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Frenemies: How Do Financial Firms Vote on Their Own Kind?

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Abstract. The financial sector is unique in being largely self-governed: the majority of financial firms' shares are held by other financial institutions. This raises the possibility that the monitoring of financial firms is especially undermined by conflicts of interest as a result of personal and professional links between these firms and their shareholders. To investigate this possibility, we scrutinize the aspect of the financial sector's self-governance that is directly observable: mutual fund companies' voting on their peers' stocks. We find that considerations specific to investee firms' membership in the same industry as their investors do indeed impact voting. This impact is in the direction of supporting the investee's management. We show that the own-industry effect reduces director efficacy and lowers firm value as a result. We extend our analysis to other financial companies and show that they also tend to vote more favorably when it comes to their peers. Our results suggest that peer support is a corrupting factor in the financial sector's governance.

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Keywords: proxy voting • mutual funds • institutional investors • corporate governance

1. Introduction

The financial sector includes institutional investors who dominate corporate shareholdings.[1] This means that the financial sector has the distinction of being controlled by shareholders who are its members. If the exercise of voting rights is affected by membership of the same industry, this should impact the governance of financial firms relative to that of nonfinancial firms. Specifically, this may lead to voting to undermine one's rivals or to support one's peers. Our paper examines this issue in depth for mutual funds, the only type of institutional investor whose voting behavior is consistently observable. In other words, we study whether membership of the same industry as that of the firm they vote on influences mutual fund voting behavior. We find no evidence of funds seeking to undermine their rivals, but we do find evidence of peer support. We show that the own-industry effect reduces director efficacy and lowers firm value as a result. We additionally examine voting outcomes in the financial sector as a whole, and we also find evidence consistent with peer support. Our results have potentially wide-ranging implications for the (self-)governance of the financial sector.

The quality of governance in financial firms has been widely questioned, particularly in the wake of the recent financial crisis. These governance failures have been blamed in part on conflicts of interest pertaining to financial institutions as shareholders. For example, a European Commission report on the governance of financial institutions states that "conflicts of interest apparently arise most often because of lack of sufficient independence of institutional investors or their asset managers within financial groups. However, conflicts of interest can arise within institutional investors and asset managers too in numbers of ways, for instance on a personal level, as a consequence of the existence of 'old boys' networks' " (European Commission 2010, p. 28).

The above quote implies that both firm-level and personal-level conflicts of interest may be particularly common in the governance of financial institutions compared with that of nonfinancial firms. This is plausible, since both professional and personal links are more likely to be present when the investor and investee are both financial firms.[2] However, we are not aware of studies that examine such conflicts in the specific context of the financial sector.

Our paper focuses on three types of conflict of interest, which are more likely to be present when the firm being voted on is in the financial sector than when it is not. The first one is the "old boys' network" effect. Decision makers at the investing firm are especially likely to be connected to their counterparts at the investee if both have finance backgrounds: they are more likely to have received the same education, to be active in the same professional organizations, to have worked at the same companies in their past careers, and to expect to do so in the future. The notion that professional interaction of this kind can influence decision making has found support in a number of recent papers. For example, Ishii and Xuan (2010) report that

targets whose senior management is more connected to their acquirer through educational background and past employment are more likely to retain their CEOs and directors after the merger, and the retained CEOs are better compensated after the merger. In a context closest to ours, Butler and Gurun (2012) show that mutual funds vote more against proposals to limit CEO pay when the fund manager shares the CEO's educational background.

The second type of conflict of interest between the institutional investor and investee that is more common when the investee is also a financial firm is due to firm-level interaction. The existence of intraindustry competitive effects, whereby one firm's value-increasing actions decrease the value of its rivals, are well documented and cover a wide range of firm actions such as new product introductions (Chen et al. 2005), management forecasts (Kim et al. 2008), mergers (Becher et al. 2012), and stock repurchases (Massa et al. 2007), to name a few.[3] This literature implies that when a financial firm votes on an industry rival, it may face a conflict of interest whereby its fiduciary responsibility of increasing the rival firm's value may be at odds with the firm's incentive to undermine the rival. If the peer group is defined broadly enough, however, there could be supplier-and-distributor–type links between peer group members.

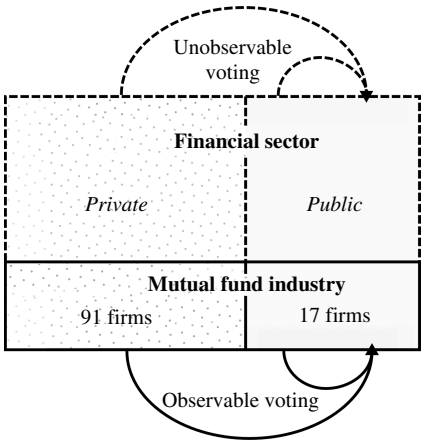
The third type of conflict of interest that is more likely to be observed between investor and investee when the investee is a financial firm is due to cross holdings of shares.[4] A financial firm may hold shares in its own institutional shareholder, which gives the firm another potential means of retaliating for any antimanagement votes by that shareholder, e.g., by voting against the shareholder's own management. Conversely, investor and investee may reciprocate by supporting each other. Although tit-for-tat corporate voting has not been studied in the literature, Bang (2010) finds evidence of tit-for-tat compensation when CEOs sit on each other's boards. Cross shareholdings by institutional investors are also reminiscent of keiretsus, whose members are known to cooperate with each other (Berglöf and Perotti 1994). Because the extent of cross shareholdings is much smaller in our context, whether it translates into management-friendly voting remains an empirical issue.

Using a sample of 14,554 votes cast by 108 mutual fund companies (MFCs) during 2004–2013, our paper studies whether these conflicts of interest actually influence voting. To compare how MFCs vote on own-industry firms as opposed to how they vote on firms from outside their industry, we take a sample of within-industry proposals that they vote on and match these to a set of management proposals drawn from outside the industry based on proposal type and on the identity of the voting MFC. We show that MFCs are almost 50% more likely to oppose management of firms involved in unrelated activities than to oppose management of firms in their own industry. We examine reasons why this may be the case by focusing on how MFCs vote on other MFCs.

First, voting appears to be influenced by the fear of retaliation, either in the form of being voted against in the future or being aggressively competed against in the future. Second, social ties between the voting and target firms increase the voting firm's support for the target's management. Our results suggest that there is "clubbiness" in the way MFCs vote on each other. (The *Oxford English Dictionary* defines "clubbiness" as "the quality of being friendly and sociable with fellow members of a group but not with outsiders."[5]) We then go on to examine the implications of this clubbiness. We show that directors elected in fund companies with greater own-industry support monitor senior management significantly less. This is recognized by the market, and so the size of abnormal returns earned at the time these directors are elected is decreasing in the level of own-industry support. To generalize our findings, we then examine whether other financial companies apart from MFCs also vote more favorably when it comes to their own-industry members, and we find evidence that this is the case as well.

Figure 1 shows how the voting interactions we study fit into the overall governance of the financial sector. To a large extent, public companies in the financial sector are held (and therefore governed) by other financial firms, both public and private. Both public and private financial firms vote on publicly held finance companies, represented by the dashed arrows. However, although the public companies themselves know how their investors voted, this information is not available to outsiders, except for the aggregate voting outcome. Instead, we can observe voting patterns within a subset of the financial sector: the mutual fund industry, which

Figure 1. Voting Relationships in the Financial Sector and the Mutual Fund Industry



is represented by the continuous arrows. The figure shows that our sample comprises 17 public MFCs that vote on each other, as well as 91 private MFCs that vote on the public ones.

The notion that conflicts of interest influence voting by institutional shareholders has received support in the literature. Davis and Kim (2007), Ashraf et al. (2012), and Cvijanovic et al. (2016) all examine how MFCs vote on firms to which they provide pension fund services. Whereas Davis and Kim and Ashraf et al. find that companies with more pension fund clients vote more with management across the board as opposed to favoring own clients, Cvijanovic et al. reexamine the evidence and conclude that MFCs do vote more with clients. Butler and Gurun (2012) examine how fund managers vote on shareholder proposals to limit CEO pay when the fund manager and the CEO are connected through an educational network. They find significant evidence that fund managers vote to limit CEO pay less when the fund manager and the CEO share the same education. Agrawal (2012) studies how union pension funds vote and finds that they not only seem to care about the interests of their pension fund clients but also pursue worker interests.

Our paper sits at the intersection of the literatures on shareholder voting, the behavior of financial institutions, and competitive interactions between rival firms. Our contribution to the shareholder voting literature consists of identifying a novel conflict of interest between the voter and the target, whereby the two compete in the same product market. Unlike in conflicts of interest studied elsewhere, our conflicted parties are entire organizations rather than their departments/divisions (Davis and Kim 2007, Ashraf et al. 2012, Cvijanovic et al. 2016) or individuals (Butler and Gurun 2012) within them. This means that retaliation by the target can take place on multiple fronts such as in the product market, through voting, in the labor market, through corporate communication, and through interactions with customers and suppliers. In existing work, retaliation by the target can take place on one front alone. For example, in Davis and Kim (2007), the impact of retaliation by the target is limited to the loss of the annual management fee paid by the target's pension plan (the median fee does not exceed $0.2 million). Alternatively, in Butler and Gurun's setting, any potential retaliation operates via personal relationships between the target's CEO and the fund manager (even though fund managers often do not make voting decisions on their own). The amount that can be lost, then, is the hypothesized personal relationship between the fund manager and the CEO.

Our contribution to the literature on financial institutions is, first, to identify and study new conflicts of interest that may prompt them to deviate from their fiduciary duty to clients. Furthermore, our paper is the first, to our knowledge, to advance and find support for the assertion that financial institutions' collective indulgence of their industry peers undermines the financial sector's governance.

Finally, our paper contributes to our understanding of the scope of interaction among rival firms. It is well known that product market competitors react to each other's actions in adjacent spheres such as recruitment, research and development, and advertising. We show, however, that the implications of product market competition can extend even further, to such outlying activities as the exercise of voting rights.

Our work has at least two important policy implications. First, the notion of conflicts of interest, which institutional investors address in their voting policies, should be explicitly defined to include not only voting on target firms they do business with but also voting on target firms they compete with. Doing so would take voting out of the hands of individuals most inclined to vote in a conflicted manner and/or constrain these individuals' discretion.[6] Second, proxy voting should be required to be confidential at firms in the financial sector; i.e., targets should not be able to discover how different shareholders voted. This would mitigate a key reason for conflicted voting on a peer company, which is potential retaliation/reciprocation by the peer's management.

The rest of our paper has the following structure. In §2 we present the institutional details relating to voting and develop our hypotheses. In §3 we introduce our data. In §4 we present our results relating to voting by MFCs. In §5 we extend our findings to voting by all financial firms. Section 6 presents our robustness tests, and §7 concludes.

2. Institutional Background and Hypotheses

2.1. Institutional Details

The largest owners of stock in U.S. companies are institutional investors. According to Tonello and Rabimov (2010), institutional investors owned 73% of the largest 1,000 U.S. corporations in 2009. Among institutions, MFCs were the largest stock owners, with a 36% share of this holding. Being the dominant institutional investor type gives MFCs considerable corporate influence.

A key arena where they can exercise this influence is shareholder proxy voting. Each mutual fund votes on proposals contained in the proxy statement of each company whose stock it holds. Proxy statements contain proposals put forward both by the management and by the shareholders of the company concerned. Mutual funds have a fiduciary duty to vote in the interests of their investors on these proposals. Prior to 2003, the way mutual funds voted was not subject to public disclosure requirements, and it was often argued

that mutual funds were too soft on corporate management and that they suffered from conflicts of interest (e.g., Teitelbaum 2003). In addition, it was claimed that mutual funds frequently abstained from voting. To encourage mutual funds to engage more actively with the governance process, the U.S. Securities and Exchange Commission (SEC) decided to require funds to disclose their votes starting in 2003. This regulatory action was prompted in part by the Enron scandal, which led to a drive to improve corporate governance in the United States. Whether the change in disclosure rules had an impact on how mutual funds vote is open to discussion. Whereas Cremers and Romano (2011) find little evidence that MFCs changed their behavior after they were required to make public how they voted, Davis and Kim (2007) suggest that MFCs are wary of the public scrutiny that they face when voting, especially since the change in disclosure rules in 2003.

As MFCs vote on multiple proposals by many firms, they often enlist the help of a proxy advisory firm such as Institutional Shareholder Services (ISS) or Glass Lewis to provide guidance on how to vote in a value-increasing fashion. Bethel and Gillan (2002) show that proxy advisory firms play an important role in influencing the outcome of shareholder votes.

