

**Are passive investors also passive voters? Evidence from securities
lending by mutual funds**

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Abstract

I study the effect of mutual funds' securities lending activities on their participation in proxy voting using hand-collected fund securities lending data. Consistent with Shleifer and Vishny's (1986) argument that a shareholder's willingness to monitor a firm decreases as the cost of monitoring increases, I find that mutual funds that lend securities are less likely to vote in the shareholder meetings of their portfolio firms. Consistent with a causal inference of the result, the negative effect of security lending on fund voting almost disappears during the 2008 short sale ban period. The negative effect is weaker if a fund holds a larger stake in the stock, especially poorly performing stocks, suggesting that lending funds are more likely to give up securities lending income and recall stocks to vote when the potential gains from voting are greater. This negative effect of securities lending on voting participation is also weaker if other funds in the same fund family are active voters. Although securities lending impedes fund voting on average, I find that it increases fund voting, due to a "lock-in" effect, in a subset of fund families in which funds are restricted from selling upon short-selling signals and vote more actively.

Keywords: Securities lending; proxy voting; corporate governance; mutual funds; short selling

1. Introduction

Mutual funds are one of the most important types of institutional investors that hold significant equity stakes and play a crucial role in corporate governance in the U.S. equity market (over the past decade, they held about a quarter of the outstanding shares of U.S. companies). In addition to active portfolio management, equity mutual funds lend securities in their portfolios to market makers or short sellers to generate additional income. Although mutual funds underperform on average, securities lending by mutual funds generates a seemingly risk-free return, about 2% of the value of the lent securities (Adams, Mansi, and Nishikawa, 2014). Proponents of securities lending by mutual funds argue that the securities lending fees paid by borrowers can improve fund performance. However, reliance on securities lending income may have an unexpected side effect of undermining funds' incentive to improve the corporate governance of firms in their portfolio via proxy voting in annual shareholder meetings.²

Equity lending transfers the voting rights of the on-loan stocks from the lender to the borrower. In other words, the lender is not eligible to vote if the stock is on loan on the voting record date, unless the lender recalls the shares before that date and gives up the associated lending income that may otherwise improve fund performance. Therefore, to the extent that potential lending fees are an opportunity cost for funds to monitor a firm via voting, securities lending can intensify the free-rider problem in firm-level governance. This prediction is in line with Shleifer and Vishny (1986) who model the free-rider problem in shareholder governance and argue that a shareholder's willingness to intervene in corporate governance decreases as the cost of monitoring increases. Although all shareholders are subject to this type of opportunity cost (i.e., forfeited lending fees), the cost is more salient to funds that have already lent the stock out than funds that have not.

² Proxy voting is an important channel through which shareholders communicate with firm management and boards of directors. Protest voting can bring about significant changes in corporate governance and performance. Duan and Jiao (2016) examine mutual fund voting in proxy contests and find that mutual funds tend to vote against management and exit when the vote recommendation of ISS conflicts with management on proposals and the likelihood of voting against management increases, indicating that both voting against management and voting with one's feet are important governance mechanisms.

Further, we generalize this idea to a broader setting: a fund's past securities lending experience in a stock has a long lasting effect, which affects the fund's monitoring decision in the stock and also other investees (i.e., a spillover effect). To make the statement clearer, we classify funds into two groups, i.e., lender funds and non-lender funds, based on whether they lent any stock or not in the prior year. We argue that lender funds learn from their past security lending experience, which enhances their awareness of the opportunity cost when they make future monitoring decisions, even for stocks that are not currently lent out by these funds.³ I posit that securities lending by mutual funds impedes their incentive to exert governance via shareholder voting and predict that lender funds are less likely to vote their shares than non-lender funds, i.e., the free-riding hypothesis.

On the other hand, there is another hypothesis that predicts a positive relation between fund security lending and fund voting participation due to the investment restrictions set by fund families. Evans, Ferreira, and Prado (2017) argue that some funds lend securities because they cannot sell stocks on short-selling signals (i.e., overvaluation) due to investment restrictions set by their fund family. Such investment restrictions are adopted to diversify the fund offerings across multiple styles to attract more investors, and thus they may differ among fund families. Facing a strong short-selling signal, funds that are not allowed to sell the stock are more likely to use their power to punish the firm through voting than funds that can sell the stock (I call this explanation the "lock-in" hypothesis). This investment restriction-induced lock-in hypothesis is consistent with the tax-induced lock-in hypothesis of Dimmock, Gerken, Ivkovic, and Weisbenner (2018), who show that tax-sensitive funds are more likely to vote in the proxy voting of stocks that have appreciated in value since purchase, rather than selling the stock (i.e., the

