad (6)$$

Covariates in (6) that vary over the estimation period are averaged.

To the activists, the relevant investor stance is an aggregation of investor stance at a potential target. Aggregation can potentially take many different functional forms. We consider the following two metrics that are simple and intuitive but our analysis is not restricted by the particular functional form with which we aggregate investor stance:

$$\text{Average of all investors:} \quad \overline{\Phi}_{i,t} = \frac{1}{n_{i,t}} \sum_{j=1}^{n_{i,t}} w_{i,j,t} \widetilde{\Phi}_{j,t}, \quad (7)$$

$$\text{Average of the top investors:} \quad \overline{\Phi}_{i,t} = \frac{1}{n_{i,t}^{20\%}} \sum_{j=1}^{n_{i,t}^{20\%}} w_{i,j,t} \widetilde{\Phi}_{j,t}. \quad (8)$$

The first measure averages over all investors in a given company using value weights while the second measure averages over the smallest number of the largest investors who collectively own at least 20% of the target  $i$  in time  $t$ , denoted  $n_{i,t}^{20\%}$ . Among all contests, the average (median) number of in-sample investors is 125 (82) and the average (median) for the top investors that collectively own 20%, as shown in Table 3, panel E, is 37 (14). Investor concentration flattens out considerably after the 20% mark due to skewness in investors' stake size. Hence, 20% is a reasonable threshold

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<sup>23</sup>Generally, estimated fixed effects are often time inconsistent due to the relatively small sample size within a typical fixed effect group and the large number of fixed effect groups relative to the sample size. This concern is mitigated due to the fact that the event fixed effects are based on quite large groups. The average number of observations for an event is 125.

characterizing activists’ targeted effort in winning the support of major shareholders. The average of these measures is close to zero by construction.

It is important to note that although event fixed effects filter out the endogeneity in activists’ selection of a target firm, the measure is still potentially affected by a different source of endogeneity, namely, the non-random matching between (actively-managed) funds and companies. If all funds participate in all proxy contests, or if investors’ participation in proxy voting is unrelated to their attitude toward activism, then  $\bar{\Phi}_{i,t}$  is an unbiased measure for investor stance. In other words, the following identifying assumption is sufficient for these measures to be unbiased:

**Identifying assumption 1.** For a given fund, the average pro-activist stance of all its peers (other funds voting in the contest), averaged over all events that this fund participates in, is equal to the investor population average (which is normalized to zero).

It is, however, plausible that a pro-activist investor may invest in companies with like-minded fellow shareholders. As a result,  $\bar{\Phi}_{i,t}$  may underestimate the pro-activist stance of companies with a “diligent” shareholder base because all investors involved in the same events are benchmarked to the average stance of their diligent peers. This is analogous to the case in which a class fixed-effect-adjusted grade point average (“GPA”) of an excellent student underestimates the student’s academic performance because strong students tend to take more challenging courses with stronger peers. For this reason, we now explore an alternative measure that addresses this specific issue.

**Pairwise Rank Measure** An alternative proxy for pro-activist stance, which does not require Identifying Assumption 1, is based on pairwise comparisons of the pairs’ “common support,” that is, the common events that any pair of mutual funds participated in. The methodology, developed in operations research (Marden (1995) and Jamieson and Nowak (2011)), ranks a collection of objects based on pairwise comparisons, that is, by the ranking of two objects at a time. The goal is to form a ranking over a set of  $n$  mutual funds in our sample,  $\Theta = (\theta_1, \theta_2, \dots, \theta_n)$  with a mapping  $\sigma : \{1, 2, \dots, n\} \rightarrow \{1, 2, \dots, n\}$  that prescribes an order

$$\sigma(\Theta) : \theta_{\sigma(1)} \prec \theta_{\sigma(2)} \prec \dots \prec \theta_{\sigma(n)}$$

where  $\theta_j \prec \theta_k$  means that fund  $j$  precedes fund  $k$  in the ranking, or that the former is more pro-activist than the latter.

A full sorting, with ties allowed, can be obtained using pairwise comparisons, where the ranking of any pair of funds  $j$  and  $k$  is based on all  $n_{j,k}$  contest events in which both funds  $j$  and  $k$  voted on. We rank,

$$\theta_j \prec (\text{or } \prec, \text{ or } \sim) \theta_k, \text{ if } \sum_{(i,t)=1}^{n_{j,k}} \text{Vote}_{i,j,t} > (\text{or } <, \text{ or } =) \sum_{(i,t)=1}^{n_{j,k}} \text{Vote}_{i,k,t}.$$

In other words, any pair of funds are ranked based on their votes in the *common* contests so that if their voting outcomes differ then one can make an inference about their relative pro-activist stance.<sup>24</sup> Because of the common support requirement, a pairwise comparison is not distorted by potentially endogenous matching between funds and events. All pairwise comparisons ( $C_n^2 = n!/2$ ) contribute to the full ranking. Following our earlier example concerning student grading, this is equivalent to comparing any pair of two students based on the common courses they took, and then ranking all students based on the pairwise ranking.

Next, let  $R_{j,t} \in \{1, 2, \dots, n_t\}$  be the resulting ranking of fund  $j$  among all  $n_t$  funds based on all historical information up to year  $t - 1$ . As in Section 5.2.1, we do not construct the measure for the first year of our sample period. Moreover, to ensure that the rank measure is uncorrelated with fund characteristics we use the residual from the following regression similar to (6):

$$R_j = \pi_0 + \pi_1 \text{Fund Size}_j + \pi_2 \text{Fund Family Size}_j + \pi_3 \text{Passive}_j + \tilde{R}_j \quad (9)$$

To facilitate the interpretation we normalize  $R_j$  and  $\tilde{R}_j$  to be a uniformly distributed variable bounded between 0 and 1, conforming to the scale of a rank variable. Finally, we construct the following two metrics for each firm-year analogous to (7) and (8):

$$\text{Average of all investors: } \quad \bar{R}_{i,t} = \frac{1}{n_{i,t}} \sum_{j=1}^{n_{i,t}} w_{i,j,t} \tilde{R}_j, \quad (10)$$

$$\text{Average of the top investors: } \quad \bar{R}_{i,t} = \frac{1}{n_{i,t}^{20\%}} \sum_{j=1}^{n_{i,t}^{20\%}} w_{i,j,t} \tilde{R}_j. \quad (11)$$

Both measures are bounded between 0 and 1, and the average is close to 0.5.

<sup>24</sup>The fact that investors might have a different interpretation of the event characteristics (e.g., the attribution of a firm's poor performance) does not affect the consistency of this measure since the variation in a fund's interpretation should not lead to a directional bias. If an investor evaluates events in a way that is systematically optimistic or pessimistic towards the management, then such a tendency will be captured by the inherent stance.



The proxy  $R_j$  is not affected by activists’ endogenous targeting at the firm-year level. As with the measure based on fund fixed effects, it only uses within-event fund voting information so that any unobserved heterogeneity at the firm-year level is differenced out. More importantly, it does not require Identifying Assumption 1 because the “common support” ensures that it is not affected by the selection bias due to different funds matching with different companies. This measure, however, requires its own identifying assumption, specified below:

**Identifying Assumption 2:** The ranking of funds’ pro-activist stance is transitive; that is, if  $\theta_j < \theta_k$  and  $\theta_k < \theta_l$  based on respective pairwise comparisons, then in expectation, fund  $j$  is more pro-activist than fund  $l$ .

This assumption is intuitive but its actual validity is an empirical question. In the rank data  $R_j$  we have constructed, we find that cases showing a contradiction constitute fewer than 0.3% of all possible permutations for which we have direct comparison data. Hence, the assumption is reasonable both theoretically and empirically.

### 5.2.2 Modelling Investor “Persuadability”

When a proxy contest proceeds to voting, both the incumbent management and the dissident shareholder ought to expect that their probability of winning is not significantly below 0.5. Such an expectation is justified by the statistics of our sample (see Table 3 Panel A). To the extent that activists anticipate a narrow margin in ex post materialized contests then it is plausible that they would choose to target companies with shareholders who are willing to heed the information and analysis supporting the dissidents’ agenda. Conditional on a proxy fight, both sides are also more likely to bring the fight to a vote if they feel that there is more room for persuasion.

We model persuadability with a proxy for the degree to which shareholders learn and revise their beliefs regarding the benefit from either the management or activists’ plan. Given that materialized contests represent near-pivotal situations, a fund with a diffuse prior belief should exhibit high variation among its own votes cast in different events. In other words, a fund that is not beholden to a specific narrative, be it that of management or the dissident, and is willing to carefully assess the merit of each case is likely to have high variation in the votes cast over time. Following this idea, we construct a within fund variation measure, denoted  $\sigma_j$ , which is the standard deviation of a fund’s voting outcome in the years prior to the contest. As in Section 5.2.1, we then form the residual measure,  $\tilde{\sigma}_j$ , and its aggregation at the firm-year level,  $\bar{\sigma}_{i,t}$ , to obtain

*Past voting variation.*

### **5.2.3 Influence by Proxy Advisors**

The literature has shown that leading proxy advisory firms, notably ISS and Glass Lewis, exert considerable influence on the voting behavior of their institutional investor clients. Previous work by Ertimur, Ferri, and Oesch (2013) and Malenko and Shen (2016) shows that ISS sways up to 30% of the votes in routine proxy votes, mostly in uncontested situations, using data from Voting Analytics. To gauge the potential influence of advisors in proxy contests, in unreported analysis we conduct a diagnostic test by adding proxy advisors' recommendation as an additional regressor to the reduced-form voting prediction model find that the marginal probability for this regressor is 36.0% ( $t$ -statistic = 10.6). While acknowledging that the causal effect is not identified by such a simple regression, we note that the magnitude of the correlation between proxy advisors' recommendations and voting outcomes is comparable to findings for uncontested situations. Important to our setting, Li (2016) shows that since the dramatic increase of firm coverage by Glass Lewis in 2007, which is the first year of contests in our sample, competition has mitigated the potential pro-management bias by ISS due to its conflict of interest from other businesses with client firms.

A priori, it is unclear whether activists prefer an institutional shareholder base that is more likely to be swayed by proxy advisors since those investors subscribe to the latter's voting guidelines and are reluctant to make their own decisions due to sheer "laziness," lack of resources, or due to avoidance of conflicts. On the one hand, independently minded investors might pay more heed to the debate between management and the dissident in order to assess their merits. On the other hand, dissidents can concentrate their effort on persuading only one or two institutions, namely, the leading proxy advisors, if a large proportion of the shareholders conform to or follow their recommendations.

The stance of the leading proxy advisors is often times crucial for activists' success. Base on supporting rates, ISS is more pro-activist than the average shareholder (52.3% vs. 49.5%). More importantly, activists are able to win 69.6% of the contests with the proxy advisor's blessing, and only 34.9% absent such support. Given these stylized facts, the persuasion of the leading proxy advisors is of even higher (and more concentrated) stake for the activists than engaging individual shareholders.<sup>25</sup>

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<sup>25</sup>Industry publications (e.g., [www.theactivistinvestor.com/The\\_Activist\\_Investor/Proxy\\_Advisors.html](http://www.theactivistinvestor.com/The_Activist_Investor/Proxy_Advisors.html)) acknowledge

To assess individual funds’ conformity to leading advisors’ recommendation, we estimate the  $\beta_j$  loading coefficient from regression fund  $j$ ’s voting-for-dissident on the “ISS/GL composite recommendation” using all the events the fund voted in. In the composite recommendation, we use the recommendation (1 for the dissident and 0 for the management) of either ISS or Glass Lewis if only one of them provides a recommendation, or the average if both issue recommendation. The event is dropped if no recommendation is available.