Rothberg and Lilien (2006) describe voting procedures that are used by the largest U.S. mutual fund families. Certain management companies use a committee formed at the company level and have company-level voting guidelines for each proposal type. For example, Fidelity will generally vote against the introduction of new classes of voting stock with differential voting rights. If there is no policy, each vote is generally considered on a case-by-case basis. Each mutual fund managed by the fund company votes on the shares it owns. In companies where voting is not centralized, fund managers have more freedom as to how they vote. Recent work by Morgan et al. (2011) showed that there may be greater differences in the way funds within a family vote for shareholder proposals than for management proposals. Because there are far fewer shareholder proposals than management proposals and because of shareholder proposals' greater heterogeneity, we focus in this study on management proposals alone. (If we include shareholder proposals in our analysis, this has little meaningful effect on our results.) Our aim is to understand whether being in the same business makes MFCs vote differently on each other from how they vote on nonindustry firms. To examine whether mutual funds vote differently in the presence of conflicts of interest, we benchmark their votes against the target firm management's voting recommendation.

2.2. Hypotheses

We are interested in whether MFCs vote differently on their industry peers from how they vote on other firms. We propose two competing hypotheses as possible drivers of voting behavior.

The first hypothesis is the *rivalry hypothesis*. Under this hypothesis, voting MFCs see target MFCs primarily as rivals, and their prime concern is inhibiting the conduct of business of these competitors. In this case, we would expect MFCs to vote more against the management of rival MFCs compared with how they would vote on other firms.

The second hypothesis is the *clubbiness hypothesis*. Under this hypothesis, voting MFCs support target MFCs more than they do other firms. This could be driven by the fear of retaliation (on the downside) or by the hope of reciprocation (on the upside). In particular, rival MFCs may retaliate by voting against the voting company. Rivals can also get back at each other by competing more vigorously in the future. For example the target can retaliate against the voting company by advertising aggressively against them, by poaching their employees, by threatening their distributors, or by starting funds in their sectors. Alternatively, clubbiness could have its origin in professional interactions between senior employees of the voting and target firms. For example, a decision maker at the voting firm may wish to avoid antagonizing managers of another firm in the same industry in view of their possible future interactions in the labor market, professional bodies, or lobbying the legislature over common causes. In summary, clubbiness can be the result of several phenomena expected to generate peer support including the fear of retaliation, the hope of reciprocation, and the presence of social ties.

3. Data

We obtain our voting data from the voting analytics database provided by ISS, which collects MFC voting data from mutual funds' form N-PX annual submissions. Mutual funds are required by the SEC to file this form at the end of August of each year, disclosing how they voted on different proposals during the course of the year ending June 30. For each proposal, the form contains information on the content of the proposal, whether it was proposed by the issuer or by a shareholder, and details of how the fund voted. Observations in the ISS database are at the fund-proposal level. Mandatory submission of form N-PX was phased in during 2003, but because submissions were not fully up and running till the end of the year, our data span the period from the start of 2004 to the end of 2013. The ISS database also contains the ISS recommendation regarding the proposals, the number of shares voted for the proposal and the proposal outcome.

Our aim is to understand how MFCs vote when they hold stock in other MFCs. Whereas the target company whose proposal is being voted on is necessarily public, the voting company can be either public or private.

Table 1. Descriptive Statistics of Investing and Target MFCs

	Investing MFCs		Target MFCs
	Public	Private	Public
Number of companies	17	91	11
Market capitalization (US$ billion)			
Mean	24.61		14.15
Median	12.43		14.92
Number of funds			
Mean	11.93	6.63	12.86
Median	9	4	10

Notes. This table reports the summary statistics of listed MFCs being voted on during 2004–2013 and those of investing MFCs casting votes during the same period. We use voting data from ISS. *Market capitalization* is the common share price multiplied by total number of shares outstanding at the end of the fiscal year from Compustat. The statistics are averaged across voting years.

Table 2. Descriptive Statistics of Stakes in MFCs

Panel A: Institutional ownership in target MFCs

Ownership (% of shares outstanding)	Mean	Q1	Median	Q3
Bank trusts	6.46	1.49	4.25	6.02
Insurance companies	3.03	1.47	2.09	4.06
Mutual fund companies	18.87	13.33	18.29	24.20
Other investment companies and advisors	14.24	6.37	12.97	18.40
Corporate (private) pension funds	0.42	0.08	0.14	0.26
Public pension funds	1.66	0.58	1.62	2.49
University and foundation endowments	0.07	0.03	0.05	0.09
Miscellaneous	2.01	0.35	0.74	2.34
Others	1.46	0.04	0.80	2.01

Panel B: Stakes between investing MFCs and target MFCs

	Mean	Q1	Median	Q3
Holding stake (%)	0.2350	0.0115	0.0507	0.1597
Ownership stake (%)	0.3118	0.1621	0.2098	0.3782
Reciprocal stake (%)	0.6837	0.0435	0.2754	0.8170

Notes. Panel A reports the summary statistics of ownership by different stakeholders in target MFCs. Ownership is the number of shares owned by each group of institutions, expressed as a percentage of total shares outstanding. We use Bushee's (1998) investment-type classification and our identification of MFCs from the ISS voting data to aggregate ownership by institutional type across firm-years. Panel B reports the summary statistics of stakes between investing and target MFCs. *Holding stake* is the percentage of the value of the investing MFC's portfolio represented by the target MFC's shares. *Ownership stake* is the percentage of sole voting authority shares (out of the total number of shares outstanding) of the target MFC held by the voting MFC. *Reciprocal stake* is the percentage of sole voting authority shares (out of the total number of shares outstanding) of the investing MFC held by the target MFC, which is measurable only when the investing MFC is publicly traded.

Table 1 contains descriptive statistics on the number and size of the target MFCs in our sample. In addition, the table presents statistics on the public versus private mix and the number of MFCs that invested in these target MFCs in our sample.

Our sample contains 17 public MFCs that may both vote and be voted on and 91 private MFCs that vote on the public companies but are not voted on. This is illustrated in Figure 1. When we focus on voting by public firms only, our sample comprises 70 distinct voter–target pairs, representing 1,677 voting decisions. When we study voting by both public and private firms, our sample grows to 468 distinct voter–target pairs, representing 14,554 voting decisions. Tables A.1 and B.1 in Appendix A present a list of MFCs contained in our sample for each category.

In Table 2, panel A, we present the fraction of MFCs in our sample held by institutional investors based on the 13F database. This database contains ownership information by institutional managers with greater than $100 million of equity securities under discretionary management; common stock positions greater than 10,000 shares or those valued at $200,000 or more are included. We use Bushee's (1998) investment-type classification and our identification of MFCs from the ISS voting data to aggregate ownership by institutional type across firm-years. The table shows that approximately half of mutual fund shares are held by other finance concerns, illustrating the extent of the self-governance in the financial services sector. Importantly, the average size of the ownership stake held by all MFCs is 19%, the largest among all groups of institutional investors holding the target shares.

Table 2, panel B, presents descriptive statistics on the cross holdings between MFCs in our sample. To understand how important the target company's shares are in the voting company's portfolio, we calculate the proportion of the investing MFC portfolio represented by the target MFC shares. We report this variable as *holding stake* in Table 2, panel B, and it can be seen from the table that the average holding stake is around a fifth of 1%. These stakes are so small because MFCs hold well-diversified portfolios.

In our sample, the average fraction of the target held by the voting company, which we term *ownership stake*, is 0.31%, and these stakes aggregate to the 19% total holding by all MFCs.[7] The average number of MFCs holding each target MFC in our sample is 76. The fraction of voting stocks held in the investing MFC by the target MFC (which we call *reciprocal stake*) has a median of 0.3% and is, on average, 0.68%, indicating that it is right skewed.[8]

To understand how MFCs vote on each other, we need to aggregate the ISS data to the fund family level. We do so using the approach taken by both Davis and Kim (2007) and Ashraf et al. (2012); i.e., we register the fund family as supporting a proposal if the majority of its funds support the proposal and as opposing it otherwise (but note that lack of unanimity within a

Table 3. Descriptive Statistics of Proposals Voted by MFCs

Type	Description	Number of proposals	Number of votes
M0101	Ratify auditors	66	1,523
M0125	Other business	7	189
M0126	Amend articles/bylaws/ Charter–nonroutine	4	45
M0201	Elect director	465	11,474
M0215	Declassify the board of directors	2	58
M0304	Increase authorized common stock	2	46
M0306	Increase authorized preferred and common stock	2	22
M0405	Approve merger agreement	2	13
M0512	Amend qualified employee stock purchase plan	2	33
M0522	Approve omnibus stock plan	5	76
M0524	Amend omnibus stock plan	13	211
M0526	Amend nonemployee director stock option plan	1	10
M0535	Approve/amend executive incentive bonus plan	13	249
M0548	Approve repricing of options	1	9
M0550	Advisory vote to ratify named executive officers' compensation	20	526
M0598	Approve nonemployee director omnibus stock plan	2	59
M0605	Adopt/increase supermajority vote requirement for amendment	1	11
	Total	608	14,554

Note. This table reports the types of proposals voted on at MFCs for other MFCs in the same industry during 2004–2013.

family is uncommon, and excluding such votes does not alter our results).

Table 3 presents descriptive statistics of proposals voted by MFCs. Between 2004 and 2013, MFCs cast 14,554 votes pertaining to 608 proposals that were tabled by other MFCs. The proposals voted on were drawn from 17 categories. Although a large fraction of the proposals are concerned with the election of directors, many types are concerned with other corporate decisions such as the approval of merger agreements, increasing common stock, and the approval of executive bonus plans.

4. Empirical Analyses of Voting by MFCs

In the first part of this section, we report on how MFCs vote on own-industry firms compared with how they vote on firms from other industries. In the second part, we zoom in on voting within the mutual fund industry, which allows us to model the interactions between MFCs in greater detail.

4.1. Summary Statistics of Votes Cast by MFCs

To begin, we present in Table 4 summary statistics on how MFCs voted across all industries, including their own. Panel A shows the number of proposals voted on and passed, and panel B shows the total number of votes cast and the proportion in favor of management. Between 2004 and 2013, 14,554 votes were cast on 608 proposals by MFCs on other MFCs. Of these votes, 93.3% were cast with management. At the same time, approximately 9.8 million votes were cast by MFCs on firms outside their industry, 90.2% of these votes being with management.

Table 4, panel C presents t-statistics and z-statistics that test whether there is a significant difference in votes cast with management and proposal pass rates between the mutual fund industry and all the 48 Fama and French industries, based on the Fama and French (1997) classifications. At first it may appear that, in spite of its statistical significance (t-statistic of 14.84 and z-statistic of 12.47), the 3.1-percentage-point difference between interindustry and intraindustry management support has modest economic significance. This is not so. First, this translates into an intraindustry rejection rate for management proposals that is nearly 50% higher (3.1%/(100% − 93.3%) = 1.46) than the interindustry one. Second, the effect of the target's industry membership on the proportion of management proposals receiving a given level of support is even stronger.

For example, whereas only 100% − 96.22% = 3.78% of management proposals originating within the mutual fund industry are rejected by the majority of shareholders, the rejection rate for nonindustry proposals is 100% − 90.51% = 9.49%, with the difference highly statistically significant. The 9.49%/3.78% = 2.51 "rejection ratio" means that being outside the fund industry increases the management's chances of defeat by over 150%, an enormous disparity.

Of course, shareholder votes are generally nonbinding. Instead, analysts and observers tend to scrutinize the size of the opposition to management, with hurdles such as 30%, 20%, and 10% being important in attracting both manager and media attention.[9] In fact, even shareholder opposition in the single digits can be deemed strong enough to attract media interest and to be termed "embarrassing" and "a shareholder rebellion."[10] As Table 4, panel C, shows, for 70%, 80%, and 90% hurdle rates, the difference in intraindustry and interindustry support is always highly statistically significant, with rejection ratios of 2.26, 2.20, and 1.89, respectively.

Table 4, panel C also shows average voting results for each of the 48 Fama–French industries excluding the mutual fund industry. The strength of support of MFCs for their own industry is immediately obvious, as both the pass rate and the proportion of management support are higher for the mutual fund industry than for any of the 48 Fama–French industries.