³ For example, a lender fund (F1) lent one stock (A) in the year t . This recent lending experience may induce F1 to care about the opportunity cost (i.e., anticipated lending fees) when it considers whether to vote for three stocks it holds (A, B, C) in year $t+1$. If F1 is still lending stock A (and hence receiving lending fee from it) in $t+1$, the opportunity cost is the actual lending fee to be forfeited if vote. Assume that F1 does not lend stocks B and C in $t+1$ (due to either lack of borrowers for these stocks or F1's temporary decision to not lend), F1's opportunity costs on these two stocks are the anticipated lending fees (i.e., the expected fees if they lend the stocks). In contrast, consider a non-lender fund (F2) which does not lend any stock in t , F2 will care less about the opportunity costs on stocks B and C compared to F1, because F2 is less likely to actually lend them than F1. Therefore, the anticipated lending fees on B and C are more salient to F1 than F2.

capital gains lock-in effect). Therefore, it is an empirical question whether funds that have engaged in lending are more active or less active in voting.

The governance choices of an existing shareholder (e.g., activism or selling the shares) depend on the investor's size of holding in the firm. As Edmans and Manso (2011) argue, when the shares of a bad-performing stock are diluted among multiple small blockholders, these blockholders are only concerned with maximizing their trading profits (i.e., selling the stock before other investors' sales) rather than intervene to correct the value-destroying firm policies. Lending funds' choice of non-voting potentially allows these funds to receive the stock lending fees, which may offset the losses in the stock due to price declines when other investors sell the stock. Therefore, the incentive of small blockholders as modelled in Edmans and Manso (2011) implies that a lending fund's likelihood of participating in voting of a stock is lower when the fund holds a smaller ownership stake in the stock. In other words, if funds can benefit more from voting (i.e., hold a larger stake in the firm and hence gain more from value creation by affecting firm policies), funds are more likely to recall their shares and exercise their voting power. Therefore, the potential gains from voting can moderate the negative relation between securities lending and voting.

Although this unintended effect of securities lending on firm-level governance is intuitive and appealing, due to the lack of fund-level lending data, there is no empirical evidence on whether mutual funds' governance actions are indeed affected by their securities lending activities. To uncover the potential negative consequences of securities lending on securities lenders, I hand collect a novel dataset of securities lending activity for each mutual fund. The information collected includes the fund-level dollar amount of securities lending fees received and the yearly dollar amount of stocks on loan. For a subset of funds, I also collect fund-stock-level information regarding which stocks are lent out by a fund. I merge the fund securities lending data with mutual fund voting records from Institutional Shareholder Services (ISS) to jointly observe fund lending and voting activities. I focus on mutual funds because investor-level shareholder voting data are only available for mutual funds.

Using the securities lending and voting data for actively managed equity mutual funds in the U.S. from 2005 to 2011, I find a significant and negative relation between lagged fund securities lending and voting participation at the fund-month level.⁴ I measure a fund's voting participation each month by scaling the number of stocks that a fund votes in a month by the total number of to-be-voted (TBV) stocks in the fund's portfolio that month. TBV stocks in a month refer to firms that organize a voting. This measure captures the percentage of portfolio stocks that a fund votes. I show that lending funds (or funds that lend a greater fraction of their assets under management) vote less stocks in their fund portfolios. This implies that lending funds face higher opportunity costs for monitoring (in the form of forfeited lending fees) and refrain from voting more often than non-lender funds, consistent with the free-rider argument of Shleifer and Vishny (1986).

To make sure that the main result (i.e., a negative lending-voting participation relation) is not driven by the characteristics of stocks held by mutual funds, I implement two alternative tests. First, I control for the average characteristics of stocks held by funds in the regression conducted at the fund-month level. I focus on stock characteristics that may affect a fund's decision to participate in the voting. Stocks tend to attract more investors to participate in their proxy voting when the firms are more visible (e.g., larger firms) and are performing badly (i.e., when governance via voting is more needed). Therefore, I control for average firm size and past returns of stocks held by a fund. In case that investors may be also attracted to participate in the voting by other firm characteristics, I also control for investees' average book/market ratio, firm risk, and stock illiquidity.

Second, I compare how funds with different securities lending records differ in their participation of the proxy voting of the same firm. I use whether a fund participates in a particular proxy vote (i.e., annual

⁴ The funds' security lending data is hand-collected from year 2004 to 2010. The lending data starts in 2004 because funds start reporting the information in N-CSR forms since 2004. It stops in 2010 because the regulation environment for securities lending industry dramatically changed due to the 2010 Dodd-Frank and other developments. I use a lead-lag design so the dependent variable, funds' voting participation, ranges from year 2005 to 2011.

shareholder meeting) as the dependent variable.⁵ Following He, Huang, and Zhao (2019), I control for firm-meeting fixed effects so that variations in voting outcomes should be mainly attributable to cross-fund differences (e.g., their securities lending status) among the funds that hold the stock. I restrict the analysis to funds that hold the stock as of the month immediately prior to the voting record date of a shareholder meeting so that I can test whether those funds continue to hold the stock until the record date to vote or transfer their voting rights to other investors (by lending or selling the stock prior to the voting record date). I find a negative effect of securities lending on voting participation in individual portfolio stocks using this fund-meeting-level analysis, confirming that the main findings of the lending-voting participation relation is driven by cross-fund differences rather than by differences in stock characteristics.