Appendix A3 reports the fund families that demonstrate the highest and lowest conformity to the leading proxy advisors. First American Funds and Bridgewater Capital lead with their  $\beta_j$  coefficients being 0.97 and 0.92. On the other end, Gabelli Asset Management and Rydex Investments, with  $\beta_j$  coefficients that are slightly negative at  $-0.12$  and  $-0.02$ , seem to cast vote in ways completely independent from what are recommended by the advisors. Perhaps counter to common perception, we find that passive funds have  $\beta_j$  values that are, on average, 0.12 lower than active funds (significant at the 5% level). That is, passive funds are less likely to follow ISS, possibly due to the fact that most passive funds belong to large mutual fund complexes (such as BlackRock) which are able to devote resources to in-house research when casting their votes.<sup>26</sup>

We then obtain  $\tilde{\beta}_j$  as the residual from a regression of  $\beta_j$  on the most salient fund characteristics analogous to (9) using information available at each point of time. Finally, we obtain the *Conformity to proxy advisors* measure,  $\bar{\beta}_{i,t}$ , by aggregating at the firm-year level for all shareholders and for the largest shareholders holding up a 20% stake in the target firm, analogous to (7) and (8).

#### 5.2.4 Shareholder Stance Predicts the Occurrence and Outcomes of Proxy Contests

Table 7 provides results from estimating the activist targeting equation with the additional proxies for stance developed in this section. The sample for this regression consists of firm-year level observations for all non-targets and all materialized contests. Importantly, in this analysis we are able to include contests that do not go into the voting stage, that is, proxy fights that are eventually settled or withdrawn. Because the two pro-activist stance measures are highly correlated (with a correlation coefficient of 0.67), we include them separately in different regressions. *Past*

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and suggest that activist investors solicit endorsements from leading proxy advisors. The communication resembles corporate meetings with debt rating agencies or equity analysts.

<sup>26</sup>The fact that passive funds rely less on ISS recommendations contrasts with the finding of Iliev and Lowry (2014) analyzing votes in mostly noncontested events although the relation between ISS-conformity and fund size is consistent with their evidence.

*voting variation* and *Conformity to proxy advisors* have a modest correlation coefficient of 0.13, and are not meaningfully correlated with the pro-activist stance measures. Panel A presents results using proxies for investor stance based on all investors in a given firm-year while the proxies for stance in Panel B are based on measures representing the top 20% investors.

[Insert Table 7 here]

Columns (1) and (3) of Panel A show that the pro-activist stance of a company’s shareholder base, based on historical information and known at the time of engagement, is a significant (at the 5% and 1% levels) predictor for whether the company becomes a target, conditional on all firm characteristics and other observable investor characteristics aggregated at the firm-year level. For a two-standard-deviation increase around the mean of investors’ pro-activist stance, the probability increases by 29 (76) basis points for the firm to become a target, other things being equal. Such a magnitude represents about 24–63 percent of the unconditional probability of targeting. Similarly, a two-standard deviation increase in the measures for persuadability, namely, *Past voting variation*, is associated with an increase of 53 basis points in the probability of targeting. The analogous marginal effect of *Conformity to proxy advisors* is an increase of 32 basis points. Both effects are economically large, indicating that activists are more motivated when there is greater room for persuasion, directly toward shareholders or indirectly through the proxy advisors.

Columns (2) and (4) adopt an unordered multinomial logit model to explore how shareholder stance and other covariates predict contests with different outcomes (voted, settled, and withdrawn), relative to the base outcome of “non-events,” in an integrated estimation framework. Several interesting findings emerge. First, while it is not surprising that contests that are ex post withdrawn bear the weakest relation with shareholder pro-activist stance, it is intriguing that fund stance is more strongly related to settled than voted contests. In other words, materialized contests are more likely to settle, rather than proceed into the voting stage, when shareholders’ support is stronger conditional on other event characteristics. This is consistent with Bebchuk et al. (2017) who posit that management is more likely to engage the activists for a settlement when the latter pose a more credible threat. In addition, since proxy solicitation is costly for both parties the activists may consider settlements as an appealing outcome if they accomplish the same goals.

Second, when shareholders are more flexibly minded, contests are more likely to result in voting rather than get settled or withdrawn. A materialized contest already represents a situation

in which the incumbent and activist disagree. As such, both sides should be motivated to engage shareholders for their support if the shareholders are expected to exercise careful judgment based on the evidence presented on the specific situation, which makes voting a more likely outcome. Relatedly, contests are also more likely to proceed to the voting stage if shareholders are more influenced by the proxy advisors, suggesting that leading proxy advisors occupy a unique position shaping the proxy votes by mutual funds (Bubb and Catan (2018) and Bolton, Li, Ravina, and Rosenthal (2018)).

Finally, the coefficients on  $q$ , stock return, and dividend yield, are largest in magnitude for contests that are subsequently withdrawn. If one views ex post withdrawn contests as more likely to be of “low quality” ex ante, then firm performance seems to be the most powerful factors to fend off the relatively “frivolous” contests.

Results in Panel B, relating contests to investor stance based on the top 20% investors in each firm-year, are qualitatively similar to those in Panel A. In other words, if activists select targets based on the expected stance and persuadability of the largest shareholders, the outcomes are very similar compared to the situation where the decision is made on a full shareholder base.

## 6 Conclusion

Using a comprehensive sample of proxy contests and mutual fund voting records from 2008 to 2015 we study what determines mutual funds’ voting patterns in contested meetings and how investors’ voting and dissidents’ targeting decisions are jointly determined in equilibrium. Certain firm level variables, such as Tobin’s  $q$ , or stock price performance, negatively predict funds’ support for a dissident. We find that proxy advisory firms’ endorsement is an important predictor for votes in favor of a dissident. More importantly, there is substantial variation in mutual funds voting. Passively-managed funds are less likely to vote for a dissident, while higher abnormal returns of same-industry firms in funds’ portfolios or lower basis-adjusted returns predict more support. Our selection model reveals a positive correlation between the propensity for targeting by dissidents and that of pro-dissident voting by investors, both based on the observables and unobservables. This finding suggests that a relatively pro-activist shareholder base is an important criterion for activists in picking their proxy contest targets.

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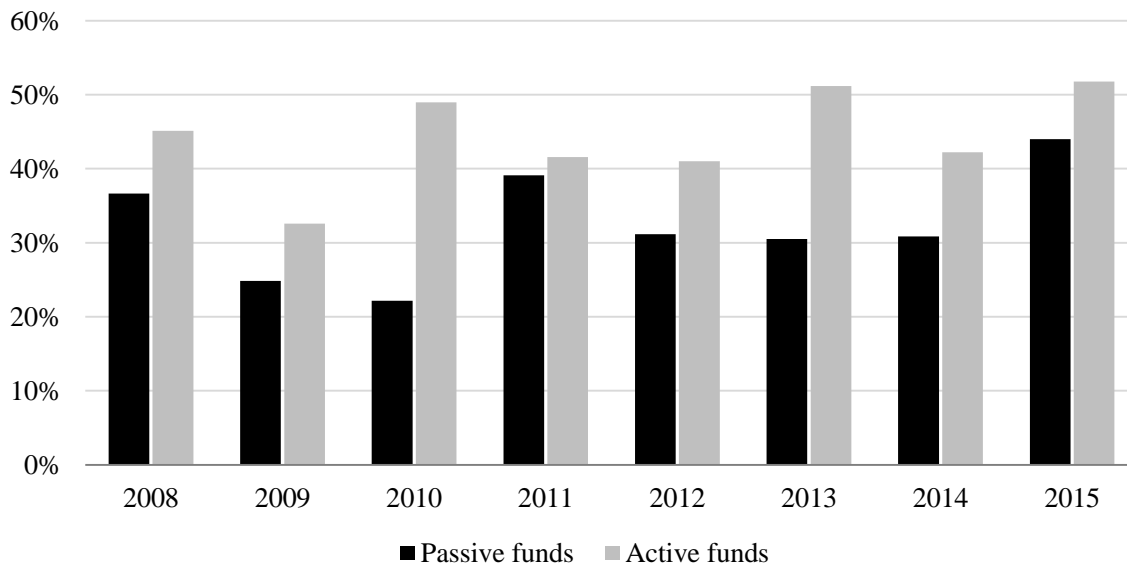


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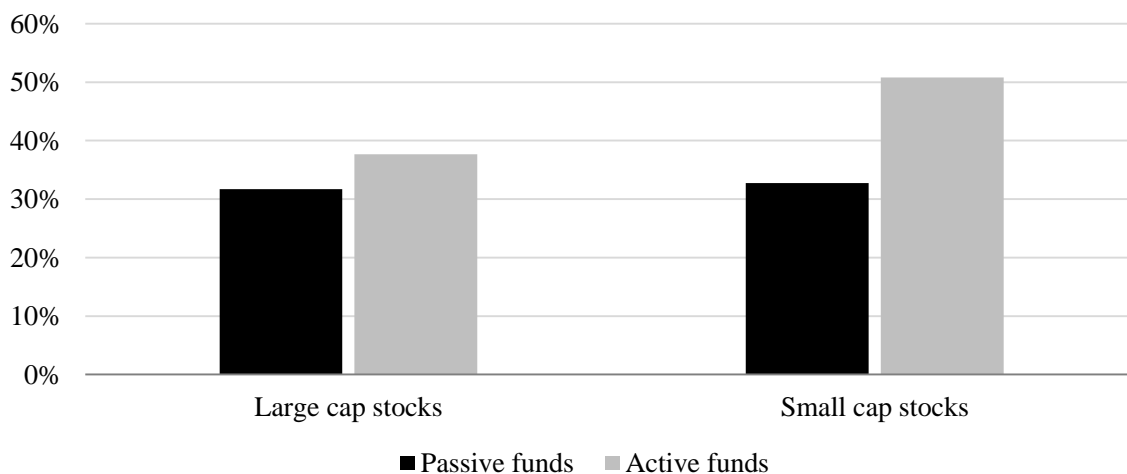
### Figure 1: Mutual Funds' Support for Dissidents in Proxy Contests

This figure shows support rates by passive and active mutual funds for dissidents in proxy contests over the period between fiscal years 2008 and 2015. In Panel A, we report how support for dissidents varies over time separately for passive and active funds. We first average the vote across funds in a given event before averaging across all events in a year. The dark bars plot the average vote for dissidents by passive funds per year. The grey bars plot the corresponding average vote in favor of dissidents by active funds. In Panel B we report how support for dissidents by passive and active funds varies by firm size. We first average across funds in a given event before averaging across all events in our sample. Large (small) cap stocks are those that are larger (smaller) than the median target firm in our sample.

#### Panel A: Yearly support for dissidents by passive and active funds



#### Panel B: Mutual funds' support for dissidents in large and small cap stocks



**Table 1: Top Ten Fund Family Votes in DuPont’s Proxy Contest with Triam Partners**

This table reports information on ownership and voting by DuPont’s top ten mutual fund families at the quarter end immediately prior to DuPont’s proxy contest that took place on May 13, 2015. Fund family holdings are from the Thomson Reuters 13F database and Edgar 13F filings. Fund voting records are from N-PX filings on Edgar. For each fund, we use a computer script to download the fund name, as well as each portfolio firm’s name, CUSIP, meeting date, meeting type, proposal number, proposal text, sponsor, management recommendation, and vote cast. We then extract its votes cast for the dissident slate at DuPont’s meeting. Column (1) provides the number of funds within a family that hold DuPont stock, and column (2) reports the number and percent of passively managed funds that hold the stock. Columns (3) provides each family’s aggregate ownership as a percentage of outstanding stock. Column (4) provides the fraction of funds that voted for the dissident slate.