Overall, our summary statistics show that MFCs vote more frequently with management in their own industry. However, these results do not control for other

Table 4. Vote Outcomes on Proposals Voted on at MFCs vs. Non-MFCs

Panel A: Votes cast and proportion with management

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	All
Mutual fund industry											
Number of votes	386	520	1,281	1,403	1,543	1,562	1,647	2,143	2,126	1,943	14,554
% of votes cast with management	89.06	88.46	86.96	92.87	95.20	96.80	94.35	92.53	91.20	97.94	93.31
Other industries											
Number of votes	392,781	428,025	989,622	1,035,208	1,083,311	1,227,229	1,237,202	1,230,927	1,263,085	932,814	9,820,204
% of votes cast with management	89.52	91.02	91.27	91.83	92.51	88.78	86.26	90.61	90.62	90.88	90.24

Panel B: Proposals voted and passed

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	All
Mutual fund industry											
Number of proposals voted	48	56	59	56	66	61	61	64	65	72	608
% of proposals passed	93.62	98.21	83.05	98.21	98.49	98.36	98.36	96.88	98.46	98.61	96.22
Other industries											
Number of proposals voted	22,230	19,984	20,346	20,124	20,140	19,885	17,897	18,912	18,352	15,569	193,439
% of proposals passed	78.22	88.61	90.65	84.39	87.61	95.67	95.27	96.47	96.35	95.74	90.51

Panel C: Univariate tests of pass rate and proportion of votes cast with management in the mutual fund industry vs. other industries

	Mutual fund industry (1)	Other industries (2)	48 Fama–French industries (excluding mutual fund)					Difference (1) – (2)	*t*-stat.	*z*-stat.
			Min	Q1	Q2	Q3	Max			
% of votes cast with management	93.31	90.24	79.97	88.78	90.37	91.46	93.14	3.07	14.84***	12.47***
% of proposals passed	96.22	90.51	79.96	89.46	90.75	92.05	94.24	5.71	7.35***	4.80***
% of proposals passed at least 60% support	95.89	90.01	79.86	89.05	90.30	91.53	93.88	5.88	7.27***	4.83***
% of proposals passed at least 70% support	95.23	89.20	79.44	88.22	89.55	90.22	93.08	6.03	6.95***	4.79***
% of proposals passed at least 80% support	94.41	87.69	75.75	86.34	87.69	88.59	90.34	6.72	7.18***	5.04***
% of proposals passed at least 90% support	91.61	84.14	72.58	82.46	84.31	85.39	87.85	7.47	6.62***	5.04***

Notes. This table reports the summary statistics of all votes cast by MFCs on proposals at MFCs and portfolio firms outside the mutual fund industry during 2004–2013. We aggregate votes by funds within a family using the method in Davis and Kim (2007) and Ashraf et al. (2012). We create a dummy variable, *votes cast with management*, that equals 1 if the majority of the funds in a fund family support a proposal and 0 otherwise. Panel C presents *t*-statistics and *z*-statistics that test whether there is a significant difference in votes cast with management and proposal pass rates between the mutual fund industry and all the 48 Fama and French industries, based on the Fama and French (1997) classifications.

***Statistically significant at the 1% level.

influences on the voting decision. We now turn to this issue.

4.2. Cross-Industry Regressions

Our aim is to examine the intensity with which MFCs vote in favor of management on own-industry members versus on members of other industries. In Table 5, we model the decision to vote with management using an indicator variable that equals 1 if a given MFC votes in favor of management. Because the dependent variable in this regression is a categorical variable, we take a logit regression approach.

Many MFCs have company-level voting guidelines for each proposal type, and therefore, in our logit regressions, we use fixed effects for voting company/proposal-type combinations.[11] To control for time variation in voting behavior, we also include year fixed effects. All our standard errors are double clustered by voting company and proposal type to allow for correlation in voting behavior between different MFCs for a particular proposal type and for voting by the same MFC. For example, if all MFCs are voting on amending an omnibus stock plan, then we assume that the way they vote will be correlated. In addition, if BlackRock is voting on the election of a particular director and on an omnibus stock plan at a given target firm, then we assume the two voting decisions are correlated.

To determine our final sample, we use a matching approach that is based on voting company and proposal type. We have 14,554 observations of mutual fund votes on other MFCs. For each of these votes by MFC i on proposal type j on MFC k, we match it to a vote by the same MFC i on the same proposal type j in the same voting season, but with the target of the vote being a company that is outside the mutual fund industry and is closest in size to the original MFC, k, where size is measured using market capitalization, which is available for listed MFCs. We exclude firms in the financial industry from the non-mutual fund group

Table 5. The Probability of Voting with Target Management's Recommendation Across Industries

Panel A: All votes

	Model 1	Model 2	Model 3	Model 4
Intercept	3.9541 (0.9691)	3.5897 (0.9676)	−6.2152*** (0.0001)	−6.2615*** (0.0001)
Own industry (0, 1)	0.3101*** (0.0001)	0.3093*** (0.0001)	0.8423*** (0.0001)	0.8408*** (0.0001)
ISS recommendation = Management (0, 1) × *Own industry* (0, 1)			−1.3541*** (0.0001)	−1.3509*** (0.0001)
ISS recommendation = Management (0, 1)			6.4709*** (0.0001)	6.4691*** (0.0001)
Closeness (0, 1)		0.1934* (0.0838)		0.0809 (0.6057)
Holding stake		0.0759** (0.0133)		0.0107* (0.0895)
Public voting firm (0, 1)	−34.7591 (0.9785)	−31.0676 (0.9779)	−22.1417 (0.9832)	−22.3921 (0.9804)
ln(*Voting firm's number of funds*)	0.3876*** (0.0001)	0.4027*** (0.0001)	0.1565** (0.0230)	0.1568** (0.0245)
Target firm's prior year industry adjusted return	0.0844 (0.3315)	0.0630 (0.4707)	−0.0184 (0.8801)	−0.0169 (0.8898)
ln(*Target firm's assets*)	0.0910*** (0.0001)	0.0999*** (0.0001)	0.1169*** (0.0001)	0.1204*** (0.0001)
N	29,108	29,108	29,108	29,108
Pseudo-R^2	0.3133	0.3140	0.4303	0.4325
Regression's *p*-value	0.0001	0.0001	0.0001	0.0001

Panel B: Votes on contentious proposals

	Model 1 ISS against management votes	Model 2 Close-call votes	Model 3 Low non-mutual fund support votes	Model 4 Director election votes
Own industry (0, 1)	0.2769** (0.0105)	0.9186*** (0.0001)	0.4365*** (0.0041)	0.7470*** (0.0001)
Other controls as in panel A	Yes	Yes	Yes	Yes
N	2,124	678	1,816	22,948
Pseudo R^2	0.1872	0.1525	0.1629	0.2338
Regression's *p*-value	0.0001	0.0001	0.0001	0.0001

Notes. In this table, we report logistic regressions modeling the probability of investing MFCs voting with target company's management recommendations during 2004–2013. The sample includes all mutual fund industry votes and a matched sample of non-mutual fund industry votes. In panel A, we select the matched votes cast from the same voting company, in the same voting season, on the same proposal type, and on the target company from other industries that has the closest size to that of the target MFC. We exclude firms in the financial industry from the "other industries" group in our matching procedure. In panel B, we select the matched votes that have the same characteristic in each model (ISS against management votes in Model 1, close-call votes (percentage of "for" votes between 25% and 75%) in Model 2, low non-mutual fund support votes (percentage of non-mutual fund "for" vote less than 50%) in Model 3, and director election votes in Model 4) from the same voting company, in the same voting season, on the same proposal type, and on the target company from another industry that is closest in size to the target MFC. The dependent variable is 1 if the majority of funds within a family vote with the target management recommendation. *Own industry* (0, 1) equals 1 if the company being voted on (the target company) is in the mutual fund industry. *Closeness* (0, 1) equals 1 if the distance between the headquarters of the voting MFC and the headquarters of the target MFC is less than 100 miles. *Holding stake* is fitted value from the first-stage regression in Model 1 of Table B.1 in Appendix B. *Public voting firm* (0, 1) equals 1 if the voting firm is publicly traded. Other variables are self-explanatory or defined elsewhere. All regressions control for (*investing MFC* × *proposal type*) and industry and year fixed effects. We double cluster standard errors by (*investing MFC* × *proposal type*) and report *p*-values in parentheses.

*Statistically significant at the 10% level; **statistically significant at the 5% level; ***statistically significant at the 1% level.

in our matching procedure.[12] This matching procedure helps us ensure that these characteristics do not explain differences in voting behavior.

To explain the decision to vote with management, we use a number of control variables together with a dummy variable *own industry* that equals 1 if the company whose proposal is being voted on is from the mutual fund industry as well and 0 if it is from any other industries. Because an MFC is more likely to vote for management if ISS supports management, we include a dummy variable, *ISS = management*, that equals 1 if ISS agrees with management's recommendation on a particular proposal. The impact of the ISS recommendation on the way MFCs vote may be different if the recommendation relates to own-industry companies as opposed to other firms. This is because

one may expect MFCs to believe that they have a richer information set when it comes to their own-industry investments and therefore to pay less heed to the ISS recommendation in these cases. Because of this, we interact *ISS = management* with *own industry* to allow for this possibility.

We also include the variable *holding stake*, which measures how much the voting MFC has invested in the target. It is defined as the fraction of the value of the voting company's total portfolio invested in the target company's shares. We would expect that if the voting MFC has a larger amount invested in the target, it is more optimistic about the future performance of the target and hence is more likely to agree with the actions of its management.

It may be argued that the holding stake and ownership stake variables are endogenous because fund companies wishing to vote more strongly with management may take a larger position. To address this potential endogeneity issue, we use the fuzzy regression discontinuity design approach as in Schmidt (2012) and Fich et al. (2015). When the Russell 1000 and 2000 indices are reconstituted each June, fund management companies tracking these indexes are forced to change their holdings accordingly. We use these events to generate exogenous changes in the stake variables. We employ a two-stage instrumental variable approach. We first regress changes in holding stake and ownership stake on discrete changes in Russell membership of portfolio firms and on control variables. We measure the changes in the holding stake and ownership stake from the third quarter of the prior year to the third quarter of the current year because the Russell indexes are reconstituted in June every year.[13] The results of doing this are presented in Model 1 of Table B.1 in Appendix B for the holding stake dependent variable and in Model 2 of Table B.1 for the ownership stake variable.[14] Our Russell index reconstitution instruments are mostly significant, with the *F*-statistics above critical values from a Stock–Yogo weak identification test (Stock and Yogo 2005). We use the methods outlined by Stock and Watson (2010) and Hall and Peixe (2003) to test the validity of our instruments and ensure that the relevancy condition is satisfied. In the remainder of our analysis, we use the fitted value of the holding stake variable from this first-stage regression in Model 1 instead of the actual variable itself.

The size of the target and of the voting firm may have a bearing on voting behavior. Since all target firms are public, we control for the size of target firms by including the natural logarithm of the target firm's market value of assets in the regressions. As a substantial fraction of voting firms are private, we control for their scale in our regressions by including the natural logarithm of the number of funds that are managed by each voting firm as an explanatory variable in our regressions.[15] To test whether the voting firm being private or public conditions voting behavior, we also include *public voting firm* in our cross-industry regressions as a control variable.

Hong et al. (2005) show evidence of word-of-mouth effects among institutional money managers. Because these word-of-mouth effects are more likely to arise if money managers are geographically close, we include the dummy variable *closeness*, which is set to unity if the distance between the headquarters of the voting company and the headquarters of the target is less than 100 miles and to 0 otherwise.

The results of our cross-industry regressions are presented in Table 5. The main independent variable of interest is *own industry,* which tells us whether MFCs vote differently on own-industry targets. Across all specifications, *own industry* is significantly positive, which suggests that MFCs are biased when it comes to voting on other members of the same industry. The marginal effect of the own-industry dummy on the propensity to vote with management is 2.85 percentage points.[16] As expected, MFCs vote more with management when ISS and management agree: the marginal effect of ISS agreeing with management on the propensity to vote with management is 54.12 percentage points. We also find that the influence of the ISS recommendation is smaller when the firm being voted on is an own-industry company.[17] This is consistent with the notion that MFCs discount the ISS recommendation more when it comes to decision making on their home turf. *Holding stake* is positive and significant, as we would expect, indicating that firms with a greater amount invested in the target tend to believe more in the policies of management and are therefore more supportive of it in their voting behavior.[18] We find that the *public* dummy variable is insignificant, which suggests that whether the voting firm is private or public has little impact on how it votes across all firms.

If MFCs vote more favorably on own-industry companies, then we would expect this support to increase further for more contentious proposals where their votes are likely to be more influential. To test whether this is the case, we rerun the regressions of Table 5, panel A, including only contentious proposals, and the results of doing so are presented in Table 5, panel B. In this table, we define contentious proposals in various ways. In Model 1, these are those proposals where ISS is opposed to the management proposal concerned. In Model 2, these are "close-call" proposals where the percentage of "for" votes is between 25% and 75%. In Model 3, these are proposals where the level of nonmutual fund support is low and less than 50%.