To establish the causal inference of the negative relation between fund lending and fund voting, I analyze a SEC regulation that decreases the funds' potential gains from lending securities but does not affect directly funds' voting. In September 2008, the U.S. Securities and Exchange Commission (SEC) temporarily banned most short sales in nearly 1,000 financial stocks and the ban ends on October 8, 2008 (Boehmer, Jones, and Zhang, 2013). The ban offers an ideal setting to test the causal effect of security lending and ensuing lending income on the funds' voting participation. The ban reduces the potential lending income for funds that have already engaged in the lending business during the ban period, but it does not affect funds that do not lend stocks. We implement an interaction test, i.e., interaction funds' past lending income with a dummy variable indicating the ban period (2008 Sep – Oct), to test whether the ban increases fund voting participation for lending funds. We find that a significant and positive coefficient of the interaction term, consistent with a causal inference of the lending income on the fund participation.

⁵ Ideally, one should also use fund-stock-level lending information to construct explanatory variables to capture the timely lending status for each fund and each stock. However, the disclosure of fund-stock level information is not mandatory. Even for funds that disclose such information, they only announce a snapshot of stock-level lending information semi-annually. Due to the short lending period for a typical securities lending agreement (i.e., borrowers return the stocks in a few days), publicly disclosed fund-stock-level lending data are not sufficient to accurately track lending status in a timely manner. For this reason, I use fund-level securities lending data in the main analyses and only use fund-stock-level lending data in one supplementary analysis at the end of this paper.

To show the tradeoff between the potential gains from participating in a proxy vote and securities lending income, I use the fund-firm-meeting-level sample and study the effect of funds' holding in a stock on their voting participation. I find that the negative effect of a fund's securities lending on its decision to participate in voting is weaker when the fund holds a larger stake in the stock, especially poorly performing stocks. The results suggest that funds are more likely to give up securities lending income and recall the stock to exert governance when the potential gains from voting are greater.

Next, I study the cross-sectional variations stemming from the governance environment faced by each fund. As fund families may impose a common guideline for their funds regarding proxy voting, I study the moderating role of a fund family's active governance in the negative relation between funds' securities lending and their voting participation. I measure the governance environment based on the voting activeness of other funds in the same fund family. I find that the negative effect of securities lending on fund voting is weaker if other funds in the same fund family are active voters (i.e., have high voting participation). This suggests that funds in a fund family affect the voting behavior of other funds in the family due to either cross-fund collaboration or common governance practices imposed by the fund family, thus partially offsetting the weight a lending fund places on the opportunity cost related to lending fees. The evidence is also consistent with the mutual funds' mimicking behavior when they decide how to vote in proxy voting as documented by Matvos and Ostrovsky (2010).

Finally, to explore the heterogeneity of the lending-voting relation across fund families, I implement a fund-meeting-level analysis with subsamples of funds affiliated with the 12 largest fund families (e.g., Fidelity, DFA, Vanguard, Putnam, Russell, J.P. Morgan, etc.). I document significant heterogeneity in the lending-voting relation among fund families. For example, among these 12 fund families, five exhibit a positive and significant lending-voting relation, three exhibit a negative and significant lending-voting relation, and four exhibit an insignificant lending-voting relation. The positive lending-voting relation for fund families, such as Fidelity and Vanguard, indicates that some fund families implement lending/voting policies differently than others.

I analyze this lock-in effect with a subsample of two representative fund families with supplementary fund-stock-level lending data. The lock-in effect should be best examined with fund-stock-level lending and voting data. To identify the fund lending information of each stock for each fund, I hand collect the identities of stocks that are reported as on loan from the annual and semi-annual fund shareholder (N-CSR and N-CSRS) reports for funds affiliated with Fidelity and Vanguard. I choose these two fund families because they are representative families that exhibit a positive and significant lending-voting relation estimated based on lending information at the fund level. Based on fund-stock-level information, I find a positive and significant lending-voting relation when comparing lent and non-lent stocks in the same fund for a subsample of Fidelity and Vanguard funds. This result suggests that in some fund families, the lock-in effect indeed dominates the opportunity cost of monitoring hypothesis and leads to a positive lending-voting relation. Overall, although securities lending impedes fund voting in general, I find that it increases voting in a few fund families because funds cannot be sold upon a short-selling signal due to investment restrictions set by the fund families.