Fund family name	No. of funds holding DuPont at quarter end before meeting (1)	No. (%) of passive funds (2)	% of outstanding stock (3)	% of funds voting “For” dissident slate (4)
BlackRock	47	39 (83%)	6.30%	2.1%
American Funds (Capital Group)	11	0 (0%)	6.12%	90.9%
Vanguard Group	27	19 (70%)	5.76%	0%
State Street	17	17 (100%)	4.60%	0%
Fidelity Investments	37	0 (0%)	2.66%	97.3%
Top 5 families	139	75 (54%)	25.44%	--
T. Rowe Price Group	26	0 (0%)	1.95%	76.9%
Franklin Resources	6	0 (0%)	1.75%	16.7%
Northern Trust Investments	9	7 (78%)	1.42%	100%
Janus Capital Group	6	0 (0%)	1.20%	100%
Delaware Investments	11	0 (0%)	0.87%	100%
Top 10 families	197	82 (42%)	32.63%	--

**Table 2: Proxy Contests by Year, Industry, and Dissident Type (2008 – 2015)**

This table provides descriptive statistics on proxy contests by year in Panel A, by industry in Panel B, and by dissident type in Panel C. We identify proxy contests through contested proxy statements (PREC14A and DEFC14A), 13D filings, as well as SharkRepellent, a data provider that specializes in corporate governance. These events are then matched to the Compustat and CRSP databases. Panel A reports the annual number of proxy contests that were either voted, settled, or withdrawn. In Panel B, columns (1) and (2), provide the number and proportion of contested events within each Fama-French 12 industry classification, the proportion of Compustat firm-year pairs within the same Fama-French 12 industries is given in column (3), and column (4) provides the *t*-statistic for the difference between columns (2) and (3). In Panel C, columns (1) and (2) provide the number and proportion of proxy contests by dissident type, and the number and proportion of unique investors by dissident type are shown in columns (3) and (4).

**Panel A: Proxy contests by fiscal year**

	Voted	Settled	Withdrawn	All events
	(1)	(2)	(3)	(4)
2008	30	48	6	84
2009	40	31	7	78
2010	20	16	6	42
2011	18	16	5	39
2012	18	23	5	46
2013	16	22	4	42
2014	19	17	5	41
2015	27	21	5	53
Total	188	194	43	425

**Panel B: Proxy contests by Fama-French 12 industry classification**

	No. of events	% in industry	% among Compustat firms	<i>t</i> -stat. of diff. columns (2) and (3)
	(1)	(2)	(3)	(4)
Consumer Non-Durables	15	3.53%	2.80%	0.81
Consumer Durables	7	1.65%	1.42%	0.37
Manufacturing	28	6.59%	5.25%	1.11
Energy	15	3.53%	5.14%	-1.79
Chemicals and Allied Products	9	2.12%	1.48%	0.91
Business Equipment	73	17.18%	11.00%	3.37
Telecommunications	11	2.59%	1.90%	0.89
Utilities	6	1.41%	2.51%	-1.92
Wholesale and Retail	46	10.82%	4.86%	3.95
Healthcare, Medical Equipment, and Drug	52	12.24%	8.36%	2.44
Finance	98	23.06%	40.72%	-8.62
Other	65	15.29%	14.57%	0.41
Total	425	100%	100%	

**Panel C: Proxy contests by type of dissident**

	No. of proxy contests	% of total	No. of unique dissidents	% of total
	(1)	(2)	(3)	(4)
Hedge fund	315	74.12%	146	61.09%
Individual investor	73	17.18%	59	24.69%
Public and private companies	28	6.59%	28	11.72%
Pension fund/plan	6	1.41%	3	1.26%
Bank and insurance firm	3	0.71%	3	1.26%
Total	425	100%	239	100%

**Table 3. Summary Statistics for the Sample of Contested Events that Reached a Vote**

This table provides summary statistics for the subsample of contested events that reached a vote. Columns (1)-(3) in Panels A, B and C provide the average, median and standard deviation for variables related to event, fund, and fund-event characteristics in proxy contests. *Dissident win* equals 1 if a dissident wins the voted contest, and 0 otherwise. *Support for dissident* is the percent of “For” votes for a dissident. *ISS for dissident (Glass Lewis for dissident)* is an indicator equal to 1 if ISS (Glass Lewis) recommends for a dissident’s slate, and 0 when the recommendation is to vote against the dissident. *Hedge fund dissident* is an indicator equal to 1 if the dissident is a hedge fund, and 0 otherwise. *# past events by dissident* equals the dissident’s past interventions since 1994 or the earliest year available, scaled by the number of years. *Past campaign intensity* equals  $(\#Communication \times 1 + \#Proposal \times 2 + \#Confront \times 3) / \# \text{ of years}$ , where *#Communication* is the number of events in which the dissident seeks to communicate with the board/management, *#Proposal* is the number of events in which the dissident submits shareholder proposals, and *#Confront* is the number of events in which the dissident threatens to sue or launch a proxy contest, initiates a proxy contest, a lawsuit, a takeover bid or wants board representation. *Announcement return* is the cumulative abnormal return (“CAR”) between -10 days and +10 days around the announcement of a proxy contest. *Passive fund* is a dummy variable equal to 1 for a passively managed fund, and 0 otherwise. *% disagreement within family past year* provides the percent of proxy contests in the previous year for which there is disagreement in voting within the fund family, where disagreement arises if at least one fund voted in a different direction from other funds within the same fund family. *Fund total assets*, *Investment as % of fund total assets*, and *Investment as % of firm equity* are measured at the quarter end before the contested meeting.  *Holding horizon* is the number of quarters a fund holds the stock. *Sub-port CAR [-10,+10]* is the CAR around the announcement of activism measured for the mutual fund's sub-portfolio containing all stocks in the same industry as the target firm. *Positive basis-adjusted return* is an indicator equal to 1 if the percentage deviation of the current stock price from the aggregate cost basis is positive, and 0 otherwise. Columns (4)-(6) in Panels A, B and C provide support rates for dissidents’ slates at low level and high level for each of the characteristic variables. For *Hedge fund dissident*, *Passive fund*, and *Positive basis-adjusted return*, low level takes a value of 0, while high level has a value of 1. For all other variables, the cutoff is the median.

Panel D provides the average, median, and standard deviation for firm characteristics, the difference with same SIC 4 industry-year Compustat firms, and the difference with the propensity score matched firms by matching each event firm to a control firm from the same year and the same industry (2-digit SIC) with the closest propensity score, where the propensity score is estimated using all the covariates defined below. *MV* is market capitalization in billions of dollars. *B/M* is the market-to-book ratio defined as (book value of equity)/(market value of equity). *q* is defined as (book value of debt + market value of equity)/(book value of debt + book value of equity). *ROA* is return on assets, defined as EBITDA/assets. *Leverage* is defined as the ratio of debt to the sum of debt and equity, all in book values. *Prior 12-month stock return* is the buy-and-hold stock return during the 12 months prior to the contested meeting. *Dividend yield* equals (common dividend + preferred dividend)/(market value of common stock + book value of preferred). *Institutional ownership*, is the fraction of shares held by institutional investors, as reported by the Thomson Reuters Ownership Database. *HHI* is the Herfindahl-Hirschman index of sales. *MHHI* is the modified Herfindahl-Hirschman index or the adjustment of industry concentration for common. *MHHID*, or MHHI delta, is the difference between MHHI and HHI. All of the variables above, except *Prior-year stock return* and *Institutional ownership*, are measured at the fiscal year end before the contested meeting. Panel E provides information on the ownership profile for target firms, non-target firms, and the propensity-score matched firms, respectively. We report the smallest number of largest mutual funds that reach given ownership thresholds. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5% and 1% levels, respectively.

**Panel A: Event characteristics**

	Average	Median	Std. Dev.	Support for dissident slate		
	(1)	(2)	(3)	Low level	High level	<i>t</i> -stat. diff. columns (4) and (5)
				(4)	(5)	(6)
Dissident win	49.5%	0%	50.1%			
Support for dissident	40.5%	41.0%	36.0%			
ISS for dissident	52.3%	100%	50.1%	17.8%	57.5%	-69.03
Glass Lewis for dissident	23.3%	0%	42.4%	36.8%	58.8%	-28.25
Hedge fund dissident	68.8%	100%	46.0%	25.3%	42.1%	-27.97
# past events by dissident	2.16	1.00	3.19	37.4%	36.1%	2.29
Past campaign intensity	3.48	3.33	3.21	37.2%	36.4%	1.33
Announcement return	5.95%	3.76%	21.46%	37.5%	41.4%	-6.57

**Panel B: Fund characteristics**

	Average	Median	Std. Dev.	Support for dissident slate		
	(1)	(2)	(3)	Low level	High level	<i>t</i> -stat. diff. columns (4) and (5)
				(4)	(5)	(6)
Passive fund	38.6%	0	48.7%	40.0%	31.2%	15.04
% disagreement in family past year	5.51%	0	11.19%	36.3%	36.6%	-0.47
Support rate for dissidents past year	34.83%	33.33%	33.26%	31.1%	41.2%	-15.05
Fund total assets (\$ billions)	4.29	0.39	22.60	35.6%	35.8%	-0.29
Investment as % of fund total assets	0.51%	0.13%	2.15%	36.6%	34.8%	2.35
Investment as % of firm equity	0.20%	0.02%	0.73%	35.3%	36.1%	-1.11

**Panel C: Fund-event characteristics**

	Average	Median	Std. Dev.	Support for dissident slate		
	(1)	(2)	(3)	Low level	High level	<i>t</i> -stat. diff. columns (4) and (5)
				(4)	(5)	(6)
Holding horizon (quarter)	7.49	5.00	7.96	36.0%	35.4%	0.68
Sub-port CAR [-10, +10]	2.99%	1.72%	15.09%	36.6%	38.1%	-1.69
Positive basis-adjusted return	79.1%	100%	40.3%	39.7%	35.9%	5.44

**Panel D: Firm characteristics**

	Summary statistics			Difference with same industry-year Compustat firms		Difference with PSM firms	
	Average	Median	Std. Dev.	Avg. Diff.	<i>t</i> -stat. of Diff.	Avg. Diff.	<i>t</i> -stat. of Diff.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
MV (\$ billions)	1.85	0.30	6.07	-1.72**	-2.50	-0.23	-0.30
B/M	0.82	0.71	0.68	0.04	0.49	0.06	0.50
<i>q</i>	1.45	1.18	0.81	-0.20**	-2.07	-0.15	-1.14
ROA	6.03%	7.85%	19.71%	0.55%	0.34	0.24%	0.15
Stock return	-4.63%	-0.58%	43.19%	-8.90%*	-1.69	-6.78%	-1.06
Leverage	0.23	0.16	0.24	-0.02	-1.06	0.02	0.83
Dividend yield	1.69%	0.47%	2.69%	-0.47%	-1.56	-0.08%	-0.19
Institutional ownership	0.51	0.57	0.32	0.08***	3.27	-0.05	-1.28
HHI	0.28	0.23	0.19	-0.013	-1.12	-0.009	-0.70
MHHI	0.49	0.46	0.18	-0.009	-0.56	-0.004	-0.39
MHHID	0.21	0.19	0.15	0.003	0.36	-0.006	-0.54

**Panel E: Distribution of mutual fund ownership**

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Ownership threshold	Smallest number of largest mutual funds that reach a percentile threshold:		
	Average (Median)		
	Target firms	Non-target firms	PSM firms
5%	4.4 (2)	9.2 (3)	4.8 (2)
10%	8.7 (4)	14.8 (5)	12.9 (6)
15%	17.1 (8)	23.7 (9)	22.3 (11)
20%	37.2 (14)	39.6 (15)	42.6 (19)
25%	65.3 (24)	62.2 (23)	66.3 (27)
30%	99.8 (38)	85.2 (33)	83.9 (38)

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#### Table 4: Mutual Fund Voting in Proxy Contests

This table provides information on proxy voting by selected subsamples of mutual fund families. Panel A reports proxy voting by the top ten mutual fund families by assets under management (“AUM”). To calculate *Support for dissident slate*, we first average support, which equals 1 if a fund supports the dissident slate, and 0 otherwise, across funds within a family for a given proxy contest. We then average across proxy contests for that family. Panel B provides evidence on proxy voting by the most and least pro-dissident fund families among frequent institutional voters. Frequent institutional voters are defined as those funds that voted in at least 32 proxy contests between 2008 and 2015 (the top 100 frequent institutional voters). AUM and percent of passive funds for Summit Mutual Funds, and California Investment Trust are calculated for 2009 and 2010, respectively. Voting records are downloaded from N-PX filings. AUM data are collected from N-CSR, 10-K, 10-Q filings, and fund company websites.