It is evident from Table 5, panel B that irrespective of how we define contentious proposals, the own-industry effect is greater than for the sample as a

whole. For the ISS's against-management proposals, the marginal effect on the own-industry dummy rises to 4.05%. The marginal effect on the own-industry dummy rises to 4.42% for close-call votes and to 3.85% for low non-mutual fund support proposals.

Cai et al. (2009) highlight that even small changes in support for directors at the time of their election can have a large economic effect on their diligence. For example, they show that even though the vast majority of board members are elected with over 90% shareholder support, "a 1% decrease in the compensation committee chair votes is associated with a reduction in unexplained CEO compensation by approximately $220,000 in the following year" (p. 2410). Given the importance of director election results, we would expect MFCs to vote more supportively of own-industry companies for proposals relating to the election of directors. Model 4 in Table 5, panel B shows the results of running our analysis exclusively for director elections. In this case, the marginal effect on the own-industry dummy rises to 5.00%, well above the 2.85% for the sample as a whole.

Overall, the evidence presented in our cross-industry analysis suggests that clubbiness rather than rivalry explains how MFCs vote on their industry peers. In the following within-industry analysis section, we explore why this is the case.

4.3. Within-Industry Results

We now focus on the behavior of MFCs when they vote on own-industry members only. We start by discussing potential influences on the voting decision in this context. First, consider the threat of retaliation. If the management of the target is voted against, they may retaliate by voting against the voting company in the future. Alternatively, because the target and the voting company are in the same sector, the target can seek to retaliate against the voting company on other fronts.

To proxy for these retaliation possibilities in our within-industry analyses, we proceed as follows. In the case of voting retaliation, as this is only possible if the voting company is public, we include a *public voting company* dummy variable. We would expect public voting companies to vote more generously toward management because of the fear of future retaliation. Because the potential for retaliation by the target in the future is increasing in the stake the target has in the voting company, we also include this variable in our within-industry analysis and label it *reciprocal stake*. As the threat of marketplace retaliation by the target is greater the more the voting company and the target company compete, we include a measure of the degree to which the two companies compete, labeled *competitive threat*.

Competitive threat captures the extent to which the target company's fund offerings overlap with those of the voting company and hence pose a threat to its revenues. For each Lipper investment objective that both voting and target MFCs have funds in, the measure involves calculating the product of two variables. The first is the proportion of the voting MFC's assets under management in that investment objective, which is indicative of how important the objective is for the revenues of the voting MFC, and the second is the target MFC's market share in that objective, which measures the threat posed by the target to the voting firm's revenues in that objective. The product of these two variables is then summed across Lipper objectives to generate our *competitive threat* variable, i.e., the average threat the target company presents to the voting company across investment objectives.[19]

The voting company's behavior today may also be influenced by its past actions. In particular, if the target was friendly toward the voting company in the past, this may be reciprocated by the voting company the next time around. To allow for this possibility, we include the variable *friendly target*, which captures the percentage of the time that the target voted with the management of the voting company in the last voting season.

When considering how same industry companies vote on each other, there are two additional influences on their voting behavior that stem from these companies being similar entities. First, they share common information. Second, they have common interests.[20] To capture the degree to which MFCs have common information in our analysis, we measure how frequently they vote together on third parties (*common information*). We measure *common interest* when it comes to a given proposal by measuring whether today's voting company tabled a similar proposal last period.[21] These variables capture the extent to which same industry companies make similar decisions and the extent to which the proposals being tabled are consistent with the voting company management's behavior.

Senior managers in the same industry are likely to be socially connected. Voting firms that have stronger social ties with target firms can be expected to vote more with the management of the target. To measure these ties, we conduct a point-to-point analysis between voting and target firms using the BoardEx data set, which allows us to identify all the connections between senior executives (including some fund managers) and board members of any two companies. BoardEx defines social ties as an overlap in employment, board membership, education, or social activities of two firms' board members and top managers. We include a dummy variable *social ties* that is set to 1 if there is any connection between the target and voting company and 0 otherwise.

For our within-industry analysis, in addition to the above variables, we also include the same variables

that we used to explain voting behavior in the cross-industry analysis.

We first run our regressions for the full sample where both public and private voting firms vote on own-industry targets. We then run our within-industry regressions using public voting firms only. All regressions include voting company/proposal-type and year fixed effects.[22]

The results of our regressions using the full sample of 14,554 votes by all voting firms are presented in the first three columns of Table 6. We find that *public voting firm* is positive and significant, which suggests that the threat of voting retaliation leads to voting more sympathetically with the management of the target. The marginal effect of *public voting firm* is a change in the probability of voting for management of 17.46 percentage points.

It is natural to ask whether the reason why public firms vote more supportively in their own industry than do private firms is because they are more supportive of all firms in general. We therefore include a *public voting firm* dummy in our cross-industry regressions in Table 5, panel A. We find that it is insignificant, which suggests that public firms' generosity toward targets' management is limited to their industry peers.

Apart from retaliation via voting, the possibility of retaliation in the marketplace appears to be a determinant of voting behavior, as *competitive threat* is highly significant across specifications. This lends credence to the notion that fund companies are less likely to vote against the management of closer competitors out of concern about the damage these competitors may inflict in return.[23] For the full sample, the marginal effect of a one-standard-deviation change in *competitive threat* on the probability of voting with management is 1.59 percentage points.

For the own-industry sample, the impact of ISS agreeing with management on the propensity to vote has a marginal effect of 24.85 percentage points. The marginal effect of ISS recommendations within the mutual fund industry is therefore less than half of the marginal effect across all industries. This is consistent with our conjecture that ISS recommendations are given less weight when they concern own-industry members. In addition, *common information*, which captures the information overlap between the voting firm and the target, is positively statistically significant. This indicates that the voting firm is more likely to vote with the management of the target when they generally share each other's views.

Since we can only observe *friendly target*, *reciprocal stake*, *common interest*, and *social ties* if the voting firm is public and therefore can be voted on, we now examine the effect of these variables on the propensity to vote with management using the 1,677 votes by public voting firms.[24] We present our regressions including these additional variables in the last two columns of Table 6.

Our results show that in the case of voting by public MFCs, *competitive threat* has an economically much more substantial role to play than it does for the full set of within-mutual-fund-industry votes, and its marginal effect on the probability of voting with management is 10.18 percentage points. Our public-only sample also allows us to test the role of social ties. We find that the marginal propensity to vote with management increases by 10.12 percentage points when the board members, fund managers, and senior executives of the voting and target firms are socially tied.[25]

With the average holding and reciprocal stakes being only 0.19% and 0.65%, respectively, why should it matter economically how mutual funds vote on their rivals, and how the rivals vote in response? Model 5 of Table 6 sheds light on this. Despite the small size of stakes MFCs have in each other, *friendly target* and *reciprocal stake* are both statistically significant and have marginal effects of 10.16 percentage points and 2.51 percentage points, respectively, on voting with management for one-standard-deviation increases in their values.

It may be argued that the reason why MFCs support each other is because they have similar information sets and have a preference for the type of proposals tabled by the target. Our variables *common interest* and *common information* control for these possibilities. We find that *public voting firm*, *competitive threat*, *reciprocal stake*, and *social ties* are statistically significant. This tells us that fear of retaliation and social ties are drivers of the way mutual funds vote on each other above and beyond their common interest and common information.

In our data set, there are six instances of single tit-for-tat behavior and six instances of back-to-back tit-for-tat actions.[26] We believe that we find so few instances of retaliation *because* the threat of retaliation is credible. In fact, our evidence is consistent with the mutual fund industry being largely in a mutually supportive equilibrium—at least when it comes to the way it votes. Although Wahal and Wang (2011) find evidence of mutual fund families engaging in competition in the product market, they do so in the expectation of gaining market share. In the case of voting, however, a voting firm's cost–benefit trade-off is heavily skewed in the direction of supporting the target management: the costs of antagonizing a rival can be high, whereas the benefits can be rather indirect and uncertain.

4.4. The Economic Significance of the Own-Industry Voting Effect

We have shown that, all else equal, fund companies support their peer companies' management three percentage points more often than they support the management of other companies. Given that typical support for management is on the order of 90%, is the additional three-percentage-point support economically meaningful?

Table 6. The Probability of Voting with Target Management's Recommendation Within the Mutual Fund Industry

	Votes by all voting firms			Votes by public voting firms	
	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	−9.7227*** (0.0001)	−7.1351*** (0.0001)	−11.2063*** (0.0001)	−0.6274 (0.8982)	1.3138** (0.0179)
Public voting firm (0, 1)	35.5129** (0.0272)		51.1671*** (0.0049)		
Competitive threat		41.6487*** (0.0001)	43.2260*** (0.0001)	43.2953*** (0.0001)	44.4459** (0.0155)
Closeness (0, 1)			−0.4160 (0.1363)	9.5459*** (0.0001)	8.4981*** (0.0001)
Holding stake	0.4168** (0.0126)	0.5338*** (0.0014)	0.5279*** (0.0015)	2.0373*** (0.0001)	1.9190*** (0.0001)
Common information	1.1164*** (0.0050)	0.8173** (0.0254)	0.8071** (0.0275)	0.1427 (0.8208)	1.0660** (0.0458)
ln(*Voting firm's number of funds*)	0.1568 (0.4666)	0.2530 (0.2183)	0.2498 (0.2180)	0.2674 (0.4347)	0.3018 (0.4597)
Target firm's prior year return	0.5957 (0.3326)	0.5110 (0.4142)	0.4257 (0.5038)	5.6066*** (0.0013)	5.2094*** (0.0018)
ln(*Target firm's market value of assets*)	0.1838** (0.0250)	0.1664** (0.0488)	0.1612** (0.0478)	0.2706 (0.1759)	−0.0093 (0.9241)
ISS recommendation = Management (0, 1)	8.2446*** (0.0001)	7.6233*** (0.0001)	7.6482*** (0.0001)	6.7951*** (0.0001)	6.8318*** (0.0001)
Friendly target					3.4937*** (0.0001)
Reciprocal stake					4.1867*** (0.0001)
Common interest (0, 1)					−0.2754 (0.7426)
Social ties (0, 1)					1.7069*** (0.0001)
N	14,554	14,554	14,554	1,677	1,677
Pseudo-R^2	0.7966	0.8052	0.8056	0.9169	0.9265
Regression's *p*-value	0.0001	0.0001	0.0001	0.0001	0.0001

Notes. In this table, we report logistic regressions modeling the probability of investing MFCs voting with target MFC management recommendations during 2004–2013. The dependent variable equals 1 if the majority of funds within a family vote with the target MFC management recommendation and 0 otherwise. *Competitive threat* captures the extent to which the target MFC overlaps with the voting MFC across mutual fund objectives, using the Lipper classification. To calculate this variable, we multiply the proportion of the investing MFC's assets under management in a given objective by the target MFC's market share in that objective, and we sum across objectives that the investing MFC has funds in. *Common information* is the proportion of time that target and voting companies agree when voting on a third party in the past three years. *Friendly target* is the proportion of time that the target company votes with the management recommendation of the voting company in the last voting season. *Reciprocal stake* is the percentage of sole voting authority shares (out of the total number of shares outstanding) of the investing MFC held by the target MFC. *Common interest* (0, 1) equals 1 if the voting company proposes the same proposal in the last voting season. *Social ties* (0, 1) equals 1 if there is any connection identified in BoardEx among board members and senior executives between targets and voting companies. Other variables are self-explanatory or defined elsewhere. All regressions control for (*investing MFC* × *proposal type*) and year fixed effects. We double cluster standard errors by (*investing MFC* × *proposal type*) and report *p*-values in parentheses.

**Statistically significant at the 5% level; ***statistically significant at the 1% level.

To put this quantity in perspective, let us focus on overall shareholder support of management actions. Specifically, we rank firms by the percentage support their management received during our sample period. We find that the 25th percentile garnered 90.28% support; the median firm, 93.32% support; and the 75th percentile, 95.44% support. Thus, losing three-percentage-point support is enough to demote a firm in the top quartile according to its management's popularity with shareholders to the bottom half. Conversely, gaining three-percentage-point support can lift unpopular management—one in the bottom quartile by shareholder support—almost to the middle of the popularity ranking. Thus, given that investor opposition to management proposals is a highly visible gauge of management's perceived quality, a three-percentage-point difference in shareholder support is, indeed, quite significant economically.