The contributions of this paper are twofold. First, this paper adds to the literature by uncovering an unintended consequence of fund securities lending on governance via proxy voting. This paper provides fresh supporting evidence for Shleifer and Vishny (1986)'s free-rider problem in shareholder governance, showing that a lending fund's willingness to intervene (via participating in proxy voting) is lower because they do not want to bear the monitoring cost (i.e., forfeited lending fees). The findings of this paper enrich the understanding of mutual funds' role in shareholder monitoring being compromised by funds' business connections with the company (Davis and Kim, 2007; Cvijanovic, Dasgupta, and Zachariadis, 2016) or personal connections between fund managers and company executives (Butler and Gurun, 2012). Given the popularity of securities lending among mutual funds (i.e., around half of active equity funds participate in securities lending), this paper provides insights for policy makers when they consider regulations regarding securities lending and shareholder voting.

Second, this paper provides new evidence for the debate related to the mechanism through which securities lending affects firm-level governance: whether the trading of voting rights is motivated by

asymmetric voter preferences or asymmetric information. Two related studies (Christoffersen et al., 2007; Aggarwal, Saffi, and Sturgess 2015) use aggregated lending information at the stock level and are unable to consider voter heterogeneity.⁶ However, due to a lack of fund-level securities lending data, these questions cannot be properly investigated and I contribute to the literature by analyzing the determinants of each fund's participation in its investees' proxy voting. The empirical results of this paper support the view that asymmetric voter preferences are the cause of vote trading.

The rest of this paper proceeds as follows. Section 2 reviews the literature. Section 3 provides background information on the securities lending market and develops the hypotheses. Section 4 describes the data (about proxy voting, securities lending, and other fund-level attributes) and presents the empirical results. Section 5 concludes the paper.

2. Literature review

An important channel through which mutual funds monitor firms is shareholder voting (Cuñat, Gine, and Guadalupe, 2012; Fos, 2015; Malenko and Shen, 2016). The shareholder voting process is an effective mechanism for shareholder activism in U.S. firms, as managers and directors respond to dissenting voting. For example, Cai, Garner, and Walking (2009) find that fewer vote support leads to lower CEO compensation and a higher probability of removing poison pills, classified boards, and CEOs. Fischer, Gramlich, Miller and White (2009) find that firms with low vote approval in uncontested director elections are more likely to experience CEO turnover, greater board turnover, lower CEO compensation. Ertimur et al. (2012) find that votes withheld are higher for directors at option backdating (BD) companies than for those at non-BD companies. Fos and Tsoutsoura (2014) show that proxy contests

⁶ Prior theoretical studies have debated the mechanism through which shareholder voting affects firm governance (Maug and Yilmaz, 2002; Levit and Malenko, 2011; Grossman and Hart, 1988; Harris and Raviv, 1988). Empirical evidence related to this discussion is mixed. For example, Aggarwal, Saffi, and Sturgess (2015) find that the supply of lendable shares decreases and the price of voting rights increases on voting record dates, concluding that investors' preferences motivate vote trading—investors with a particular preference for a proposal restrict the lendable supply to exercise their voting rights. In contrast, Christoffersen, Geczy, Musto, and Reed (2007) find that the volume of vote trading increases around voting record dates, whereas the price of voting rights remains unchanged. They conclude that asymmetric information motivates vote trading—less informed voters offer their votes to more informed voters to obtain the optimal outcome on a particular proposal.

have a significant adverse effect on the careers of incumbent directors by decreasing the number of their directorships in both targeted and non-targeted companies. Fos (2016) also finds that target firms of proxy contests experience poor stock performance and increases in management entrenchment and that the shareholders of target firms benefit from proxy contests. Ertimur, Ferri and Oesch (2018) show that firms often respond to an adverse vote by explicitly addressing the underlying concern. Fos, Li, and Tsoutsoura (2018) find that the CEO turnover-performance sensitivity is higher when directors of a board are closer to their next elections. Aggarwal, Dahiya and Prabhala (2019) find that directors receiving a lower level of shareholder voting support are more likely to depart boards and those who do not leave are moved to less prominent positions on boards. Chen and Guary (2020) find that the percentage of “for” votes that the average busy director receives is lower than that of non-busy directors, indicating lower shareholder satisfaction with busy directors.

Shleifer and Vishny (1986) model a free-rider problem in shareholder governance and show that a shareholder’s willingness to intervene decreases with increased monitoring cost. Securities lending intensifies the free-rider problem in firm-level governance because it increases the monitoring cost for mutual funds that would otherwise lend their stocks around the voting record date and earn lending income. Therefore, this “monitoring cost” hypothesis suggests that mutual funds that lend securities should be less active in shareholder voting than mutual funds that do not lend securities. There are two competing views regarding the role of shareholder votes in the literature that help to develop our cross-sectional analyses.