##### Panel A: Top 10 mutual fund families’ voting behavior

Fund family name	AUM as of 2016 (\$trillions)	No. of proxy contests voted	Support for dissident slate	% passive funds as of 2016
	(1)	(2)	(3)	(4)
BlackRock	5.4	147	34.8%	77.6%
Vanguard Group	3.8	160	16.8%	66.2%
State Street	2.5	113	22.6%	84.6%
Fidelity Investments	2.3	153	38.1%	18.2%
BNY Mellon	1.7	83	36.1%	42.9%
American Funds (Capital Group)	1.4	38	39.5%	0%
Goldman Sachs Asset Management	1.4	48	62.5%	5.3%
Deutsche Asset & Wealth Management	1.2	101	44.6%	29.4%
Northern Trust Investments	0.9	119	27.3%	38.5%
Wellington Management	0.9	107	29.9%	0%

##### Panel B: Most and least pro-dissident fund families among frequent voters

Fund family name	AUM as of 2016 or latest year available (\$billions)	No. of proxy contests voted	Support for dissident slate	% passive funds as of 2016 or latest year available
	(1)	(2)	(3)	(4)
<i>Most pro-dissident families</i>				
Mutual of America	15.7	37	67.6%	30.0%
Gabelli Asset Management	39.7	70	62.9%	0%
Goldman Sachs Asset Management	1,373.0	48	62.5%	5.3%
SA Funds	48.1	99	57.6%	0%
Janus Capital Group	194.5	32	54.2%	7.7%
<i>Least pro-dissident families</i>				
Metlife	529.7	68	19.2%	100%
Summit Mutual Funds	2.0	32	18.8%	71.4%
Vanguard Group	3800.0	160	16.8%	66.2%
California Investment Trust	1.1	32	3.1%	100%
Rydex Investments (Guggenheim)	150.8	101	2.6%	66.7%

**Table 5. Integrated Analysis of Proxy Contests and Voting**

In this table, we report results from estimating a system of equations for investor voting and dissident targeting. The dependent variable in the voting equation, *Mutual fund supports dissident*, equals 1 if a mutual fund votes for a dissident's director slate, and 0 otherwise. The dependent variable in the targeting equation, *Proxy contest*, equals 1 if a firm is targeted by a dissident, and 0 otherwise. All independent variables are as defined in Table 3. Panel A reports results from estimating a full-information maximum likelihood model, in which  $\rho$  is the coefficient of correlation between the residuals in the two equations. Panel B reports results from estimating a Heckman two-step model, in which  $\mu$  is the coefficient on the inverse Mills ratio. Standard errors are clustered at the fund family level. In each column we report probit coefficients, their heteroscedasticity-robust *t*-statistics, and when applicable, the marginal probability change induced by a one-unit change in the value of a specific covariate from its sample average. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5% and 1% levels, respectively.

**Panel A: Full-information maximum likelihood model**

	Voting equation: Mutual fund supports dissident			Targeting equation: Proxy contest	
	Coefficient (1)	<i>t</i> -stat. (2)	Marg. Prob. (3)	Coefficient (4)	<i>t</i> -stat. (5)
Log (MV)	0.099***	3.40	3.6%	0.093**	2.12
<i>q</i>	-0.109*	-1.64	-4.0%	-0.492***	-3.68
ROA	-0.534**	-2.46	-19.4%	-0.026	-0.03
Prior 12-month stock return	-0.137	-1.56	-5.0%	-0.158	-1.36
Leverage	-0.096	-0.82	-3.5%	0.418	0.93
Dividend yield	1.470	1.39	53.4%	-3.093	-0.97
Institutional ownership	0.159	1.09	5.8%	2.138***	6.63
HHI	0.381***	2.89	13.8%	0.453	1.28
Hedge fund dissident	0.129**	2.23	4.7%		
# past events by dissident	-0.085***	-5.62	-3.1%		
Past campaign intensity	0.059***	2.97	2.2%		
Passive fund	-0.325***	-3.94	-11.8%		
% disagreement within family past year	0.080	0.29	2.9%		
Log(fund total assets)	-0.017	-0.54	-0.6%		
Investment as % of firm equity	0.587	0.12	21.3%		
Investment as % of fund total assets	0.157**	1.99	5.7%		
Positive basis-adjusted return	-0.193***	-3.71	-7.0%		
Passive fund				-1.398***	-4.26
% disagreement within family past year				-0.871	-0.65
Log(fund total assets)				0.211***	6.82
Investment as % of firm equity				0.164**	2.26
Investment as % of fund total assets				1.008***	8.21
Positive basis-adjusted return				-1.250***	-3.55
# targets	184				
Observations	36,802				
$\rho$	0.193	2.84			

**Panel B: Heckman two-step model**

	Voting equation: Mutual fund supports dissident		Targeting equation: Proxy contest	
	Coefficient (1)	<i>t</i> -stat. (2)	Coefficient (3)	<i>t</i> -stat. (4)
Log (MV)	0.033***	3.19	0.016	0.67
<i>q</i>	-0.026	-1.14	-0.220***	-2.89
ROA	-0.232***	-2.62	-0.357	-1.11
Prior 12-month stock return	-0.043	-1.33	-0.041	-1.31
Leverage	0.010	0.23	0.316	1.38
Dividend yield	0.894	1.17	-3.157*	-1.78
Institutional ownership	0.092*	1.78	0.680***	3.43
HHI	0.150***	3.03	-0.044	-0.22
Hedge fund dissident	0.058***	2.67		
# past events by dissident	-0.030***	-6.00		
Past campaign intensity	0.027***	3.63		
Passive fund	-0.114***	-4.02		
% disagreement within family past year	0.026	0.27		
Log(fund total assets)	-0.006	-0.56		
Investment as % of firm equity	0.103	0.05		
Investment as % of fund total assets	0.063**	2.18		
Positive basis-adjusted return	-0.068***	-3.60		
Passive fund			-0.821***	-4.78
% disagreement within family past year			-0.576	-0.81
Log(fund total assets)			0.091***	4.47
Investment as % of firm equity			0.070**	1.96
Investment as % of fund total assets			0.319***	4.70
Positive basis-adjusted return			-0.452***	-3.07
Fiscal year dummy	Yes		Yes	
# targets	184		184	
Observations	11,600		25,202	
Adj. R-squared	0.11			
Pseudo R-squared			0.17	
$\mu$ (coefficient on <i>InvMill</i> )	0.131	4.55		

**Table 6. Mutual Fund Trading in Target Firms Prior to a Proxy Contest**

In this table we provide evidence on the determinants of actively-managed mutual funds' trading in event firms prior to the proxy contest. *No-show* is an indicator equal to 1 if a fund holds the target stock in both quarter end  $Q-1$  and  $Q$ , where  $Q$  is the quarter in which the record date falls, and there is no disclosed vote by the fund. *Buy-into-voting* is an indicator equal to 1 if a voting fund discloses holdings in quarter  $Q$  but not in quarter  $Q-1$  or  $Q-2$ , and 0 otherwise. *Sell-out-of-voting* is an indicator equal to 1 if a non-voting fund discloses holdings in quarters  $Q-2$  and  $Q-1$  but not in quarter  $Q$ . *Proxy advisors' rec.* is an indicator equal to 1 if either ISS or Glass Lewis made a recommendation regarding the uncontested meeting. *Rec. for dissident* is set equal to ISS for dissident or Glass Lewis for dissident, if only one of the two advisory firms issues a recommendation. It equals  $[(ISS \text{ for dissident}) + (Glass \text{ Lewis for dissident})]/2$ , if both advisors issue a recommendation. If neither advisor issues a recommendation for an event, it equals 0. All regressions included yearly dummy variables whose coefficients are not tabulated. All other independent variables are as defined in Table 3. The  $t$ -statistics are based on standard errors that are clustered at the fund family level. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5% and 1% levels, respectively.

Dependent variable:	No-show		Buy-into-voting		Sell-out-of-voting	
	Coefficient (1)	$t$ -stat. (2)	Coefficient (3)	$t$ -stat. (4)	Coefficient (5)	$t$ -stat. (6)
MV	-0.138***	-5.80	0.468***	8.25	0.070***	2.90
$q$	-0.024	-0.60	-0.152**	-2.24	-0.070	-0.85
ROA	-0.100	-0.61	-0.978***	-5.16	0.209	0.47
Prior 12-month stock return	0.124	1.42	-0.344***	-2.80	0.157	1.32
Leverage	0.184**	2.31	0.962***	5.57	0.629***	3.13
Dividend yield	1.596*	1.72	-1.253	-1.05	-3.840	-1.50
Institutional ownership	0.170*	1.87	-1.214***	-4.98	0.869**	2.18
HHI	-0.023	-0.19	-4.122***	-8.51	-0.285	-1.44
Log (fund total assets)	0.057	1.35	0.023	1.25	0.044***	2.62
Investment as % of firm equity	-12.751*	-1.81	3.790	0.48	-22.911**	-2.05
Investment as % of fund total assets	-22.417***	-2.96	-1.144***	-7.66	-15.621***	-5.21
Proxy advisors' rec.	-0.427***	-4.13				
Proxy advisors' rec. $\times$ Rec. for dissident	0.015	0.18				
Fiscal year dummy	Yes		Yes		Yes	
Pseudo R-squared	0.076		0.18		0.05	
% (Dep. variable =1)	6.4%		5.5%		1.4%	
Observations	15,820		8,135		8,802	

**Table 7. Proxy Contests and Mutual Fund Pro-Dissident Stance and Persuadability**

In this table, we report how proxies for mutual funds' pro-dissident stance and persuadability predict the likelihood of proxy contests as well as the potential outcomes of these contests. Panel A reports results using a mutual fund stance measure value-weighting all mutual fund shareholders, while Panel B provides results using these measures constructed using the smallest number of the largest mutual fund investors which collectively own at least 20% of a firm in a given year. In both panels, specifications (1) and (3) provide results from fitting a probit model for the occurrence of proxy contest, while specifications (2) and (4) report results from fitting an unordered multinomial logit model for three outcomes of the proxy contests: voted, settled, or withdrawn, relative to the base outcome of no event. *Pro-dissident stance (fixed effects)* is based on fund fixed effects from the voting equation (see equation (6) in the text). *Pro-dissident stance (pairwise-rank)* builds on the fund pairwise ranks based on voting behavior (see equation (9) in the text). *Past voting variation* is the standard deviation of funds' own past votes. *Conformity to proxy advisors* is the fund-specific loading coefficients of voting on proxy advisors' recommendations. All four stance measures are orthogonalized with respect to fund size, fund family size, and passive status, and are time-adapted based on historical information up to just prior to the contest. All regressions included yearly dummy variables whose coefficients are not tabulated. All other independent variables are as defined in Table 3. The *t*-statistics are reported in the parenthesis based on standard errors that are clustered at the firm level. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5% and 1% levels, respectively.