A large number of our proposals deal with the election of directors. One reason why this additional three-percentage-point voting "cushion" is important is that it causes directors to make less effort in their monitoring role because they are more likely to be renominated whatever they do. To demonstrate this, in Table 7, panel A, we regress whether a director is renominated at the end of her term on the proportion of votes that a director receives when she is originally elected. We include the standard control variables that are used

Table 7. The Effects of Own-Industry Support

	Model 1	Model 2
Panel A: Director renomination probability		
Dependent variable: *Director renominated* (0, 1)		
Intercept	0.1618***	0.2322
	(0.0010)	(0.6529)
Total ownership by all voting MFCs in the target MFC	0.1745***	
	(0.0001)	
Total ownership by all voting MFCs in the target MFC (fitted)		1.0676***
		(0.0001)
ln(*Target firm's market value of assets*)	−0.0017	−0.0014
	(0.1180)	(0.3496)
Target firm's prior year industry adjusted return	−0.0346***	−0.0132**
	(0.0033)	(0.0350)
Proportion of "for" votes	0.0284**	0.1077***
	(0.0395)	(0.0019)
ln(*Director's age*)	−0.0348***	−0.0333***
	(0.0001)	(0.0001)
ln(*Director's outside board seats*)	0.0229***	0.0241***
	(0.0001)	(0.0001)
Female director (0, 1)	−0.0090	−0.0130***
	(0.2418)	(0.0001)
Independent director (0, 1)	0.0054***	0.0062***
	(0.0076)	(0.0075)
Director ownership (as proportion of shares outstanding)	0.1362***	0.1262***
	(0.0001)	(0.0001)
Classified board (0, 1)	−0.0166**	−0.0168**
	(0.0115)	(0.0118)
Pseudo-R^2	0.5124	0.5612
Regression's p-value	0.0001	0.0001
Panel B: Abnormal returns around voting day		
Dependent variable: *Voting day CAR*(−1, +1)		
Intercept	−0.0499	−0.1016**
	(0.2771)	(0.0313)
Total ownership by all voting MFCs in the target MFC	−0.0557**	
	(0.0249)	
Total ownership by all voting MFCs in the target MFC (fitted)		−0.2401*
		(0.0835)
ln(*Target firm's market value of assets*)	0.0004	0.0006
	(0.5521)	(0.3523)
Target firm's prior year industry adjusted return	−0.0013	−0.0014
	(0.8924)	(0.8756)
Proportion of "for" votes	0.0366*	0.0708***
	(0.0555)	(0.0035)
ln(*Director's age*)	0.0065	0.0084
	(0.4668)	(0.3426)
ln(*Director's outside board seats*)	0.0005*	0.0006*
	(0.0805)	(0.0976)
Female director (0, 1)	0.0027	0.0041
	(0.3465)	(0.1473)
Independent director (0, 1)	0.0002*	0.0018**
	(0.0928)	(0.0458)
Director ownership (as proportion of shares outstanding)	0.0019	0.0029
	(0.5147)	(0.3263)
Adjusted R^2	0.3542	0.3467
Regression's p-value	0.0001	0.0001

Table 7. (Continued)

	Model 1	Model 2
Panel C: CEO turnover probability		
Dependent variable: *CEO turnover* (0, 1)		
Intercept	−0.1474***	−0.4583***
	(0.0001)	(0.0001)
Total ownership by all voting MFCs in the target MFC	−0.0088***	
	(0.0096)	
Total ownership by all voting MFCs in the target MFC (fitted)		−0.0138***
		(0.0008)
ln(*Target firm's market value of assets*)	0.0003*	0.0000
	(0.0884)	(0.5492)
Target firm's prior year industry adjusted return	−0.0043*	−0.0038*
	(0.0533)	(0.0608)
Average proportion of "for" votes across all proposals	−0.0036	−0.0010
	(0.4652)	(0.9259)
CEO age ≥ 65 (0, 1)	0.0087	0.0263***
	(0.7355)	(0.0001)
CEO tenure	−0.0012***	−0.0010***
	(0.0001)	(0.0001)
CEO chairman (0, 1)	−0.0067	−0.0305**
	(0.6076)	(0.0001)
CEO ownership (as proportion of shares outstanding)	−0.0008*	−0.0009*
	(0.0797)	(0.0785)
CEO excess compensation	−0.0063***	−0.0149***
	(0.0001)	(0.0001)
Pseudo-R^2	0.4224	0.4815
Regression's p-value	0.0001	0.0001

in the literature together with year fixed effects. The table shows that directors who receive greater own-industry support as a result of their company's stock being held more by other MFCs are more likely to be nominated for election in the future. This effect is nontrivial. A one-standard-deviation increase in total ownership by other MFCs leads to a 4.36-percentage-point increase in the probability of the same director being renominated when her term ends. Given that the unconditional probability of directors failing to be renominated is 26%, this indicates that own-industry support has a substantial effect on the likelihood that a director is renominated.

Directors who know they are likely to be renominated in the future may exert little effort in their current role. In this case, we would expect the market to react more negatively to the election of directors of MFCs with a higher proportion of their shares held by other MFCs, because these target firms have a larger voting "cushion." To test this, we measure the cumulative abnormal returns (CARs) in the three days surrounding the voting day of all directors. We control for director and firm characteristics and include time fixed effects. Table 7, panel B shows that CARs are significantly more negative as the level of own-industry support rises. This effect is economically material. A one-standard-deviation increase in the total ownership of an MFC by other MFCs leads to a 0.44-percentage-point decrease in the target's CARs on the voting day. Since the mean market value of equity of the sample of MFCs is $14.15 billion, this roughly corresponds to a decrease of $62 million over three days around the voting date.

A key responsibility of directors is to monitor senior management. To examine whether directors monitor senior management less as a result of the own-industry effect, we examine CEO compensation and turnover. We would expect that directors from MFCs that are most supported by other MFCs will monitor CEOs less, which should result in greater CEO compensation and lower CEO turnover.

In Table 7, panel C, we regress whether the CEO departs in the next voting season on the level of own-industry voting support, and we also include in the regression CEO and firm characteristics along with time fixed effects. Our results show that CEO turnover is significantly decreasing in the level of own-industry support. A one-standard-deviation increase in the fraction of a mutual fund firm held by other MFCs leads to a 1.73-percentage-point decrease in CEO turnover probability. This is nontrivial given that the unconditional probability of CEO turnover in our MFC sample is 6.72%.

If directors make less effort, then they will be less constraining on CEO compensation. To investigate this, we measure CEO excess compensation as the residual from the first-stage regression of the log of the CEO's salary and bonus on the log of market cap, the prior

Table 7. (Continued)

	Model 1	Model 2
Panel D: CEO excess compensation		
Dependent variable: *Change in CEO excess compensation*		
Intercept	−3.7703***	−2.5215***
	(0.0001)	(0.0001)
Total ownership by all voting MFCs in the target MFC	0.9028**	
	(0.0411)	
Total ownership by all voting MFCs in the target MFC (fitted)		1.4467**
		(0.0129)
ln(*Target firm's market value of assets*)	0.0125	0.0082
	(0.5193)	(0.6812)
Target firm's prior year industry adjusted return	0.1025	0.1748*
	(0.2714)	(0.0674)
Average proportion of "for" votes across all proposals	0.4510	0.6752
	(0.1927)	(0.2072)
CEO age ≥ 65 (0, 1)	0.1851***	0.3896***
	(0.0099)	(0.0001)
CEO tenure	−0.1056***	−0.1117***
	(0.0001)	(0.0001)
CEO chairman (0, 1)	0.1482**	0.0771*
	(0.0128)	(0.0950)
CEO ownership (as proportion of shares outstanding)	0.4353***	0.4273***
	(0.0001)	(0.0001)
CEO salary and bonus	0.5037***	0.4661***
	(0.0001)	(0.0001)
CEO turnover (0, 1)	0.2278*	0.0897
	(0.0682)	(0.5295)
Compensation proposal (0, 1)	0.0495	0.0064
	(0.6303)	(0.9511)
Adjusted R^2	0.3352	0.3832
Regression's p-value	0.0001	0.0001

Notes. In panel A, we examine the likelihood of a director being renominated for election when her term ends based on the total ownership by all voting MFCs in the target MFC (as a proportion of the target MFC's shares outstanding) using 465 director election proposals voted on at our sample target MFCs. In panel B, we take 465 director election proposals voted on at our sample target MFCs and regress the target firm's cumulative abnormal returns surrounding the voting day on the total ownership by all voting MFCs in the target MFC. Target firm's CARs are estimated over the window of three days around the voting date, calculated as the residual from the market model estimated during the one-year window ending one year prior to the voting date. In panel C, we model the effect of the total ownership by all voting MFCs in the target MFC and the average support for proposals in the current voting season on the likelihood of CEO turnover in the next voting season using a panel of 166 firm-year observations with data available from ExecuComp. The proportion of votes in favor of management is averaged across proposals in the same year for each firm. The dependent variable equals 1 if the CEO departs between the current and the next shareholder meetings. *CEO excess compensation* is estimated as the residual from the first-stage regression of the logarithm of CEO's salary and bonus on the log of market cap, the prior three-year returns, and two-digit SIC industry and year fixed effects, as in Hartzell et al. (2004). In panel D, we model the effect of the total ownership by all voting MFCs in the target MFC and the average support for proposals in the current voting season on the change in CEO excess compensation in the next voting season using a panel of 166 firm-year observations with data available from ExecuComp. Total ownership by all voting MFCs in the target MFC (fitted) is the sum of the fitted changes in ownership stakes by voting MFCs in the target MFC, which are obtained from the first-stage regression in Model 2 of Table B.1. All regressions control for year fixed effects. We cluster standard errors by target MFCs and report p-values in parentheses.

*Statistically significant at the 10% level; **statistically significant at the 5% level; ***statistically significant at the 1% level.

three-year returns, and the two-digit Standard Industrial Classification (SIC) industry and annual fixed effects as in Hartzell et al. (2004). In Table 7, panel D, we regress CEO excess compensation on the level of voting support from other MFCs based on their total ownership of the company concerned. Our results show that CEO excess compensation is significantly higher for firms that are more supported by their peers in the mutual fund industry. A one-standard-deviation increase in total ownership by other MFCs leads to a 7.06-percentage-point increase in CEO excess compensation. We do not find similar effects for removals of classified board and poison pills, or even for firm performance.

It may be argued that if MFCs know a CEO is likely to perform well, they will take a larger stake in the MFC

she works for when that CEO is hired. This could cause both CEO compensation to rise and CEO turnover to fall. To address this endogeneity problem, we instrument for the ownership stake using the same approach used in §4.2, which involves regressing the changes in ownership stake on exogenous Russell index reconstitutions. We then rerun all tests in Table 7 using the fitted ownership stake obtained from the first-stage regression in Model 2 of Table B.1 in our tests, and these are presented in the second column of each panel in Table 7. We continue to find an economically significant effect of own-industry support on the diligence of directors.[27]

To summarize, MFCs that are more supported by other MFCs have directors that are more likely to be nominated in the future. As a result, they need to exert less effort in their roles as directors. We show that CEO turnover is lower and CEO compensation is higher where directors are more supported by other MFCs, consistent with the notion that such directors are less effective monitors. The impact of this is to lower the value of MFCs, and we demonstrate that as own-industry support rises, abnormal returns earned at the time of director elections decrease. This suggests that the own-industry voting effect runs against the fiduciary interests of mutual fund investors.

5. Evidence on Own-Sector Voting by Other Types of Financial Institutions

We used data on mutual fund voting to test whether there is evidence of conflicts of interest in the way MFCs vote on corporate proposals. Our results show that MFCs vote more sympathetically toward other MFCs. This tells us that these companies may be unable to provide effective governance over their own-industry members. If the governance of MFCs is compromised by the fact that much of their equity is held by industry peers, is a similar concern warranted in the case of other investment managers, as well as banks and insurers?

Although data on how these other types of financial institutions vote are generally unavailable, we have three pieces of information that allow us to shed light on whether the self-governance of the financial sector as a whole is compromised. First, for each proposal, we know the proportion of votes that support management. Second, we know if the target is a financial company or not. Third, we can calculate what proportion of the target is held by banks, insurers, and investment managers. These data are available from the 13F holdings database.