The first view posits that shareholder votes aggregate voter preferences (Grossman and Hart, 1988; Harris and Raviv, 1988). Under this view, voters have the same information about a particular vote but have different preferences regarding the vote’s outcome. Thus, to the extent that votes aggregate preferences (e.g., funds with a large economic interest in the firm have a stronger desire to vote than other funds), I expect that mutual funds view voting rights as more important than securities lending income if their preference differs from that of other voters. Aggarwal, Saffi, and Sturgess (2015) provide supportive empirical evidence for the preference aggregation hypothesis, showing that aggregated lendable shares

decrease and lending fees increase around voting record dates. The preference aggregation hypothesis implies that securities lending by mutual funds does not affect a fund's voting because funds recall stocks prior to a voting record date to exercise their voting rights (i.e., these funds only lend securities in non-voting periods). While there may be multiple reasons to explain why some funds prefer to vote, rather than selling shares or remaining inattentive to voting, the size of funds' equity stake in the firm is one possible answer. As Edmans and Manso (2011) argue, when the shares of a bad-performing stock are diluted among multiple small blockholders, these blockholders are only concerned with maximizing their trading profits (i.e., selling the stock before other investors' sales) rather than intervene to correct the value-destroying firm policies (e.g., participate in voting to voice their opinions).

The second view posits that shareholder votes aggregate voter information (Maug and Yilmaz, 2002; Levit and Malenko, 2011). This hypothesis implies that voters have the same preference with respect to a particular vote but have different information regarding the consequences of the vote. More informed voters can better judge how to vote on a particular proposal to maximize firm value. As such, it is optimal for all voters to transfer votes from less informed voters to more informed voters. Christoffersen, Geczy, Musto, and Reed (2007) provide supportive empirical evidence for this hypothesis, showing that aggregated stock-level vote trading volume increases but lending fees do not change around voting record dates. In this context, when mutual funds do not provide information about a proposal and are less informed of the consequences of the vote, they are better off transferring their voting rights to more informed voters through securities lending. Therefore, the information aggregation hypothesis predicts that securities lending by mutual funds reduces the funds' likelihood of voting.

These mixed results regarding the role of shareholder votes in the literature are conducted at the stock level without considering the heterogeneity of individual voters (Aggarwal, Saffi, and Sturgess, 2015; Christoffersen, Geczy, Musto, and Reed, 2007). In this study, I re-visit these competing hypotheses—the information aggregation and preference aggregation hypotheses—with a novel dataset that allows me to identify voters who are also lenders of stocks.

As an important type of institutional investors, mutual funds are required to vote their shares in portfolio companies in the best interests of the funds. Some mutual funds invest considerable resources in examining firm-level governance and vote accordingly (Iliev and Lowry, 2014; Duan and Jiao, 2016). However, prior studies have documented that mutual funds' voting decisions might be biased by factors that compromise the effect of shareholder monitoring, such as funds' business connections with the company (Davis and Kim, 2007; Cvijanovic, Dasgupta, and Zachariadis, 2016) and personal connections between fund managers and company executives (Butler and Gurun, 2012). Li and Schwartz-Ziv (2020) show that mutual fund shareholders are supportive of overlapping directors who serve simultaneously on a corporate board and a mutual fund board.

In this paper, I argue that funds' reliance on securities lending may harm the effectiveness of shareholder voting by mutual funds. Different from prior studies that focus on a fund's decision to vote for or against a particular proposal, I study a fund's decision of whether to participate in the vote.

3. Background of the securities lending market and hypotheses development

Securities lending refers to the practice whereby securities are temporarily transferred by one party (the lender) to another (the borrower). The borrower is obliged to return the securities to the lender, either on demand or at the end of an agreed term. For the period of the loan, the loan is secured by acceptable assets delivered by the borrower to the lender as collateral, usually at around 102%~105% of the value of the lent securities. The collateral can be cash or other securities. If borrowers are unable to return the borrowed securities, the lender can seize the collateral. Valuation of securities borrowed and collateral deposited are marked-to-market every day and therefore lenders are protected from counterparty risk (i.e., the solvency risk of borrowers) and valuation risk (i.e., variations in the value of the securities lent and collateral received).

The low-risk nature of the securities lending business has attracted attention from institutional investors that do not have any immediate plan to trade their stocks. Adams, Mansi, and Nishikawa (2014) find that 70% of index mutual funds in the U.S. lend securities and that these funds receive around 1%~2%

annualized return on the lent securities. Almost half of active equity mutual funds also engage in securities lending (refer to Figure 1), according to estimations using my hand-collected data. In this project, I focus on active mutual funds because index funds do not control their stock selections and therefore have different objectives from active mutual funds.

The almost risk-free income from securities lending contributes to a fund's overall performance. However, engaging in securities lending may also restrain mutual funds' participation in shareholder voting. Equity lending transfers voting rights to the borrower, and hence the lender cannot vote shares that are on loan on a voting record date. Funds must recall lent stocks before a voting date to participate in shareholder voting, thereby giving up returns on securities lending in the period around the vote. Moreover, funds' recall of securities might also reduce their potential securities lending income in the future because borrowers tend to borrow from lenders with a lower likelihood of recalling stocks. Taken together, funds that engage in more securities lending face larger opportunity costs to participate in shareholder voting, and therefore securities lending might harm the effectiveness of governance over portfolio firms by mutual funds that lend securities.