**Panel A: Proxies based on all fund investors**

Dependent variable: Proxy contest	Multinomial logit				Multinomial logit			
	Probit All contests (1)	Voted	Settled (2)	Withdrawn	Probit All contests (3)	Voted	Settled (4)	Withdrawn
Pro-dissident stance (fixed effects)	0.4795** (2.27)	0.4535 (0.55)	1.7792*** (3.15)	-0.5089 (-0.23)				
Pro-dissident stance (pair-wise ranks)					1.1655*** (6.91)	2.6272*** (3.67)	3.8462*** (7.66)	-1.0743 (-0.75)
Past voting variation	1.2325*** (5.35)	5.0505*** (3.64)	2.2225*** (3.27)	2.7315* (1.76)	1.1821*** (5.22)	4.9580*** (3.72)	2.1837*** (3.22)	2.7428* (1.96)
Conformity to proxy advisors	0.1827*** (2.79)	1.0769*** (3.51)	0.3921 (1.56)	0.0487 (0.13)	0.1572** (2.51)	0.9594*** (3.24)	0.3342 (1.44)	0.0376 (0.10)
Log (MV)	-0.0347** (-2.22)	0.0485 (0.50)	-0.0592 (-1.18)	0.0487 (0.49)	-0.0292* (-1.85)	0.0579 (0.61)	-0.0373 (-0.76)	0.0470 (0.47)
<i>q</i>	-0.1170*** (-3.32)	-0.6819*** (-2.72)	-0.2121** (-1.99)	-0.7232*** (-2.67)	-0.1162*** (-3.32)	-0.6899*** (-2.74)	-0.2124** (-2.01)	-0.7256*** (-2.69)
ROA	-0.1558 (-0.88)	-0.9531 (-0.96)	-0.2973 (-0.54)	1.4362 (0.89)	-0.1997 (-1.12)	-1.1922 (-1.20)	-0.4418 (-0.77)	1.4606 (0.91)
Prior 12-month stock return	-0.0856** (-2.40)	-0.1851 (-1.40)	-0.2353* (-1.70)	-0.5040* (-1.71)	-0.0859** (-2.35)	-0.1862 (-1.43)	-0.2294 (-1.62)	-0.5082* (-1.70)

Leverage	-0.0929 (-0.63)	0.8009 (1.09)	-0.5248 (-1.07)	-1.5052 (-1.17)	-0.0802 (-0.54)	0.8326 (1.13)	-0.5042 (-1.03)	-1.5116 (-1.18)
Dividend yield	-1.9721** (-2.15)	-12.2488** (-2.12)	-2.1958 (-0.77)	-26.2006** (-1.98)	-2.0675** (-2.20)	-11.8900** (-2.06)	-2.5070 (-0.85)	-26.2218** (-1.99)
Institutional ownership	0.4400*** (4.58)	2.5552*** (3.96)	1.0582*** (3.37)	0.2876 (0.45)	0.4459*** (4.65)	2.6211*** (3.98)	1.1316*** (3.59)	0.3396 (0.52)
HHI	0.0018 (0.01)	-0.5721 (-0.80)	0.1650 (0.39)	-0.0549 (-0.06)	0.0135 (0.11)	-0.5329 (-0.75)	0.1985 (0.47)	-0.0448 (-0.05)
Passive fund	-0.4436*** (-4.37)	-2.2691*** (-5.43)	-0.9510*** (-2.95)	0.9570* (1.96)	-0.1547 (-1.37)	-1.5496*** (-3.37)	0.0626 (0.17)	0.7575 (1.41)
% disagreement within family past year	-0.0049 (-0.01)	-2.7069 (-1.14)	1.3084 (1.09)	-3.8233 (-1.18)	-0.0670 (-0.17)	-2.9320 (-1.29)	1.1935 (1.05)	-3.8545 (-1.21)
Log (fund total assets)	0.0232*** (3.06)	0.3094*** (4.84)	0.0020 (0.10)	-0.0374 (-1.03)	0.0196** (2.52)	0.3054*** (4.82)	-0.0118 (-0.57)	-0.0309 (-0.83)
Investment as % of firm equity	0.0818** (2.53)	0.1688* (1.77)	0.2252** (2.11)	0.0631 (0.28)	0.0768** (2.46)	0.1504* (1.66)	0.2264** (2.36)	0.0629 (0.27)
Investment as % of fund total assets	0.1104 (1.52)	0.7568*** (5.06)	-0.7951* (-1.80)	-1.5625 (-0.99)	0.1316* (1.80)	0.8026*** (5.21)	-0.6791* (-1.66)	-1.6211 (-1.00)
Holding horizon	-0.0002 (-0.02)	0.0011 (0.04)	0.0225 (0.98)	0.0180 (0.42)	0.0007 (0.10)	-0.0004 (-0.01)	0.0248 (1.11)	0.0126 (0.30)
Positive basis-adjusted return	-0.4398*** (-5.39)	-0.7056** (-2.07)	-0.9427*** (-3.49)	0.0112 (0.03)	-0.5023*** (-5.96)	-0.8962*** (-2.72)	-1.2286*** (-4.46)	0.0459 (0.11)
Observations	23,191	24,052	24,052	24,052	23,299	24,210	24,210	24,210
Pseudo R-squared	0.03	0.06	0.06	0.06	0.05	0.07	0.07	0.07

**Panel B: Proxies based on the top 20% fund investors**

Dependent variable: Proxy contest	Probit		Multinomial logit		Probit		Multinomial logit	
	All contests (1)	Voted	Settled (2)	Withdrawn	All contests (3)	Voted	Settled (4)	Withdrawn
Pro-dissident stance (fixed effects)	0.5180*** (2.74)	1.1986 (1.34)	1.6037*** (3.35)	-0.0308 (-0.02)				
Pro-dissident stance (pair-wise ranks)					0.9812*** (6.12)	1.1908* (1.80)	3.2032*** (6.87)	0.3496 (0.21)
Past voting variation	0.8687*** (3.87)	2.6049** (2.23)	2.2099*** (3.25)	1.2134 (0.84)	0.7998*** (3.67)	2.4431** (2.09)	2.0048*** (3.10)	1.1503 (0.80)
Conformity to proxy advisors	0.1573** (2.40)	1.1819*** (4.62)	0.1763 (0.82)	0.0881 (0.25)	0.1513** (2.51)	1.1650*** (4.72)	0.1732 (0.93)	0.0700 (0.21)
Log (MV)	-0.0332** (-2.07)	0.0558 (0.64)	-0.0727 (-1.34)	0.0254 (0.23)	-0.0296* (-1.84)	0.0613 (0.71)	-0.0646 (-1.22)	0.0265 (0.24)
<i>q</i>	-0.1172*** (-3.21)	-0.7834*** (-2.90)	-0.2278* (-1.95)	-0.7758** (-2.35)	-0.1192*** (-3.31)	-0.7723*** (-2.97)	-0.2277** (-1.99)	-0.7759** (-2.37)
ROA	-0.2681 (-1.51)	-1.1645 (-1.04)	-0.5148 (-0.87)	0.7336 (0.44)	-0.3048* (-1.70)	-1.2666 (-1.13)	-0.6121 (-1.01)	0.7299 (0.44)
Prior 12-month stock return	-0.0792** (-2.24)	-0.1728 (-1.57)	-0.1542 (-1.60)	-0.6749** (-2.30)	-0.0792** (-2.21)	-0.1709 (-1.57)	-0.1459 (-1.52)	-0.6765** (-2.31)
Leverage	-0.0476 (-0.32)	0.9022 (1.23)	-0.4178 (-0.83)	-1.5223 (-1.12)	-0.0414 (-0.27)	0.9070 (1.24)	-0.3949 (-0.78)	-1.5104 (-1.11)
Dividend yield	-1.9657** (-2.09)	-11.2257** (-1.96)	-1.9218 (-0.64)	-24.1390* (-1.69)	-2.0225** (-2.12)	-11.1132* (-1.93)	-2.1889 (-0.71)	-24.1982* (-1.70)
Institutional ownership	0.4064*** (4.15)	2.3590*** (3.55)	0.9959*** (2.93)	0.5066 (0.83)	0.4014*** (4.13)	2.3684*** (3.55)	1.0024*** (3.00)	0.5030 (0.82)
HHI	-0.0002 (-0.00)	-0.4813 (-0.70)	0.0834 (0.21)	-0.0721 (-0.08)	-0.0006 (-0.01)	-0.4960 (-0.71)	0.0778 (0.19)	-0.0678 (-0.07)
Passive fund	-0.4972*** (-4.57)	-2.3967*** (-4.61)	-1.2419*** (-3.56)	0.6925 (1.23)	-0.2909** (-2.48)	-2.2423*** (-4.22)	-0.4704 (-1.26)	0.7905 (1.24)
% disagreement within family past year	0.1950 (0.45)	-1.9458 (-0.88)	2.1815* (1.85)	-4.3250 (-1.05)	0.0942 (0.22)	-1.8543 (-0.85)	1.8375* (1.65)	-4.3483 (-1.05)
Log (fund total assets)	0.0239*** (2.97)	0.3306*** (4.76)	0.0279 (1.17)	-0.0381 (-0.81)	0.0211*** (2.60)	0.3277*** (4.74)	0.0165 (0.68)	-0.0394 (-0.87)

Investment as % of firm equity	0.0757** (2.18)	0.1756* (1.78)	0.1611 (1.46)	0.0490 (0.21)	0.0690** (1.99)	0.1722* (1.75)	0.1467 (1.37)	0.0430 (0.19)
Investment as % of fund total assets	0.1181 (1.48)	0.9610*** (5.08)	-0.8950* (-1.87)	-1.1250 (-0.79)	0.13689* (1.72)	0.9652*** (5.16)	-0.7872* (-1.75)	-1.1105 (-0.78)
Holding horizon	0.0028 (0.37)	-0.0128 (-0.42)	0.0045 (0.18)	0.0714 (1.53)	0.0047 (0.63)	-0.0110 (-0.37)	0.0113 (0.46)	0.0727 (1.57)
Positive basis-adjusted return	-0.4682*** (-5.44)	-1.2613*** (-3.31)	-1.0869*** (-3.65)	-0.8002* (-1.66)	-0.4928*** (-5.61)	-1.2404*** (-3.26)	-1.1805*** (-3.93)	-0.8064 (-1.62)
Observations	23,665	23,665	23,665	23,665	23,715	23,715	23,715	23,715
Pseudo R-squared	0.06	0.10	0.10	0.10	0.06	0.11	0.11	0.11



**Appendix for**

**Picking Friends Before Picking (Proxy) Fights:  
How Mutual Fund Voting Shapes Proxy Contests**

Alon Brav    Wei Jiang    Tao Li

June 2018

## Appendix A1. Sample Voting Records

This appendix provides samples from four N-PX files for funds submitting their voting records in the DuPont May/13/2015 proxy fight.

Sample N-PX #1: Voting by the *Vanguard Institutional Total Stock Market Index Fund* submitted in the annual report of proxy voting record by the Vanguard Institutional Index Funds. Available at: <https://www.sec.gov/Archives/edgar/data/862084/000093247115007129/institutionalindexfunds0870.htm>