With this information, we run the following regression across all proposals in our sample:

$$\begin{aligned} &\textit{Proportion of votes in favor of management}_i \\ &= b_0 + b_1 \textit{Proportion ownership financial}_i \\ &\quad + b_2 \textit{Financial target}_i \\ &\quad + b_3 \textit{Financial target}_i \times \textit{Proportion ownership financial}_i \\ &\quad + b_4 \textit{Confidential voting}_i + b_5 \textit{Social ties}_i \\ &\quad + b_6 \textit{Average distance}_i + \textit{Controls} + \varepsilon. \end{aligned}$$

Following Besley and Preston (2007), we use the log-odds transformation of the proportion of votes—in our case, those in favor of management of company i—as the dependent variable in the regression. *Proportion ownership financial*$_i$ is the proportion of shares of security i that is held by financial companies. *Financial target*$_i$ is a dummy variable that is set to 1 if the target company is a financial company.

The coefficient b_2 in this regression tells us whether the proportion of stock i held by financial companies affects the propensity to vote with management differently if the target is a financial company. If the coefficient b_2 is positively statistically significant, we would interpret it as evidence of clubbiness.

In addition, we include a *confidential voting* dummy variable that is set to 1 if the company being voted on has adopted confidential voting, which means that its management does not have access to shareholder-level voting decisions. If shareholders are worried about retaliation, as is suggested by our previous analysis, then we would expect that they would vote more against management in the case of confidential voting, because in this case there is no chance of retaliation. We did not include confidential voting in our prior mutual fund-level analyses as mutual fund voting, since 2003, is public information, and therefore the issue of confidential voting is not relevant. We use the weighted average number of BoardEx social ties between the target and its institutional investors as an additional determinant of voting behavior and we would expect greater social ties to lead to more voting support. We include ownership-weighted *average distance* between the voting companies and the target as a control variable. The distance between any two companies is based on the distance between the headquarters of the two companies. For non-U.S. companies, distance is measured from the U.S. headquarters of the companies concerned.[28]

We use a number of control variables including the size of the target company and the industry-adjusted return of the target in the previous 12 months. We also include proposal type and time fixed effects. As our observations in this test are at the proposal level, not the vote level, we cluster standard errors by proposal type and year. The results of our regressions are presented in Table 8.

The coefficient on *proportion of shares owned by financial firms* (b_1) is negative and significant, which indicates that financial firms are less supportive of management than are other voting parties. This could be because they have a stricter voting policy. The coefficient on *financial firm target* (b_2) is negative and significant, which indicates that financial firms as a whole

Table 8. Voting Evidence on Other Types of Financial Institutions

	Model 1	Model 2
Intercept	−2.0571***	−1.8527***
	(0.0001)	(0.0001)
Proportion of target's shares owned by financial firms	−0.5741***	−0.7799***
	(0.0001)	(0.0001)
Financial firm target (0, 1)	−0.1576***	−0.4108***
	(0.0020)	(0.0001)
Proportion of target's shares owned by financial firms × *Financial firm target* (0, 1)	0.3904***	0.7154***
	(0.0002)	(0.0001)
Target firm's confidential voting (0, 1)	−0.1204***	−0.1344***
	(0.0001)	(0.0001)
ISS recommends "for" (0, 1)	2.0234***	2.0482***
	(0.0001)	(0.0001)
ln(*Target firm's market value of assets*)	−0.0386***	−0.0438***
	(0.0008)	(0.0006)
Target firm's prior year industry adjusted return	0.0032	−0.0217***
	(0.1664)	(0.0001)
Average distance from target to investors		−0.0267*
		(0.0545)
Average social ties between target and investors		1.2280***
		(0.0001)
Proposal type and year fixed effects	Yes	Yes
N	134,000	98,628
Pseudo-R^2	0.5351	0.5503
Regression's *p*-value	0.0001	0.0001

Notes. This table presents evidence on voting outcomes for financial and nonfinancial target firms. We take all the proposals in our sample and regress the log-odds proportion of votes in favor of management for each stock being voted on the following key independent variables: (i) financial sector holding proportions of the stock; (ii) financial sector dummy variable indicating whether the stock concerned is a financial firm; (iii) interaction between *financial firm target* and *proportion of target's shares owned by financial firms*; and (iv) whether the target firm has confidential voting. We additionally control for the weighted average distance (in thousands of miles) between the target and its institutional investors, as well as the weighted average number of BoardEx social ties between the target and its institutional investors. Both averages are weighted by the market value of shares held in a given target by its institutional investors. The distance between any two companies is based on the distance between the headquarters of the two companies. For non-U.S. companies, distance is measured from the U.S. headquarters of the company concerned. We cluster standard errors by proposal type and year, and we report *p*-values in parentheses.

*Statistically significant at the 10% level; ***statistically significant at the 1% level.

get fewer votes from all parties. Note that this coefficient does not capture how financial companies are voting on other financial companies but instead captures how all parties are voting on all financial companies. What sheds light on how financial companies are voting on other financial companies is the interaction (b_3) between the proportion of shares owned by financial firms in the target and the financial firm target dummy. The positive and significant coefficient on this interaction tells us that whereas financial firms are more severe in their voting than are other voting parties, they are significantly less severe in their voting when it comes to voting on other financial firms.

As expected, when confidential voting is in place, voting parties are less worried about retaliation and therefore are less supportive of management. In addition, we find that firms that have stronger social ties with their shareholding companies find it easier to get their proposals passed. When the physical distance between voting companies and their targets is greater, this is likely to lead to fewer personal interactions, causing the level of voting support for target companies to be lower. This is indeed what we find in Table 8, as the coefficient on the average distance (b_6) between the voting and target companies is significantly negative.

These results together with the earlier results on MFCs tell us that the financial sector as a whole has an own-industry bias when it comes to voting on its own kind. Because financial companies hold a large fraction of other financial companies, own-industry bias may have a substantial detrimental effect on the corporate governance of the financial services sector.

6. Robustness

In this section, we perform a number of tests to examine the robustness of our findings reported in the previous sections.

6.1. Uncontentious Votes

It may be argued that if voting parties see the voting outcome as being a foregone conclusion, this may affect

their level of engagement with the voting process. To investigate this further, we exclude 12,246 votes with a pass rate of more than 95%, and our results continue to hold. Specifically, in Table 6, Model 3, the coefficients for the competitive threat and public voting firm variables are significant at the 5% and 1% levels, respectively. When we drop 13,029 votes with a pass rate of more than 90%, the coefficients for these two variables remain significant at the 1% level.

6.2. Non-Mutual Fund Votes

The way MFCs vote may be affected by their beliefs regarding how other parties will vote. Naturally, we are unable to observe these beliefs. We use the actual way that all other parties voted to proxy for these beliefs under the assumption of rational expectations and include this information as a control variable in our tests. For the cross-industry regression, doing so has the additional advantage that if the corporate governance quality of MFCs is in some way different from that of all other companies, then including how other parties vote will control for this. When we include this variable in both our within-industry and cross-industry tests, we find that this variable is insignificant at conventional levels, and our results remain unaffected. This does not mean that non-mutual funds treat MFCs differently to the way they treat all other companies. Rather, it indicates that the way non-mutual fund shareholders vote does not have a significant bearing on the way MFCs vote.

6.3. Clustered Standard Errors

In all tests presented in Tables 5 and 6, we double cluster our standard errors by voting company and proposal type. This assumes that the errors are correlated across MFCs for the same proposal type and across voting decisions by the same MFC. As a robustness test, we also cluster by proposal, which assumes that the errors are correlated for a specific proposal. For example, if all MFCs are voting on amending an omnibus stock plan for BlackRock, then we assume that the way they vote will be correlated. All results continue to hold if we cluster standard errors by proposal.

6.4. Alternative Matching Procedures

In the cross-industry section of this paper, we match votes by MFCs on other MFCs to votes by MFCs on firms outside the fund industry. These matching votes are votes by the same MFC on the same proposal type but with the target of the vote being a company outside the mutual fund industry with the closest size to the original MFC. To examine how sensitive our results are to the matching procedure used, we also match by holding stake instead of size, and our results are qualitatively similar. The coefficient on the *own industry* variable is 0.3807 with a p-value of 0.0001. We also match along the dimensions of size and holding stake together (we find firms that are within 10% of the size and with the closest holding stake), and our results are also qualitatively similar. The coefficient on the *own industry* variable is 0.4230 with a p-value of 0.0001.

6.5. Cross-Industry Results Using the Entire Sample

Instead of using a matching procedure for our cross-industry tests, we also consider using the entire sample of votes for our analysis. The problem with this, however, is that it is not feasible to run logistic regressions for the full sample because of the large sample size (9,834,758 observations) and the large number of fixed effects (46,037 (investing MFC × proposal type) fixed effects, 69 two-digit SIC industry fixed effects, and 10 year fixed effects). We therefore follow other recent papers on fund voting (Calluzzo and Kedia 2014, Dimmock et al. 2014, Schwarz-Ziv and Wermers 2014) by using a linear model in this setting. When we run tests using ordinary least squares regressions with the same variables and clustering method as used Model 2 of Table 5, panel A, we find that the coefficient on the *own industry* variable is 0.0300 with a p-value of 0.0001, which implies that the marginal effect of the own-industry dummy remains at three percentage points.

7. Conclusions

The recent financial crisis has been blamed in part on the poor governance of the financial sector. The main owners of financial company stocks are other financial institutions, which collectively makes the financial sector responsible for its own governance. Are financial firms able to perform this self-governance function in accordance with their fiduciary duty, or are they swayed by their self-interests? This is the question that we seek to address in this paper. As proxy voting is an important part of the governance process and voting is not observable for other types of financial institutions, we use the testing ground of mutual fund voting to do so.

When we compare how MFCs vote on other MFCs with how they vote on firms from outside their own industry, we find evidence that they tend to favor their own. To understand why this is the case, we focus on what determines how MFCs vote on each other. We find that the fear of retaliation and the level of social ties have an important bearing on their voting behavior.

We demonstrate that one important consequence of greater own-industry support is that directors in MFCs that are more held than other MFCs tend to

monitor senior management less. This director underperformance has marked valuation consequences, as abnormal returns earned at director elections are significantly decreasing in the extent to which MFCs are held by their peers. This suggests that the own-industry effect may be causing fund companies to deviate from their fiduciary duty. Institutional investors are required to make public their policies for dealing with material conflicts of interest they may have with regard to their portfolio firms. Our results imply that the definition of "material conflicts" should include not only business dealings between the voter and the target but also competitive interaction between them.

To extend our findings, we then examine whether financial companies defined more broadly also vote more favorably when it comes to their peers and find it to be so. Overall, our results reveal deficiencies in the financial sector's ability to govern itself. As retaliation/reciprocation appears to be driving these results, this points to the need to require financial firms to adopt confidential voting.

In spite of intense interest in decision making within the financial sector, we are not aware of other research into what amounts to the sector's self-governance. The present paper is a first step in this regard. Although we focus on shareholder voting, governance can, of course, be exercised through a variety of formal and informal channels. We believe that financial firms' uniqueness in that their shares are largely in the hands of peer firms is an intriguing and important point of departure for understanding financial firms' governance.

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Appendix A. List of Target and Investing MFCs in the Sample

To obtain a historical set of listed U.S. companies involved in asset management and related activities, we interrogated the Compustat segment database going back to 1978 for the following primary North American Industry Classification System codes: 523110, 523120, 523920, 523930, 525910, and 525990. We then used the business segment names (SNAME field) to identify segments corresponding, as purely as possible, to asset management. After examining the data, we settled on the following algorithm: A segment was deemed to be in the asset management business if its name

—included the text "fund" or "institutional invest"; or

—included the text "manage," "mangement" (*sic*), "mgmt," or "mgt" together with the text "asset," "invest," "invt," "ivest" (*sic*), or "money"; or

—included the text "invest" and "advi"; and

Table A.1. List of Target MFCs in the Sample

BlackRock, Inc.	Franklin Resources, Inc.	T. Rowe Price Group, Inc.
Calamos Asset Management, Inc.	Janus Capital Group Inc.	Virtus Investment Partners, Inc.
Cohen & Steers, Inc.	Legg Mason, Inc.	Waddell & Reed Financial, Inc.
Epoch Holding Corporation	Neuberger Berman Inc.	