The literature documents that securities lending by institutional investors can affect the supply of lendable shares in the market (Prado, Saffi, and Sturgess, 2016). However, to the best of my knowledge, no studies provide evidence at the individual fund level showing how funds make the tradeoff between securities lending income and voting on proposals.

I analyze whether securities lending income impedes mutual funds' incentive to exert governance via shareholder voting. The free-rider problem in shareholder governance featured by Shleifer and Vishny (1986) suggests that a shareholder's willingness to intervene decreases as the cost of monitoring increases. In that respect, securities lending increases the cost of monitoring for mutual funds that would otherwise lend their stocks around the voting record date and earn lending income. Therefore, the monitoring cost hypothesis suggests that mutual funds that lend securities should be less active in shareholder voting than mutual funds that do not lend securities. This discussion leads to the first hypothesis.

Hypothesis 1: Mutual funds that lend securities are less likely to participate in shareholder voting than funds that do not lend securities.

I study the cross-sectional differences in the negative effect of securities lending on funds' voting due to the potential gains from proxy voting. Edmans and Manso (2011) show that, when the shares of a bad-performing stock are diluted among multiple small blockholders, these blockholders are only concerned with maximizing their trading profits (i.e., selling the stock before other investors' sales) rather than intervene to correct the value-destroying firm policies. Therefore, the governance choices of an existing shareholder (e.g., participate in voting to influence firm policy or selling the shares) depend on the investor's size of holding in the firm. In particular, the profit-maximizing incentive of small blockholders in Edmans and Manso (2011) implies that a lending fund's likelihood of participating in voting of a stock should be lower (higher) when the fund holds a smaller (larger) ownership stake in the stock.

Therefore, the potential gains from voting can moderate the negative relation between securities lending and voting. I use a fund's economic stake in a stock and the relative past performance of the stock as a proxy for the potential gains from voting: the gains are greater when a fund holds a significant stake in the stock and hence gain more from value creation by affecting firm policies, especially for poorly performing stocks. I posit that voting on the proposals of firms with worse past performance can create greater value for voters. I formalize the above discussion with the following hypothesis:

Hypothesis 2: The negative effect of securities lending on voting by funds is weaker when the fund holds a significant stake in the stock, especially poorly performing stocks.

As fund families may impose a common guideline for their funds regarding proxy voting and families differ in how active they are in proxy voting, I study the moderating role of a fund family's active governance in the negative relation between funds' securities lending and voting. I use a fund family's active governance as a proxy for the likelihood that a fund's preference for the outcome of a vote differs from that of other passive voters. The preference aggregation hypothesis (as introduced in the literature review) implies that securities lending should have a weaker effect on funds' incentive to vote if the fund family has a stronger preference to influence firm-level governance. However, the information

aggregation hypothesis does not provide specific predictions regarding the coefficient of the moderating role of a fund family's preference for governance. I formalize the discussion with the following hypothesis:

Hypothesis 3: A fund family's active exercise of influence on firm-level governance weakens the negative effect of funds' securities lending on their incentive to vote.

4. Empirical results

4.1 Data and statistics

4.1.1 Mutual fund voting data

I obtain funds' voting records from ISS, which collects information from Form N-PX that is submitted by mutual funds to the SEC. The voting information includes how each fund votes on each proposal, i.e., "for," "against," "abstain," or "withhold." In addition, I obtain mutual funds' holdings from Thomson Reuters S12 data and other fund variables from the CRSP mutual funds dataset. I manually match the fund records in the ISS dataset to the mutual funds in the Thomson Reuters S12 data by fund family name and fund name.

4.1.2 Mutual fund securities lending data

I hand collect mutual funds' securities lending information from Form N-CSR, which provides valuations of all securities that each fund lent during the reporting period from 2004 to 2010. The fund lending data starts in 2004 because funds have been required to report securities lending on Form N-CSR since 2004, and the fund lending data ends in 2010 because the regulation environment for securities lending industry dramatically changed due to the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act. The Act affects both short sellers and lenders of securities (i.e., the supply side and demand side for shares in the securities lending market). For example, Goodwin Procter LLP (a financial

service provider) summarized the major impacts of the 2010 Dodd-Frank Act on the securities lending industry as follows,⁷

“(page 63) The Act directs the SEC to adopt rules providing for at least monthly public disclosure of short sales by institutional investment managers under Section 13(f) of the 1934 Act. The Act also makes unlawful a “manipulative short sale of any security” and directs the SEC to issue rules to ensure the availability of enforcement options and remedies for violations of this prohibition. (Section 929X.)”