**ISSUER:** E. I. du Pont de Nemours and Company  
**TICKER:** DD  
**MEETING DATE:** 5/13/2015

**CUSIP:** 263534109

<b>PROPOSAL:</b>	<b>PROPOSED BY</b>	<b>VOTED?</b>	<b>VOTE CAST</b>	<b>FOR /AGAINST MGMT</b>
PROPOSAL #1.1: ELECT DIRECTOR LAMBERTO ANDREOTTI	ISSUER	YES	FOR	FOR
PROPOSAL #1.2: ELECT DIRECTOR EDWARD D. BREEN	ISSUER	YES	FOR	FOR
PROPOSAL #1.3: ELECT DIRECTOR ROBERT A. BROWN	ISSUER	YES	FOR	FOR
PROPOSAL #1.4: ELECT DIRECTOR ALEXANDER M. CUTLER	ISSUER	YES	FOR	FOR
PROPOSAL #1.5: ELECT DIRECTOR ELEUTHERE I. DU PONT	ISSUER	YES	FOR	FOR
PROPOSAL #1.6: ELECT DIRECTOR JAMES L. GALLOGLY	ISSUER	YES	FOR	FOR
PROPOSAL #1.7: ELECT DIRECTOR MARILLYN A. HEWSON	ISSUER	YES	FOR	FOR
PROPOSAL #1.8: ELECT DIRECTOR LOIS D. JULIBER	ISSUER	YES	FOR	FOR
PROPOSAL #1.9: ELECT DIRECTOR ELLEN J. KULLMAN	ISSUER	YES	FOR	FOR
PROPOSAL #1.10: ELECT DIRECTOR ULF M. SCHNEIDER	ISSUER	YES	FOR	FOR
PROPOSAL #1.11: ELECT DIRECTOR LEE M. THOMAS	ISSUER	YES	FOR	FOR
PROPOSAL #1.12: ELECT DIRECTOR PATRICK J. WARD	ISSUER	YES	FOR	FOR
PROPOSAL #2: RATIFY AUDITORS	ISSUER	YES	FOR	FOR
PROPOSAL #3: ADVISORY VOTE TO RATIFY NAMED EXECUTIVE OFFICERS' COMPENSATION	ISSUER	YES	FOR	FOR
PROPOSAL #4: REPORT ON LOBBYING PAYMENTS AND POLICY	SHAREHOLDER	YES	AGAINST	FOR
PROPOSAL #5: REPORT ON HERBICIDE USE ON GMO CROPS	SHAREHOLDER	YES	AGAINST	FOR
PROPOSAL #6: ESTABLISH COMMITTEE ON PLANT CLOSURES	SHAREHOLDER	YES	AGAINST	FOR
PROPOSAL #7: REPEAL AMENDMENTS TO THE COMPANY'S BYLAWS ADOPTED WITHOUT STOCKHOLDER APPROVAL AFTER AUGUST 12, 2013	SHAREHOLDER	YES	AGAINST	FOR
PROPOSAL #1.1: ELECT DIRECTOR NELSON PELTZ	ISSUER	NO	N/A	N/A
PROPOSAL #1.2: ELECT DIRECTOR JOHN H. MYERS	ISSUER	NO	N/A	N/A
PROPOSAL #1.3: ELECT DIRECTOR ARTHUR B. WINKLEBLACK	ISSUER	NO	N/A	N/A
PROPOSAL #1.4: ELECT DIRECTOR ROBERT J. ZATTA	ISSUER	NO	N/A	N/A
PROPOSAL #1.5: MANAGEMENT NOMINEE – LAMBERTO ANDREOTTI	ISSUER	NO	N/A	N/A
PROPOSAL #1.6: MANAGEMENT NOMINEE - EDWARD D. BREEN	ISSUER	NO	N/A	N/A
PROPOSAL #1.7: MANAGEMENT NOMINEE - ELEUTHERE I. DU PONT	ISSUER	NO	N/A	N/A
PROPOSAL #1.8: MANAGEMENT NOMINEE - JAMES L. GALLOGLY	ISSUER	NO	N/A	N/A
PROPOSAL #1.9: MANAGEMENT NOMINEE - MARILLYN A. HEWSON	ISSUER	NO	N/A	N/A
PROPOSAL #1.10: MANAGEMENT NOMINEE - ELLEN J. KULLMAN	ISSUER	NO	N/A	N/A
PROPOSAL #1.11: MANAGEMENT NOMINEE - ULF M. SCHNEIDER	ISSUER	NO	N/A	N/A
PROPOSAL #1.12: MANAGEMENT NOMINEE - PATRICK J. WARD	ISSUER	NO	N/A	N/A
PROPOSAL #2: RATIFY AUDITORS	ISSUER	NO	N/A	N/A
PROPOSAL #3: ADVISORY VOTE TO RATIFY NAMED EXECUTIVE OFFICERS' COMPENSATION	ISSUER	NO	N/A	N/A
PROPOSAL #4: REPORT ON LOBBYING PAYMENTS AND POLICY	SHAREHOLDER	NO	N/A	N/A
PROPOSAL #5: REPORT ON HERBICIDE USE ON GMO CROPS	SHAREHOLDER	NO	N/A	N/A
PROPOSAL #6: ESTABLISH COMMITTEE ON PLANT CLOSURES	SHAREHOLDER	NO	N/A	N/A
PROPOSAL #7: REPEAL AMENDMENTS TO THE COMPANY'S BYLAWS ADOPTED WITHOUT STOCKHOLDER APPROVAL AFTER AUGUST 12, 2013	SHAREHOLDER	NO	N/A	N/A

Sample N-PX #2: Voting by the *Vanguard S&P 500 Growth Index Fund* submitted in the annual report of proxy voting record by the Vanguard Admiral Funds. Available at:  
<https://www.sec.gov/Archives/edgar/data/891190/000093247115006938/admiralfunds1841.htm>

**ISSUER:** E. I. du Pont de Nemours and Company  
**TICKER:** DD  
**MEETING DATE:** 5/13/2015

**CUSIP:** 263534109

<b>PROPOSAL:</b>	<b>PROPOSED BY</b>	<b>VOTED?</b>	<b>VOTE CAST</b>	<b>FOR /AGAINST MGMT</b>
PROPOSAL #1.1: ELECT DIRECTOR LAMBERTO ANDREOTTI	ISSUER	YES	FOR	FOR
PROPOSAL #1.2: ELECT DIRECTOR EDWARD D. BREEN	ISSUER	YES	FOR	FOR
PROPOSAL #1.3: ELECT DIRECTOR ROBERT A. BROWN	ISSUER	YES	FOR	FOR
PROPOSAL #1.4: ELECT DIRECTOR ALEXANDER M. CUTLER	ISSUER	YES	FOR	FOR
PROPOSAL #1.5: ELECT DIRECTOR ELEUTHERE I. DU PONT	ISSUER	YES	FOR	FOR
PROPOSAL #1.6: ELECT DIRECTOR JAMES L. GALLOGLY	ISSUER	YES	FOR	FOR
PROPOSAL #1.7: ELECT DIRECTOR MARILLYN A. HEWSON	ISSUER	YES	FOR	FOR
PROPOSAL #1.8: ELECT DIRECTOR LOIS D. JULIBER	ISSUER	YES	FOR	FOR
PROPOSAL #1.9: ELECT DIRECTOR ELLEN J. KULLMAN	ISSUER	YES	FOR	FOR
PROPOSAL #1.10: ELECT DIRECTOR ULF M. SCHNEIDER	ISSUER	YES	FOR	FOR
PROPOSAL #1.11: ELECT DIRECTOR LEE M. THOMAS	ISSUER	YES	FOR	FOR
PROPOSAL #1.12: ELECT DIRECTOR PATRICK J. WARD	ISSUER	YES	FOR	FOR
PROPOSAL #2: RATIFY AUDITORS	ISSUER	YES	FOR	FOR
PROPOSAL #3: ADVISORY VOTE TO RATIFY NAMED EXECUTIVE OFFICERS' COMPENSATION	ISSUER	YES	FOR	FOR
PROPOSAL #4: REPORT ON LOBBYING PAYMENTS AND POLICY	SHAREHOLDER	YES	AGAINST	FOR
PROPOSAL #5: REPORT ON HERBICIDE USE ON GMO CROPS	SHAREHOLDER	YES	AGAINST	FOR
PROPOSAL #6: ESTABLISH COMMITTEE ON PLANT CLOSURES	SHAREHOLDER	YES	AGAINST	FOR
PROPOSAL #7: REPEAL AMENDMENTS TO THE COMPANY'S BYLAWS ADOPTED WITHOUT STOCKHOLDER APPROVAL AFTER AUGUST 12, 2013	SHAREHOLDER	YES	AGAINST	FOR
PROPOSAL #1.1: ELECT DIRECTOR NELSON PELTZ	ISSUER	NO	N/A	N/A
PROPOSAL #1.2: ELECT DIRECTOR JOHN H. MYERS	ISSUER	NO	N/A	N/A
PROPOSAL #1.3: ELECT DIRECTOR ARTHUR B. WINKLEBLACK	ISSUER	NO	N/A	N/A
PROPOSAL #1.4: ELECT DIRECTOR ROBERT J. ZATTA	ISSUER	NO	N/A	N/A
PROPOSAL #1.5: MANAGEMENT NOMINEE – LAMBERTO ANDREOTTI	ISSUER	NO	N/A	N/A
PROPOSAL #1.6: MANAGEMENT NOMINEE - EDWARD D. BREEN	ISSUER	NO	N/A	N/A
PROPOSAL #1.7: MANAGEMENT NOMINEE - ELEUTHERE I. DU PONT	ISSUER	NO	N/A	N/A
PROPOSAL #1.8: MANAGEMENT NOMINEE - JAMES L. GALLOGLY	ISSUER	NO	N/A	N/A
PROPOSAL #1.9: MANAGEMENT NOMINEE - MARILLYN A. HEWSON	ISSUER	NO	N/A	N/A
PROPOSAL #1.10: MANAGEMENT NOMINEE - ELLEN J. KULLMAN	ISSUER	NO	N/A	N/A
PROPOSAL #1.11: MANAGEMENT NOMINEE - ULF M. SCHNEIDER	ISSUER	NO	N/A	N/A
PROPOSAL #1.12: MANAGEMENT NOMINEE - PATRICK J. WARD	ISSUER	NO	N/A	N/A
PROPOSAL #2: RATIFY AUDITORS	ISSUER	NO	N/A	N/A
PROPOSAL #3: ADVISORY VOTE TO RATIFY NAMED EXECUTIVE OFFICERS' COMPENSATION	ISSUER	NO	N/A	N/A
PROPOSAL #4: REPORT ON LOBBYING PAYMENTS AND POLICY	SHAREHOLDER	NO	N/A	N/A
PROPOSAL #5: REPORT ON HERBICIDE USE ON GMO CROPS	SHAREHOLDER	NO	N/A	N/A
PROPOSAL #6: ESTABLISH COMMITTEE ON PLANT CLOSURES	SHAREHOLDER	NO	N/A	N/A
PROPOSAL #7: REPEAL AMENDMENTS TO THE COMPANY'S BYLAWS ADOPTED WITHOUT STOCKHOLDER APPROVAL AFTER AUGUST 12, 2013	SHAREHOLDER	NO	N/A	N/A

Sample N-PX #3: Voting by *Northern Lights Fund Trust III - Persimmon Long/Short Fund* submitted in the annual report of proxy voting record by the Northern Lights Fund Trust III. Available at: <https://www.sec.gov/Archives/edgar/data/1537140/000158064215003790/nlftiinp1.htm>

**Registrant: NORTHERN LIGHTS FUND TRUST III - Persimmon Long/Short Fund**  
**Investment Company Act file number: 811-22655**  
**Reporting Period: July 1, 2014 through June 30, 2015**

Item 1, Exhibit 7

E. I. DU PONT DE NEMOURS AND COMPANY				
Security	263534109		Meeting Type	Contested-Annual
Ticker Symbol	DD		Meeting Date	13-May-2015
ISIN	US2635341090		Agenda	934154092 - Management
Record Date	17-Mar-2015		Holding Recon Date	17-Mar-2015
City / Country	/ United States		Vote Deadline Date	12-May-2015
SEDOL(s)			Quick Code	
Item	Proposal	Proposed by	Vote	For/Against Management
1.	DIRECTOR	Management		
	1 LAMBERTO ANDREOTTI			
	2 EDWARD D. BREEN			
	3 ROBERT A. BROWN			
	4 ALEXANDER M. CUTLER			
	5 ELEUTHERE I. DU PONT			
	6 JAMES L. GALLOGLY			
	7 MARILLYN A. HEWSON			
	8 LOIS D. JULIBER			
	9 ELLEN J. KULLMAN			
	10 ULF M. SCHNEIDER			
	11 LEE M. THOMAS			
	12 PATRICK J. WARD			
2.	ON RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	Management		
3.	TO APPROVE, BY ADVISORY VOTE, EXECUTIVE COMPENSATION	Management		
4.	ON LOBBYING	Shareholder		
5.	ON GROWER COMPLIANCE	Shareholder		
6.	ON PLANT CLOSURES	Shareholder		
7.	ON REPEALING CERTAIN AMENDMENTS TO THE BYLAWS ADOPTED BY THE BOARD WITHOUT STOCKHOLDER APPROVAL	Shareholder		

E. I. DU PONT DE NEMOURS AND COMPANY				
Security	263534109		Meeting Type	Contested-Annual
Ticker Symbol	DD		Meeting Date	13-May-2015
ISIN	US2635341090		Agenda	934155955 - Opposition
Record Date	17-Mar-2015		Holding Recon Date	17-Mar-2015
City / Country	/ United States		Vote Deadline Date	12-May-2015
SEDOL(s)			Quick Code	
Item	Proposal	Proposed by	Vote	For/Against Management
1	DIRECTOR	Management		
	1 NELSON PELTZ		For	For
	2 JOHN H. MYERS		Withheld	Against
	3 ARTHUR B. WINKLEBLACK		Withheld	Against
	4 ROBERT J. ZATTA		Withheld	Against
	5 MGT NOM: L. ANDREOTTI		For	For
	6 MGT NOM: E. D. BREEN		For	For
	7 MGT NOM: E. I. DU PONT		For	For
	8 MGT NOM: J. L. GALLOGLY		For	For
	9 MGT NOM: M. A. HEWSON		For	For
	10 MGT NOM: E. J. KULLMAN		For	For
	11 MGT NOM: U. M. SCHNEIDER		For	For
	12 MGT NOM: P. J. WARD		For	For
2	ON RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM	Management	For	
3	TO APPROVE, BY ADVISORY VOTE, EXECUTIVE COMPENSATION	Management	For	
4	ON LOBBYING	Management	Against	
5	ON GROWER COMPLIANCE	Management	Against	
6	ON PLANT CLOSURE	Management	Against	
7	TO REPEAL EACH PROVISION OR AMENDMENT OF THE BYLAWS OF THE COMPANY ADOPTED BY THE BOARD OF DIRECTORS OF THE COMPANY (AND NOT BY THE COMPANY'S STOCKHOLDERS) SUBSEQUENT TO AUGUST 12, 2013 AND PRIOR TO THE APPROVAL OF THIS RESOLUTION.	Management	For	For