Table A.2. List of Investing MFCs in the Sample

AIM Management Group, Inc.	Legg Mason, Inc.	Summit Investment Partners, Inc.
Allianz Funds	Loomis, Sayles & Co. LP	T. Rowe Price Group, Inc.
American Century Investment Management	Lord Abbett & Co. LLC	TCW Asset Management Co.
Artisan Partners LP	Managers Investment Group LLC	TFS Capital LLC
BAMCO, Inc.	Mason Street Advisors, LLC	TIAA-CREF Asset Management LLC
BB&T Asset Management, Inc.	Massachusetts Financial Services	Thornburg Investment Management

Table A.2. (Continued)

BNY Investment Advisors	Meeder Asset Management, Inc.	Thrivent Investment Management
BlackRock, Inc.	Munder Capital Management	UBS Global Asset Management
Bridges Investment Management	Mutual of America Capital Management	USAA Funds
Bridgeway Capital Management	Nationwide Fund Advisors	VTL Associates, LLC
Burnham Asset Management Corp	Natixis Asset Management Advisors	Value Line, Inc.
Calamos Asset Management, Inc.	Navellier & Associates, Inc.	Vanguard Group, Inc.
Century Capital Management, LLC	Neuberger Berman Inc.	Voyageur Asset Management Inc.
Charles Schwab Investment Management	Nicholas Company, Inc.	WM Funds
Claymore Advisors, LLC	Northeast Management & Research	Wasatch Advisors
Cohen & Steers, Inc.	Northern Trust Global Investment	Wells Capital Management, Inc.
Dalton, Greiner, Hartman, Maher & Co.	Old Mutual Funds	Wells Fargo Funds Management
Davis Advisers	Olstein Capital Management	William Blair Capital Management
Dimensional Fund Advisors, Inc.	OppenheimerFunds, Inc.	Wilshire Associates Inc.
Eaton Vance Management, Inc.	Optique Capital Management, In	Wintergreen Advisers, LLC
Evergreen Investment Management	Pacific Heights Asset Management	
F.L. Putnam Investment Management	Pax World Management Corp	
Fenimore Asset Management, Inc.	Phoenix Investment Partners, LLC	
Fidelity Management	Pioneer Investments	
Fiduciary Asset Management, LLC	PowerShares Capital Management	
Fifth Third Asset Management,	ProFund Advisors LLC	
Franklin Resources, Inc.	ProShare Advisors LLC	
Fred Alger Management, Inc.	Profit Investment Management	
Gardner Lewis Asset Management	Prospector Partners Asset Management	
Gartmore Funds	Putnam Investment Management	
Grantham, Mayo, Van Otterloo	Quantitative Management Associates	
HSBC Asset Management	Rafferty Asset Management, LLC	
Harbor Funds	Reynolds Capital Management	
ING Investment Management Co	RiverSource Investments LLC	
IXIS Asset Management	Robert W. Baird & Co. Inc.	
Intrepid Capital Management Inc.	Rochdale Investment Management	
JPMorgan Asset Management, Inc.	Rodney Square Management Corp	
Janus Capital Group Inc.	Roxbury Capital Management, LLC	
Jennison Associates LLC	Royce & Associates LLC	
Jensen Investment Management	Russell Investment Group	
John Hancock Funds, LLC	Rydex Investments	
Keeley Asset Management Corp	Schroder Investment Management	
Kinetics Asset Management, Inc.	Sit Investment Associates, Inc.	
Kirr, Marbach & Company, LLC	State Street Global Advisors	

Appendix B

Table B.1. First-Stage Model of the Change in Holding Stakes and Ownership Stakes by Institutions

	Model 1	Model 2
Variable	Dependent variable: Δ *holding stake*	Dependent variable: Δ *ownership stake*
Intercept	2.6898***	2.3504
	(0.0001)	(0.2918)
Russell index inclusion of portfolio firm		
Russell $1000_{t-1} \rightarrow$ *Russell* 2000_t $(0,1)$	−0.5990**	5.4519***
	(0.0422)	(0.0003)
Russell $2000_{t-1} \rightarrow$ *No index*$_t$ $(0,1)$	−0.1178	13.4223***
Russell $2000_{t-1} \rightarrow$ *Russell* 1000_t $(0,1)$	0.7777***	−8.7599***
	(0.0036)	(0.0001)
No index$_{t-1} \rightarrow$ *Russell* 2000_t $(0,1)$	−0.1143	−11.7563***
	(0.6853)	(0.0001)
Δ *Ranking in Russell*$_{(t-1,t)}$	−0.0037***	−0.0171***
	(0.0001)	(0.0003)
$[\Delta$ *Ranking in Russell*$_{(t-1,t)}]^2$	−0.0000***	−0.0000***
	(0.0001)	(0.0003)

Table B.1. (Continued)

	Model 1	Model 2
Variable	Dependent variable: Δ *holding stake*	Dependent variable: Δ *ownership stake*
Portfolio firm characteristics		
Size	−0.3848***	−0.4276*
	(0.0001)	(0.0503)
Q	−0.0014**	0.0046***
	(0.0126)	(0.0008)
Industry-adjusted return	0.0138	−0.0015
	(0.1346)	(0.8647)
Industry-adjusted return (lagged one year)	0.0122	−0.0906***
	(0.2533)	(0.0051)
Volatility	0.4033	40.9851***
	(0.5739)	(0.0001)
Liquidity	0.7037***	−12.2783***
	(0.0007)	(0.0009)
Price earnings ratio	0.0005	0.0060**
	(0.2293)	(0.0133)
N	4,443,242	4,443,242
Regression's *p*-value	0.0001	0.0001

Notes. This table reports first-stage regressions of the changes in holding stakes and ownership stakes by institutions upon the Russell index reconstitutions similar to those in Schmidt (2012) and Fich et al. (2015). *Holding stake* is the proportion of the value of the institution's portfolio represented by the portfolio firm's shares. *Ownership stake* is the proportion of sole voting authority shares (of the total number of shares outstanding) of the portfolio firm held by the institution. Both *holding stake* and *ownership stake* are measured at the end of each quarter in year t during 2003–2013 from the 13F database. We multiply the dependent variables by 10,000 for regression reporting purposes in both models. We measure the changes in holding stakes and ownership stakes from the end of the third quarter in year $t-1$ to the third quarter in year t. *Russell* $1000_{t-1} \rightarrow$ *Russell* 2000_t $(0,1)$ equals 1 if the portfolio firm moves from the Russell 1000 to the Russell 2000. *Russell* $2000_{t-1} \rightarrow$ *No index*$_t$ $(0,1)$ equals 1 if the portfolio firm moves out of the Russell 2000 to below the top 3000. *Russell* $2000_{t-1} \rightarrow$ *Russell* 1000_t $(0,1)$ equals 1 if the portfolio firm moves from the Russell 2000 to the Russell 1000. *No index*$_{t-1} \rightarrow$ *Russell* 2000_t $(0,1)$ equals 1 if the portfolio firm moves to the Russell 2000 from below the top 3000. Δ*Ranking in Russell*$_{(t-1,t)}$ is the change in the portfolio firm's ranking in the Russell from time $t-1$ to t. Both regressions control for industry and year fixed effects. Standard errors are clustered by institution. We report p-values in parentheses.

*Statistically significant at the 10% level; **statistically significant at the 5% level; ***statistically significant at the 1% level.

—did not include the text "acquisition," "alternative," "broker," "consolidation," "economic," "elimination," "hedge," "lending," "mortgage," "private equity," "securities," or "wealth."

We then calculated the proportion of aggregate net sales (after excluding any segments with negative net sales) that were due to segments meeting the criteria above. If the proportion averaged more than 0.7 over two consecutive years, the following year the firm entered our sample.

Endnotes

[1] Throughout this paper, we refer to the financial sector as a broad grouping of financial services firms that comprise multiple industries (the mutual fund industry, the banking industry, the insurance industry, etc.).

[2] Consider, for example, the March 31, 2005, reelection of the notoriously combative Lehman chief executive officer (CEO) Richard Fuld to the company's board. Fuld's bid received 87.3% investor support only four years before his being ranked as "the worst CEO of all time" by *Portfolio Magazine* (see Beaudette 2009). Approximately two-thirds of Lehman's stock was held by other financial institutions, the top 10 being Citigroup, State Street, Barclays, Morgan Stanley, Vanguard, AXA, Fisher Investments, MFS Investment Management, Mellon Bank, and Merrill Lynch. Most of these firms and their managers could be expected to have repeated dealings with Lehman and its management. Fuld is on record as saying, "I want to reach in, rip out their heart, and eat it before they die" (Sullivan 2011) about his professional adversaries. Voting at Lehman was not confidential, meaning that Lehman's management could find out which shareholders voted for or against any given proposal.

[3] Of course, the effect of a vote on rivals' valuation need not be a zero-sum game. There can be positive externalities whereby the whole industry benefits from the passage of a proposal. For example, less restrictive executive compensation at one mutual fund company could signal the mutual fund industry's increased ability to attract talented executives from hedge funds and to benefit rival firms as a result. We seek to capture such common interests by checking whether rival firms tabled similar proposals.

[4] In the paper, we interchangeably use the terms "voter," "voting firm," and "investor" to refer to the party that votes, and we refer to the party being voted on as "target firm" or "investee."

[5] Oxforddictionaries.com, s.v. "clubbiness" (http://www.oxforddictionaries.com/us/definition/american_english/clubbiness, accessed December 11, 2014). Clubs, clans, cliques, tribes, and other social groups are a complex nexus of relationships fostered by common interests, goals, backgrounds, beliefs, and so on. If membership in such a group is valued and/or sticky (as it typically is), then fear of retaliation can be as much of a driving force behind ostensibly friendly behavior as the hope of reciprocation, or simple homophily. Our use of the term "clubbiness" encompasses all these driving forces.

[6] For example, the following describes ways in which Aberdeen Asset Management addresses material conflicts of interest in its proxy voting policy: "When a material conflict of interest between an Aberdeen Adviser's interests and its clients' interests appears to exist, the Aberdeen Adviser may choose among the following options to eliminate such conflict: (1) vote in accordance with these Policies and Procedures if it involves little or no discretion; (2) vote as recommended by a third party service if the Aberdeen Adviser utilizes such a service; (3) 'echo vote' or 'mirror vote' the proxies in the same proportion as the votes of other proxy holders that are not Aberdeen clients; (4) if possible, erect information barriers around the person or persons making voting decisions sufficient to insulate the decision from the conflict; (5) if practical, notify affected clients of the conflict of interest and seek a waiver of the conflict; or (6) if agreed upon in writing with the client, forward the proxies to affected clients allowing them to vote their own proxies" (http://www.aberdeen-asset.com/aam.nsf/Canada/proxy, accessed December 11, 2014).

[7] The dollar value of cross holdings can be large, and in our data set, the largest cross holding is $678 million, by BlackRock in Franklin Resources in December 2009.

[8] The Investment Company Act of 1940, Rule 12d-3 specifies that U.S. mutual funds are prohibited from owning more than 5% of other investment companies, defined as firms that derive more than 15% of revenue from securities-related activity.

[9] For example, an article in the *Wall Street Journal* states that "in general, approval rates of 95% or higher are common, and a withheld-votes rate of more than 20% is considered high" (Richmond 2007).

[10] See, for example, the media response to 8% shareholder opposition to Shell's CEO pay proposal (Neate 2013).

[11] The voting company/proposal-type combination fixed effects are statistically significant in most cases. For example, in Model 1 of Table 5, 94% of the fixed effects are significant at the 5% level or below. This confirms the value of including fixed effects in this format in our regressions.

[12] The purpose of this is to make our tests more powerful because non-mutual fund financial companies may also vote more with MFCs as a result of financial companies generally being more supportive of each other. We thank the referee for making this suggestion.

[13] During 2003–2013, we track 5,521 changes related to all firms across industries in our sample due to Russell 1000/2000 reconstitutions as follows: 874 movements from the 1000 to the 2000 index, 760 switches from the 2000 to the 1000 index, 1,672 new additions to the 2000 index, and 2,215 removals from the 2000 index, and we use each of these as $(0, 1)$ variables. The annual Russell 1000/2000 index reconstitutions *directly* affect our mutual fund targets as follows: four movements from the 1000 to the 2000 index, four switches from the 2000 to the 1000 index, two new additions to the 2000 index, and one removal from the 2000 index. Some firms could be indirectly affected by index reconstitutions involving other firms that are held in the same portfolio, even if they are not directly affected by these changes. This happens because the weighting of a firm in the institution's portfolio could be revised as a result of the changes in weighting of nonportfolio firms directly affected by an index reconstitution.

[14] The results of the regressions are consistent with our expectations. More specifically, when a stock drops out from the Russell 1000 index as a result of relatively poor performance, we can expect the numerator of *holding stake* (the value of the holding) to decrease while its denominator (the value of all holdings in the voting company's stock portfolio) is largely unaffected. Thus, the change in the holding stake is expected to be negative, and that is precisely what the slope coefficient in Model 1 (-0.5990, p-value $= 0.0422$) confirms. The ownership stake, on the other hand, measures the proportion of the target company held by the voting company. As Appel et al. (2016) point out, since the dollar amounts indexed to the Russell 1000 and Russell 2000 indices are comparable, institutions will tend to buy a stock moving from the bottom of the pecking order in the Russell 1000 universe to the top in the Russell 2000 one. This is consistent with the positive coefficient we observe in Model 2 (5.5419, p-value $= 0.0003$).