“(page 63) The Act creates a requirement that each broker-dealer provide its customers notice that they may elect not to allow their fully paid securities to be used in short sales. A broker-dealer that uses a customer’s securities in a short sale must provide notice to the customer that the broker-dealer may receive compensation in connection with lending the customer’s securities. (Section 4929X). The Act gives the SEC express rulemaking authority regarding securities loans and requires it no later than July 21, 2012 to issue rules designed to increase the transparency of information available to broker-dealers and investors with respect to securities loans. (Section 984.)”

Therefore, to ensure that the conclusion is not affected by the regime change in the regulation of securities lending industry, I focus on funds’ lending over 2004 to 2010. Since I use a lead-lag design using lagged one-year funds’ lending status to predict their voting behavior in the next year, the dependent variable, funds’ voting participation, ranges from year 2005 to 2011. A few funds also disclose their lending information at the individual stock level. I also collect fund-stock level securities lending information for funds in two fund families (Fidelity and Vanguard) for a subsample analysis.

4.1.3 Construction of main variables and statistics

I focus on active mutual funds because the objectives of index funds are different from those of active mutual funds. From CRSP, I obtain data on fund expenses, fund total net assets, fund classes, fund

⁷ Quoted from the article, “SPECIAL EDITION – IN-DEPTH ANALYSIS: The Dodd-Frank Wall Street Reform and Consumer Protection Act” by Goodwin Procter LLP on July 28, 2010.

turnover, fund inflows, and fund family. I also extract stock price and return information from CRSP, financial accounting information from Compustat, and financial analyst information from I/B/E/S.

Voting Participation Ratio $_{f,m}$ is the number of stocks a fund (f) votes in a month (m) scaled by the number of TBV stocks in the fund's portfolio in the same month (i.e., it is the fraction of TBV stocks voted by a fund in a month). TBV stocks in a month (m) refers to stocks that have a vote record date in month m and are held by the fund as of the end of the prior month (i.e., $m-1$). I use one-month lagged portfolio holding information from the Thomson Reuters S12 data to identify TBV stocks in each month (as fund holdings are reported quarterly, I interpolate reported holdings in two consecutive periods to estimate holdings in each month). I use actual fund voting records from ISS to calculate the number of stocks a fund votes in a month; *Dummy(Vote_meet)* is an indicator that equals one if a fund that reports holding a stock as of $m-1$ also voted on proposals up for a vote in a meeting with a vote record date in month m . I treat a fund that voted on any proposal in the meeting as having voted in the meeting; *Lender* is an indicator that equals one if a fund reported lending income in the most recent annual certified shareholder report (N-CSR) prior to the record date of a meeting for a fund that holds the stock prior to that record date (i.e., an N-CSR with a report period falling in the twelve-month period ending in the month prior to the record date month of the meeting) and zero otherwise; *LendFrac*(%) is the dollar value of shares on loan in the most recent N-CSR of a lender fund scaled by the fund's end-of-year total assets under management, as a percentage.

I construct a few control variables based on the CRSP data, ISS voting data, and Thomson Reuter S12 holdings data. *TNA* is a fund's net asset value; *Family TNA* is the natural logarithm of the fund family's net asset value; *Fund alpha(monthly)* is the Fama-French-Carhart four-factor abnormal return of the fund one month prior to the record date; *Fund Age(month)* is the number of months since the inception of the fund's oldest share class; *Expenses* is the fund's expense ratio; and *Turnover* is the portfolio turnover rate of the fund. *Size Score* is the weighted average of the market capitalization quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$; *B/M Score* is the weighted average of the book-to-market quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$; *Mom Score* is the weighted

average of the 12-month return quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$; *Beta Score* is the weighted average of the beta quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$; *Iliq Score* is the weighted average of the illiquidity quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$. The variables *# of prop in a meeting* and *# of contentious prop in a meeting* refer to the number of all proposals and number of contentious proposals up for a vote in a meeting, respectively. “Contentious proposals” refers to proposals for which ISS’s recommendation is the opposite of the recommendation by management.

The summary statistics are reported in Table 1. Panel A reports the statistics at the fund-month level with 64,429 observations. The average of *Voting Participation Ratio* is 66%, suggesting that funds choose to sell or lend 34% of their portfolio stocks that have a vote in a given month. Mutual funds that report positive lending income prior to the vote record date account for 58% of the fund-month observations.

Table 1 of Panel B reports the statistics at the fund-meeting level for all portfolio stocks that have a vote. A firm normally has one meeting (i.e., annual meeting) per year, but in a few cases, firms have both special meetings and annual meetings in a year. *Dummy(Vote_meet)*, in Panel B, is an indicator that equals one if a fund that holds a stock as of $m-1$ also has voting records for proposals up for a vote in a shareholder meeting with a vote record date in month m . I treat a fund that votes on any proposal in the meeting as a voting fund for that meeting. The mean of *Dummy(Vote_meet)* is 71%.