Sample N-PX #4: Voting by *Northern Lights Fund Trust III – The Covered Bridge Fund* submitted in the annual report of proxy voting record by the Northern Lights Fund Trust III. Available at: <https://www.sec.gov/Archives/edgar/data/1537140/000158064215003790/nlftiinp1.htm>

Registrant: <b>NORTHERN LIGHTS FUND TRUST III - The Covered Bridge Fund</b>										Item 1, Exhibit 12
Investment Company Act file number: 811-22655										
Reporting Period: July 1, 2014 through June 30, 2015										
FORM N-PX - PROXY VOTING RECORD REQUIREMENTS										
(a) Issuer's Name	(b) Exchange Ticker Symbol	(c) "CUSIP" #	(d) Shareholder Meeting Date	(e) Matter Identification	(f) Proposal Type	(g) Voted	(h) Vote Cast	(i) For/Against Management		
21	E. I. Dupont de Nemours & Co	DD	263534109	Annual; 5/13/2015	1 Election of Directors	Management	Y	FOR	FOR	
					1.1 Lamberto Andreotti	Management	Y	FOR	FOR	
					1.2 Edward D. Breen	Management	Y	FOR	FOR	
					1.3 Robert A. Brown	Management	Y	FOR	FOR	
					1.4 Alexander M. Cutler	Management	Y	FOR	FOR	
					1.5 Eleuthere I. du Pont	Management	Y	FOR	FOR	
					1.6 James L. Gallogly	Management	Y	FOR	FOR	
					1.7 Marilyn A. Hewson	Management	Y	FOR	FOR	
					1.8 Lois D. Juliber	Management	Y	FOR	FOR	
					1.9 Ellen J. Kullman	Management	Y	FOR	FOR	
					1.10 Ulf M. Schneider	Management	Y	FOR	FOR	
					1.11 Lee M. Thomas	Management	Y	FOR	FOR	
					1.12 Patrick J. Ward	Management	Y	FOR	FOR	
					2 On ratification of independent registered public accounting firm	Management	Y	FOR	FOR	
					3 To approve, by advisory vote, executive compensation	Management	Y	FOR	FOR	
					4 On lobbying	Shareholder	Y	AGAINST	FOR	
					5 On grower compliance	Shareholder	Y	AGAINST	FOR	
					6 On plant closures	Shareholder	Y	AGAINST	FOR	
					7 On repealing certain amendments to the bylaws adopted by the board without stockholder approval	Shareholder	Y	AGAINST	FOR	

## Appendix A2. Determinants of Mutual Funds' Support for Dissidents

In this appendix, we adopt a probit model to study how firm, dissident, fund, and fund-event characteristics predict mutual funds' support for dissidents in proxy contests. The dependent variable, *Mutual fund supports dissident*, equals 1 if a mutual fund votes for a dissident's director slate, and 0 otherwise. All independent variables are as defined in Table 3. The results for the full sample are given in the table below, providing the coefficients and their associated marginal probabilities representing the marginal effect of each regressor on the likelihood of mutual funds' support for dissidents.

<b>Determinants of Mutual Funds' Support for Dissidents: Full sample</b>						
Dependent variable: Mutual fund supports dissident						
	Coefficient	<i>t</i> -stat.	Marg. Prob.	Coefficient	<i>t</i> -stat.	Marg. Prob.
	(1)	(2)	(3)	(4)	(5)	(6)
Log (MV)	0.126***	7.74	4.8%	0.111***	6.87	4.2%
<i>q</i>	-0.114***	-5.62	-4.4%	-0.097***	-4.89	-3.7%
ROA	-0.728***	-4.63	-27.8%	-0.608***	-3.68	-23.3%
Prior 12-month stock return	-0.116	-1.26	-4.4%	-0.020	-0.21	-0.8%
Leverage	-0.398***	-3.66	-15.2%	-0.326***	-3.02	-12.5%
Dividend yield	0.144	0.12	0.1%	0.523	0.49	0.2%
Institutional ownership	-0.186	-1.58	-7.1%	-0.162	-1.31	-6.2%
HHI	0.229	1.50	8.7%	0.211	1.38	8.1%
MHHID	0.170	0.90	6.5%	0.138	0.72	5.3%
Hedge fund dissident	0.320***	5.15	11.9%	0.367***	5.91	13.6%
# past events by dissident	-0.089***	-5.42	-3.4%	-0.096***	-6.23	-3.7%
Past campaign intensity	0.053***	2.71	2.0%	0.059***	3.04	2.3%
Announcement return	0.919***	6.59	35.1%	1.045***	7.23	40.0%
Passive fund				-0.331***	-3.94	-12.5%
% disagreement within family past year				0.098	0.31	3.7%
Log(fund total assets)				-0.011	-0.32	-0.4%
Investment as % of firm equity				-0.033	-0.85	-1.2%
Holding horizon				0.001	0.02	0.1%
Sub-portfolio CAR [-10, +10]				0.054	0.40	2.1%
Positive basis-adjusted return				-0.102**	-2.00	-3.9%
Fiscal year dummy	Yes			Yes		
# targets	188			184		
Observations	23,444			14,434		
Pseudo R-squared	0.08			0.08		
% (Dep. Variable =1)	39.9%			40.1%		

As shown in columns (1)-(3), mutual funds are more likely to support the dissident when Tobin's *q* is lower, implying that funds' attempt to reduce the undervaluation of the target firm by voting for the dissidents. A one-standard-deviation increase in *q* is associated with a decrease of 3.6% in the marginal probability. Relative to the unconditional probability of voting for dissidents of 39.9%, the incremental probability is economically significant. Similarly, these funds tend to vote for dissidents when target firms experience poor accounting and share price performance. These three estimates are statistically significant at the 1% level. The common ownership concentration, MHHID, and the product market concentration, HHI, do not predict funds' support for dissidents. Hence, at least in proxy contests, there is little evidence to support the idea that mutual funds voting is influenced by the degree of competition associated with common ownership. Other firm attributes, leverage, dividend yield or institutional ownership, are not correlated with funds' decision to support dissidents.

Next, consistent with the idea that mutual funds believe that hedge fund activism is an effective form of governance, we find that mutual funds are 11.9 percentage points more likely to vote for hedge fund dissidents than other types of dissidents, all else being equal. However, mutual funds do not support dissident nominees when the dissident has a long track record of activist campaigns, as proxied by the number of past proxy contests; but are more supportive when the activists tend to have high-stake engagements in the past, as measured by campaign intensity. Last, mutual funds are more likely to vote for dissidents when the activist announcement return is high, which proxies for the market's expectation for activist's success. All of the coefficient estimates are significant at the 1% level.

In addition to the firm and dissident attributes, we further control in columns (4)-(6) for fund and fund-event characteristics. There is, however, little change in the coefficients on the firm and dissident characteristics. Importantly, passively-managed funds are substantially less likely than active funds to support dissidents, and the difference of 12.5 percentage points is significant at the 1% level. Mutual funds are significantly more likely to support the dissident when abnormal returns of same-industry firms in the fund's portfolio are higher, indicating that funds make voting decisions based on the overall performance of their portfolios. The point estimate is significant at the 1% level. Last, a fund earning a positive basis-adjusted return on the target stock is 3.9 percentage points less likely to vote for the dissident than a fund earning a negative return (significant at the 5% level). This suggests that "unhappy" investors, who have lost money in the investment, are more likely to favor changes proposed by the dissident.

The next table provides results for passively and actively managed funds, respectively.

<b>Determinants of Mutual Funds' Support for Dissidents: Passively vs. actively managed funds</b>						
	Dependent variable: Mutual fund supports dissident					
	Passively managed funds			Actively managed funds		
	Coefficient	<i>t</i> -stat.	Marg. Prob.	Coefficient	<i>t</i> -stat.	Marg. Prob.
	(1)	(2)	(3)	(4)	(5)	(6)
Log (MV)	0.164***	6.72	5.7%	0.077***	4.25	3.1%
<i>q</i>	-0.062***	-2.75	-2.2%	-0.121***	-4.13	-4.8%
ROA	-0.456**	-2.27	-15.9%	-0.725***	-3.68	-28.7%
Prior 12-month stock return	-0.029	-0.24	-1.0%	-0.003	-0.03	-0.1%
Leverage	-0.174	-1.15	-6.1%	-0.415***	-3.15	-16.4%
Dividend yield	1.330	0.61	0.4%	0.189	0.20	0.1%
Institutional ownership	-0.236	-1.10	-8.2%	-0.049	-0.41	-1.9%
HHI	0.186	0.67	6.5%	0.296*	1.87	11.7%
MHHID	-0.016	-0.07	-0.5%	0.298	1.11	11.8%
Hedge fund dissident	0.439***	6.44	14.2%	0.327***	3.67	12.7%
# past events by dissident	-0.114***	-8.84	-4.0%	-0.088***	-3.94	-3.5%
Past campaign intensity	0.080***	3.09	2.8%	0.051*	1.94	2.0%
Announcement return	1.106***	5.99	38.5%	0.993***	5.02	39.3%
% disagreement within family past year	0.458	1.04	15.9%	-0.087	-0.31	-3.4%
Log(fund total assets)	0.001	0.01	0.1%	0.006	0.20	0.2%
Investment as % of firm equity	-0.442**	-2.22	-15.4%	0.002	0.05	0.1%
Holding horizon	0.004	1.09	0.2%	-0.008	-1.63	-0.3%
Sub-portfolio CAR [-10, +10]	-0.139	-0.62	-4.8%	0.299*	1.73	11.8%
Positive basis-adjusted return	-0.073	-0.96	-2.6%	-0.131**	-1.97	-5.2%
Fiscal year dummy	Yes			Yes		
# targets	159			181		
Observations	6,004			8,430		
Pseudo R-squared	0.09			0.07		
% (Dep. Variable =1)	32.6%			45.4%		

Compared with the full-sample results shown earlier, passive funds are more likely to support dissidents in larger targets with a higher leverage ratios. More importantly, the amount of funds' investment in the target firm negatively predicts support for the dissident. A one-standard-deviation increase in *Investment as % of firm equity* is associated with a 9.9 percentage-point decrease in support for the dissident. The coefficient estimate is significant at the 5% level. Relative to the unconditional probability for dissidents of 32.6%, this incremental probability is economically significant. This indicates that passive funds with significant investment in target firms, often belonging to large families that also manage the targets' retirement assets, are less likely to challenge the management due to potential conflicts of interest as documented in Davis and Kim (2007) and Cvijanovic, Dasgupta, and Zachariadis (2016). Results for the active-fund sample yields qualitatively similar results as those in the full sample.

The next table provides results for the Top 5 fund families – BlackRock, Vanguard, State Street, Fidelity, and BNY Mellon – and non-top 5 families, respectively.