[15] As we discuss in §2.1, fund manager discretion over the voting process depends on whether voting is centralized within the fund management organization. This in turn depends on how complex the organization is, which is a function of the number of funds it manages. It therefore makes sense to control for the voting company's number of funds.

[16] We follow the procedure described in Manski and McFadden (1981) to estimate this marginal effect.

[17] We show that we also get a similar result when we regress the decision to vote with ISS on an own-industry dummy using the same sample of proposals as used in Table 5. The marginal effect of voting with ISS for own industry is 2.2% lower than that for other industries. We do not present these results here for brevity.

[18] We test for the possibility that fitted *holding stake* may have greater explanatory power when interacted with the *own industry* dummy. This may be because mutual fund companies vote more with management when the stakes are higher, especially for own-industry companies. However, when we include this interaction between the fitted holding stake and the *own industry* dummy, we find that it is statistically insignificant (coefficient $= -0.0171$, p-value $= 0.8632$). When we include the interaction between unfitted *holding stake* and *own industry*, we find that it is also statistically insignificant (coefficient $= 0.1221$, p-value $= 0.3313$).

[19] Our measure is inspired by the competitiveness measure used by Wahal and Wang (2011), which, for all stocks held by an incumbent fund, divides the sum of the entrant fund's holdings in these stocks by the fund's total holdings. However, if we were to simply translate the Wahal and Wang measure into our setting, then a voted-on family with a large presence in just one of the objectives that the voting family has a presence in could be considered a significant competitive threat to the voting family even if the importance of that objective to the voting family is minimal. As a numerical example, if the voting company has 5% of its assets in objective A, 15% of its assets in objective B, and 80% of its assets in objective C and the target's market shares in objectives A, B, and C are 3%, 5%, and 10%, respectively, then the competitive threat posed to the voting company by the target is equal to $0.05 \times 0.03 +$ (for objective A), $0.15 \times 0.05 +$ (for objective B) or $0.8 \times 0.1 = 0.089$ (for objective C), representing the target's average market share across the voting company's objectives. One concern is that the *competitive threat* variable is simply a proxy for the sizes of the voting and target companies. However, this is not the case. The correlation between this variable and the size of the target company is 0.08. Using the number of funds managed by the voting company as a measure of its scale, the correlation between the competitive threat and scale of the voting company is -0.06.

[20] For example, Servaes and Tamayo (2014) argue that when a company is targeted by a takeover attempt, its industry peers likewise feel threatened.

[21] The variables *friendly target*, *reciprocal stake*, and *common interest* can only be constructed if the firm doing the voting this period is public and therefore can be voted on.

[22] The voting company/proposal-type combination fixed effects are statistically significant in most cases. For example, in Model 3 of Table 6, 87% of the fixed effects are significant at the 5% level or below. This again confirms the value of including fixed effects in this format in our regressions.

[23] It should be recognized that *competitive threat* is a "threat" variable and that what drives its impact is not actually undertaking the threatened response, but the possibility of doing so. As the competitive strategies suggested are essentially "nuclear options," we would

expect an extremely low frequency of these strategies. Indeed, given the severe effects of such confrontation on the parties involved, it would be surprising if their senior managers, all members of the same closely interlinked professional community, failed to avert it. When we look at the data, we find that this is indeed the case. In fact, whether we phrase this in terms of the threat of retaliation or the expectation of reciprocation is largely a matter of semantics. Rather than considering that firms avoid withdrawing support from a competitor out of fear of retaliation, one can equally well consider that they support competitors out of the hope of reciprocation.

[24] We only use *social ties* when the voting firm is public, because BoardEx's coverage is less comprehensive for private firms. If we include *social ties* in our cross-industry regressions (which also include private voting firms), this variable does not attain statistical significance in any specifications.

[25] We measure social ties as a dummy variable in Table 6 for ease of interpretation. We could instead include social ties as a continuous variable. When we do so, we find that this has little effect on our results. The coefficient on the continuous social ties variable is 0.0448 (p-value = 0.0106).

[26] Six instances of single tit-for-tat behavior include Franklin Resources against BlackRock in 2006, Janus Capital against BlackRock in 2006, BlackRock against T. Rowe Price in 2007 and 2012, BlackRock against Franklin Resources in 2011, and BlackRock against Janus Capital in 2012 after being voted against in the previous year. We also observe six instances of back-to-back tit-for-tat actions: (1) BlackRock voted against T. Rowe Price in 2006 and 2008 while being voted against by T. Rowe Price in 2007, (2) Legg Mason voted against T. Rowe Price in 2006 and 2008 while being voted against by T. Rowe Price in 2007, (3) Legg Mason voted against T. Rowe Price in 2006 and 2008 while being voted against by T. Rowe Price in 2007, (4) Legg Mason voted against BlackRock in 2010 and 2008 while being voted against by T. Rowe Price in 2009, (5) T. Rowe Price voted against Janus Capital in 2013 and 2011 while being voted against by Janus Capital in 2012, and (6) T. Rowe Price voted against Calamos in 2013 and 2011 while being voted against by Calamos in 2012.

[27] Alternatively, we could measure total mutual fund voting support for the target MFC using only the shares that are owned by all voting MFCs in the target MFC and that were voted in support of management in the previous year while still controlling for the proportion of "for" votes. When we use this new variable instead of total ownership by all voting MFCs in the target MFC, the results are qualitatively similar. The coefficients on this key variable in Model 1 of Table 7, panels A, B, C, and D, are 0.1661 (p-value = 0.0001), −0.1010 (p-value = 0.0005), −0.0147 (p-value = 0.0101), and −1.3485 (p-value = 0.0003), respectively.

[28] We also try interacting social ties with the confidential voting dummy. The effect of the interaction of social ties and confidentiality is harder to predict. On the one hand, social ties can lead to the disclosure of voting behavior through informal channels so that formal confidentiality no longer matters, making the interaction effect positive. On the other hand, confidentiality can relieve the greater pressure to support management that is inherent in the presence of social ties, making the interaction effect negative. When we add the interaction effect to the second regression of Table 8, the interaction effect is indeed negative and significant at the 1% level, consistent with the latter explanation.

References

Agrawal A (2012) Corporate governance objectives of labor union shareholders. *Rev. Financial Stud.* 25:187–226.

Appel IR, Gormley TA, Keim DB (2016) Passive investors, not passive owners. *J. Financial Econom.* 121:111–141.

Ashraf R, Jayaraman N, Ryan HE Jr (2012) Do pension-related business ties influence mutual fund proxy voting? Evidence from shareholder proposals on executive compensation. *J. Financial Quant. Anal.* 47:567–588.

Bang J (2010) Tit-for-tat compensation. Working paper, Stockholm School of Economics, Stockholm.

Beaudette M (2009) Fuld tops Portfolio's worst CEO list. *Bankruptcy Beat* (blog), April 23, http://blogs.wsj.com/bankruptcy/2009/04/23/fuld-tops-portfolios-worst-ceo-list/.

Becher DA, Mulherin JH, Walking RA (2012) Sources of gains in corporate mergers: Refined tests from a neglected industry. *J. Financial Quant. Anal.* 47:57–89.

Berglöf E, Perotti E (1994) The governance structure of the Japanese financial keiretsu. *J. Financial Econom.* 36:259–284.

Besley T, Preston I (2007) Electoral bias and policy choice: Theory and evidence. *Quart. J. Econom.* 122:1473–1510.

Bethel JE, Gillan S (2002) The impact of the institutional and regulatory environment on shareholder voting. *Financial Management* 31:29–54.

Bushee B (1998) The influence of institutional investors on myopic R&D investment behavior. *Accounting Rev.* 73:305–333.

Butler AW, Gurun UG (2012) Educational networks, mutual fund voting patterns, and CEO compensation. *Rev. Financial Stud.* 25:2533–2562.

Cai J, Garner JL, Walkling RA (2009) Electing directors. *J. Finance* 64:2389–2421.

Calluzzo P, Kedia S (2014) Mutual fund board connections and proxy voting. Working paper, Rutgers Business School, Piscataway Township, NJ.

Chen S, Ho KW, Ik KH (2005) The wealth effect of new product introductions on industry rivals. *J. Bus.* 78:969–996.

Cremers KJM, Romano R (2011) Institutional investors and proxy voting on compensation plans: The impact of the 2003 mutual fund voting disclosure rule. *Amer. Law Econom. Rev.* 13:220–268.

Cvijanovic D, Dasgupta A, Zachariadis KE (2016) Ties that bind: How business connections affect mutual fund activism. *J. Finance* 71:2933–2966.

Davis GF, Kim EH (2007) Business ties and proxy voting by mutual funds. *J. Financial Econom.* 85:552–570.

Dimmock SG, Gerken WC, Ivković Z, Weisbenner SJ (2013) Locked-in to govern: How the capital gain of a stock holding affects a mutual fund's voting decision. Working paper, University of Illinois at Urbana–Champaign, Champaign.

European Commission (2010) Corporate governance in financial institutions: Lessons to be drawn from the current financial crisis, best practices. Commission Staff Working Document, European Commission, Brussels.

Fama EF, French KR (1997) Industry costs of equity. *J. Financial Econom.* 43:153–193.

Fich EM, Harford J, Tran AL (2015) Motivated monitors: The importance of institutional investors' portfolio weights. *J. Financial Econom.* 118:21–48.

Hall A, Peixe F (2003) A consistent method for the selection of relevant instruments. *Econometric Rev.* 22:269–288.

Hartzell JC, Ofek E, Yermack D (2004) What's in it for me? CEOs whose firms are acquired. *Rev. Financial Stud.* 17:37–61.

Hong H, Kubik J, Stein J (2005) Thy neighbor's portfolio: Word-of-mouth effects in the holdings and trades of money managers. *J. Finance* 60:2801–2824.

Ishii J, Xuan Y (2014) Acquirer-target social ties and merger outcomes. *J. Financial Econom.* 112:344–363.

Kim Y, Lacina M, Park MS (2008) Positive and negative information transfers from management forecasts. *J. Accounting Res.* 46:885–908.

Manski CF, McFadden DL (1981) *Structural Analysis of Discrete Data and Econometric Analysis* (MIT Press, Cambridge, MA).

Massa M, Rehman Z, Vermaelen T (2007) Mimicking repurchases. *J. Financial Econom.* 84:624–666.

Morgan A, Poulsen A, Wolf J, Yang T (2011) Mutual funds as monitors: Evidence from mutual fund voting. *J. Corporate Finance* 17:914–928.

Neate R (2013) Shell suffers embarrassing shareholder rebellion over executive pay. *Guardian* (May 21), http://www.theguardian.com/business/2013/may/21/shell-suffers-embarrassing-shareholder-rebellion.

Richmond R (2007) Yahoo holders send message. *Wall Street Journal* (June 13), http://www.wsj.com/articles/SB118167269875732781.

Rothberg B, Lilien S (2006) Mutual funds and proxy voting: New evidence on corporate governance. *J. Bus. Tech. Law* 1:157–184.

Schmidt C (2012) Shareholder monitoring incentives and corporate policies. Working paper, University of Lausanne, Lausanne, Switzerland.

Schwarz-Ziv M, Wermers R (2014) Do mutual funds have a say on pay? Working paper, University of Maryland, College Park.

Servaes H, Tamayo A (2014) How do industry peers respond to control threats? *Management Sci.* 60:380–399.

Stock J, Watson M (2010) *Introduction to Econometrics*, 3rd ed., Series in Economics (Addison-Wesley, Boston).

Stock J, Yogo M (2005) Testing for weak instruments in linear IV regression. Stock JH, Andrews DWK, eds. *Identification and Inference for Econometrics Models* (Cambridge University Press, New York), 80–108.

Sullivan N (2011) Dick Fuld rip out your heart. *YouTube* video, 1:07. October 28, https://www.youtube.com/watch?v=GZCmWkQuyPc.

Teitelbaum R (2003) For funds, disclosure is hardly in fashion. *New York Times* (January 5), http://www.nytimes.com/2003/01/05/business/mutual-funds-report-for-funds-disclosure-is-hardly-in-fashion.html.

Tonello M, Rabimov S (2010) The 2010 institutional investment report: Trends in asset allocation and portfolio composition. Report R-1468-10-RR, Conference Board, New York.

Wahal S, Wang A (2011) Competition among mutual funds. *J. Financial Econom.* 99:40–59.