<b>Determinants of Mutual Funds' Support for Dissidents: Top 5 fund vs. non-top 5 families</b>						
Dependent variable: Mutual fund supports dissident						
	Top 5 families			Non-top 5 families		
	Coefficient	<i>t</i> -stat.	Marg. Prob.	Coefficient	<i>t</i> -stat.	Marg. Prob.
	(1)	(2)	(3)	(4)	(5)	(6)
Log (MV)	0.053**	1.96	1.6%	0.124***	7.94	4.8%
<i>q</i>	-0.125**	-2.51	-3.9%	-0.091***	-4.01	-3.5%
ROA	-0.045	-0.16	-1.4%	-0.767***	-4.39	-30.0%
Prior 12-month stock return	-0.010	-0.04	-0.3%	-0.002	-0.02	-0.1%
Leverage	-0.363**	-2.12	-11.2%	-0.333***	-2.62	-13.0%
Dividend yield	-4.541	-1.03	-1.4%	1.178	1.34	0.5%
Institutional ownership	-0.004	-0.01	-0.1%	-0.147	-1.33	-5.7%
HHI	0.339	0.44	10.5%	0.218*	1.67	8.5%
MHHID	0.638	1.17	19.7%	0.020	0.11	0.8%
Hedge fund dissident	0.179*	1.72	5.3%	0.406***	6.25	15.4%
# past events by dissident	-0.136***	-3.67	-4.2%	-0.095***	-5.78	-3.7%
Past campaign intensity	0.059	0.97	1.8%	0.065***	3.45	2.5%
Announcement return	0.475	1.40	14.7%	1.153***	7.41	45.1%
Passive fund	-0.381***	-4.38	-12.4%	-0.187**	-2.26	-7.3%
% disagreement within family past year	2.759***	3.34	85.2%	-0.229	-0.91	-9.0%
Log(fund total assets)	-0.001	-0.01	-0.1%	0.039	1.37	1.5%
Investment as % of firm equity	-0.119**	-2.22	-3.7%	-0.008	-0.27	-0.3%
Holding horizon	0.012***	4.16	0.4%	-0.004	-1.07	-0.2%
Sub-portfolio CAR [-10, +10]	-0.236	-0.50	-7.3%	0.151	1.00	5.9%
Positive basis-adjusted return	0.049	0.38	1.5%	-0.194***	-3.39	-7.7%
Fiscal year dummy	Yes			Yes		
# targets	161			182		
Observations	3,000			11,434		
Pseudo R-squared	0.14			0.08		
% (Dep. Variable =1)	27.8%			43.3%		

In contrast to the full-sample results, whether the dissident is a hedge fund is only weakly positively associated with support from the top families. This suggests that these large families have more resources for in-depth proxy voting research, and simply being a hedge fund does not sway their votes. Past disagreement in voting within a family significantly predicts votes for the dissident; a one-standard-deviation increase in this variable is associated with an increase of 7.5 percentage points in the marginal



probability. Individual portfolio managers have more freedom to support the dissident when they disagree more often with each other. Similar to that for passive funds, the amount of top-family funds' investment in the target firm negatively predicts support for the dissident. On the other hand, a longer holding horizon positively predicts support for the dissident, potentially due to a stronger belief by these top families for a change at the firm. Results for the funds in non-top five families yield qualitatively similar results as those in the full sample.

The last table in this appendix presents results for the full sample based on a linear probability model with event fixed effects. The event fixed effects control for any missing firm or dissident attributes that are not included in the probit analysis. In each column we report probit coefficients, their heteroscedasticity-robust *t*-statistics, and when applicable, the marginal probability change induced by a one-unit change in the value of a specific covariate from its sample average. Standard errors are clustered at the fund family level. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5% and 1% levels, respectively.

<b>Determinants of Mutual Funds' Support for Dissidents: Linear probability model full sample</b>				
Linear probability model	Dependent variable: Mutual fund supports dissident			
	Coefficient (1)	<i>t</i> -stat. (2)	Coefficient (3)	<i>t</i> -stat. (4)
Passive fund	-0.103***	-3.91	-0.103***	-3.83
% disagreement within family past year	0.026	0.26	0.031	0.32
Log(fund NAV)	-0.009	-0.86	-0.009	-0.77
Investment as % of firm equity	-0.004	-0.51	-0.007	-0.88
Holding horizon			-0.001	-0.61
Sub-portfolio CAR [-10, +10]			0.086**	2.21
Positive basis-adjusted return			-0.037**	-2.11
Event FEs	Yes		Yes	
# targets	184		184	
Observations	14,434		14,434	
Adj. R-squared	0.35		0.35	
% (Dep. Variable =1)	40.1%		40.1%	

Columns (1) and (2) show results by controlling only for fund characteristics. Passive funds are 3.9 percentage points less likely to support the dissident. The estimate is significant at the 1% level. Given that the unconditional support rate of dissidents is 40.1%, this represents a decrease in approval of 9.7%. We find no evidence that the other fund characteristics predict mutual fund voting in proxy contests.

Columns (3) and (4) present results where we further control for fund-event attributes. A longer holding horizon has little effect on support for the dissident. Consistent with the probit results for the full sample, mutual funds are more likely to support the dissident when abnormal returns of same-industry firms in the fund's portfolio are higher, or when they earn a negative basis-adjusted return on the target stock (both of the estimates are significant at the 5% levels).

### Appendix A3. Analysis of Proxy Advisory Firms and Mutual Fund Voting

In this appendix, we examine the association between proxy advisors' recommendations and votes cast by individual mutual funds in proxy contests. As shown in Cai, Garner, and Walkling (2009), Alexander, Chen, Seppi, and Spatt (2010), and Malenko and Shen (2016), voting recommendations from leading proxy advisory firms, such as ISS and Glass Lewis, can sway potentially up to 30% of all shareholder votes in director elections.

To examine the association between pro-dissident recommendations from ISS and Glass Lewis and mutual fund voting, we regress the fraction of shares that each family voted for dissidents on a measure meant to capture the proxy advisors' recommendations. *Proxy advisors' recommendation* is set equal to *ISS for dissident* or *Glass Lewis for dissident*, if only one of the two advisory firms issues a recommendation. It equals  $[(ISS \text{ for dissident}) + (Glass \text{ Lewis for dissident})]/2$ , if both advisors issue a recommendation. If neither advisor issues a recommendation for an event, the event is dropped.

The table below provides the identity of funds with the most extreme regression coefficients, namely, the funds that are the most and least responsive to proxy-advisor recommendations among frequent institutional voters. Frequent voters are defined as those who voted in at least 32 proxy contests between 2008 and 2015 (the top 100 frequent institutional voters). AUM is reported as of 2016 in \$billions. The percentage of the fund family's passive funds is reported as of 2016 or latest year available. AUM and percent of passive funds for AARP Funds and Summit Mutual Funds are calculated for 2009 and 2010, respectively.

<b>Most and least pro-proxy-advisor fund families among frequent voters</b>				
Fund family name	AUM	No. of proxy contests voted	Regression coefficient	% passive funds
	(1)	(2)	(3)	(4)
<i>Families with highest coefficients</i>				
First American Funds	49.0	41	0.973	30.0%
Bridgeway Capital	7.7	58	0.918	0%
Janus Capital Group	194.5	32	0.899	7.7%
Old Westbury Funds	32.2	43	0.890	0%
AARP Funds	0.2	39	0.867	0%
<i>Families with lowest coefficients</i>				
Summit Mutual Funds	2.0	32	0.105	71.4%
Royce & Associates	17.6	50	0.102	0%
Metlife	529.7	68	0.060	100%
Rydex Investments (Guggenheim)	150.8	101	-0.024	66.7%
Gabelli Asset Management	39.7	70	-0.117	0%

First American is the most pro-advisor fund family, followed by Bridgeway, Janus, Old Westbury and AARP Funds. All of these families have an estimated coefficient that is between 0.86 and 0.97. This implies that if the proxy advisors' recommendation switches from 0 ("Against" the dissident) to 1 ("For" the dissident), these fund families' support rates for dissidents increase by 86 to 97 percentage points. On the other hand, Gabelli funds and Rydex Investments are the least responsive to proxy-advisor recommendations, as their regression coefficients are actually slightly negative. Interestingly, the top five funds that are most responsive to proxy-advisor firms manage mainly active funds. These are smaller families (their average AUM is \$56.7 billion as of 2016), who lack sufficient resources to conduct a rigorous proxy research and are more likely to rely on recommendations from ISS and/or Glass Lewis.

We do not observe a clear pattern for the families that are the least responsive to proxy-advisor recommendations. Gabelli and Royce essentially manage no passive funds, while the vast majority of funds managed by Summit Mutual, Metlife, and Rydex Investments are mostly passive. Gabelli may be an

exception as it is often times an activist fund itself and tends not to outsource corporate governance decisions to proxy advisory firms.

The following table provides summary statistics on votes for dissidents for the families that are the most and least receptive to proxy-advisor recommendations among frequent institutional voters. Voting records are from N-PX filings. AUM data are collected from N-CSR, 10-K, 10-Q filings, and fund websites. ISS and Glass Lewis recommendations are from company and dissident proxy filings, ISS Voting Analytics, Factiva, and SharkRepellent.

<b>Votes for dissidents by the most and least pro-proxy-advisor fund families</b>					
Fund family name	Average	Std. Dev.	25 <sup>th</sup> perc.	50 <sup>th</sup> perc.	75 <sup>th</sup> perc.
	(1)	(2)	(3)	(4)	(5)
<i>Families with highest coefficients</i>					
First American Funds	36.1%	48.2%	0	0	100%
Bridgeway Capital	36.2%	48.5%	0	0	100%
Janus Capital Group	54.2%	48.5%	0	83.3%	100%
Old Westbury Funds	32.6%	47.4%	0	0	100%
AARP Funds	48.7%	50.6%	0	0	100%
<i>Families with lowest coefficients</i>					
Summit Mutual Funds	18.8%	39.7%	0	0	0
Royce & Associates	38.7%	48.7%	0	0	100%
Metlife	19.2%	33.7%	0	0	33.3%
Rydex Investments (Guggenheim)	2.6%	14.7%	0	0	0
Gabelli Asset Management	62.4%	48.5%	0	100%	100%

As expected, on average, the most responsive families support dissidents more often than the least responsive funds. This is likely due to the fact that leading proxy advisors, especially ISS, often take a pro-dissident stance in making their voting recommendations.

#### Appendix A4. Joint Estimation of Targeting and Voting Decisions with Full-Information Maximum Likelihood (FIML) Method

Let  $\Phi(x)$  and  $\Phi_2(x_1, x_2, \rho)$  be the cumulative probability functions of univariate and bivariate normal distributions, respectively, following standard notation. Let,

$$L_0 = \Phi\left(-W_{i,t}\beta - \bar{Z}_{i,j,t}^{[i,t]}\delta\right) = 1 - \Phi\left(W_{i,t}\beta + \bar{Z}_{i,j,t}^{[i,t]}\delta\right)$$

$$L_{11} = \Phi_2\left(W_{i,t}\beta + \bar{Z}_{i,j,t}^{[i,t]}\delta, X_{i,t}\gamma + Z_{i,j,t}\lambda, \rho\right)$$

$$L_{10} = \Phi\left(W_{i,t}\beta + \bar{Z}_{i,j,t}^{[i,t]}\delta\right) - \Phi_2\left(W_{i,t}\beta + \bar{Z}_{i,j,t}^{[i,t]}\delta, X_{i,t}\gamma + Z_{i,j,t}\lambda, \rho\right)$$

Based on Equation (1) in the text, there are three types of observations in the sample with the following probabilities:

Outcome	Likelihood	Unit of observation	Number of observations
$Contest_{i,t} = 0$	$L_0$	$(i, t)$	$n_0$
$Contest_{i,t} = 1; Vote_{i,j,t} = 0$	$L_{10}$	$(i, j, t)$	$n_{10}$
$Contest_{i,t} = 1; Vote_{i,j,t} = 1$	$L_{11}$	$(i, j, t)$	$n_{11}$

Accordingly, the full-information maximum likelihood (FIML) is:

$$\ln L = \frac{1}{n_0} \sum_{\{i,t\} \in (Contest_{i,t}=0)} \ln L_0 + \frac{1}{n_{11}} \sum_{\{i,j,t\} \in (Contest_{i,t}=1 \cap Vote_{i,j,t}=1)} \ln L_{11}$$

$$+ \frac{1}{n_{10}} \sum_{\{i,j,t\} \in (Contest_{i,t}=1 \cap Vote_{i,j,t}=0)} \ln L_{10}$$

In addition to the estimation of the coefficients on the independent variables, the maximum likelihood also yields the estimated correlation of the residuals across the two equations,  $\hat{\rho}$ .