Table 2 presents a univariate comparison of fund characteristics for the fund-month observations for lenders and non-lenders. Lender funds have a lower value for *Voting Participation Ratio* than non-lenders, and the difference is 1.5% (t-value of 4.46). The lender observations are associated with more stocks to be voted, less assets under management, larger fund families, older funds, lower expense ratios, and lower fund turnover (trade less). In addition, I report the characteristics of the stocks held by a fund and find that lenders tend to hold stocks with higher book-to-market ratios, better past returns, and higher beta values.

4.2 Baseline results

4.2.1 The effect of funds' securities lending on funds' vote participation - A fund-month level analysis

To test Hypothesis 1, I conduct an analysis at the fund-month level and another analysis at the fund-stock level. The sample covers all active U.S. equity funds from 2005 through 2011 and is restricted to fund-month observations with at least one TBV stock in a fund's portfolio. I exclude index funds.

I estimate the effect of securities lending on funds' voting participation. I estimate the following OLS regression for mutual fund f in month m :

$$\text{Voting Part. Ratio}_{f,m} = \alpha_{ft} + \beta * \text{Lender(or LendFrac)}_{f,m-1} + \text{Controls} + \varepsilon_{fm}, \quad (1)$$

where the dependent variable is *Voting Participation Ratio*, the number of stocks a fund votes in month m scaled by the number of TBV stocks in the fund's portfolio that month (i.e., it is the fraction of TBV stocks voted by a fund in a month). TBV stocks in month m refer to the fund's portfolio stocks with a vote record date in month m . I identify a fund's portfolio stocks in a month based on the most recent quarterly fund holding information reported prior to that month from the Thomson Reuters S12 data. I use fund voting records from ISS to calculate the number of TBV stocks that a fund votes in a month. *Lender* is an indicator that equals one if a fund reported lending income in the most recent annual certified shareholder report (N-CSR) prior to month m and zero otherwise; *LendFrac*(%) is the total dollar value of shares on loan in the most recent N-CSR filing of a lender fund scaled by the end-of-year assets under management of the fund, as a percentage. *Controls* refers to a set of fund-level control variables including fund net assets, fund turnover, fund expenses, fund inflows, and fund performance. In Panel A (B), I present the results without (with) controlling for the characteristics of portfolio stocks. The unit of analysis is a fund-month observation.

The results for the effect of fund lending activities on subsequent aggregated fund voting are reported in Table 3. In panel A, I find a significant negative relation between fund securities lending and a fund's voting. The coefficient of *Lender* is -0.039 ($t=-3.38$) in column 1, suggesting that lending funds participate in 3.9 percent more of firm voting than non-lending funds. The economic magnitude is significant compared to the mean of the average participation ratio (66 percent in Table 1). I control for fund style fixed effects in columns 1 and 2, fund family fixed effects in columns 3 and 4, and fund fixed

effects in columns 5 and 6 and find strong results in all specifications. Therefore, the results are unlikely to be driven by differences in fund category, or time-invariant omitted variables at the fund family-level or the fund-level. In fact, when we control for fund fixed effect, the economic magnitude increases to 5.1% in column 6 ($t=-3.57$). This negative lending-voting participation relation indicates that lenders (or funds that lend more) face higher opportunity costs to participate in voting (in the form of losing current and future lending income) than non-lender funds, consistent with the monitoring cost argument of Shleifer and Vishny (1986).

Regarding the fund-level control variables, we find that funds participate in more voting when there are more investees to be voted, when funds are affiliated with a larger fund family, when fund performance is better, and when the funds trade less frequently (i.e., a lower fund turnover). The results suggest that funds' governance efforts are diluted when there are too many stocks to vote, and larger fund families encourage a higher funds' voting participation. Good performing funds spend more efforts in the governance issues of their investees since poor-performance funds may place a higher priority on boosting short-term trading profits. Funds trading less frequently have more time to analyze the voting details and have a higher voting participation than high-frequency funds.

In panel B of Table 3, we control for average characteristics of stocks held by a fund. The main result still holds, the coefficient of lender is -0.037 ($t=-3.27$) in column 1. In addition, we find that investees' past returns and risk affect funds' voting decision. E.g., funds have a higher voting participation when the stocks held in their portfolio are performing poorly, consistent with a stronger necessity to exert governance power for bad-performing stocks. The funds' voting participation is lower when their investees have a higher risk (beta), suggesting that it is less worthy to participate in the voting of the stock that is too risky. Other stock characteristics (firm size, B/M ratio, illiquidity) do not play a significant role.

4.2.2 The effect of funds' securities lending on funds' vote participation - A fund-firm-meeting level analysis

To further show that difference in funds' securities lending status, rather than stock-level characteristics, drives our main results, I implement a test to compare how lending and non-lending funds differ in their voting participation in the same stock. I confirm the main finding of a negative lending-voting relation with a fund-firm-meeting level analysis. I restrict the analysis to funds that hold a stock as of the month immediately prior to a vote record date. These funds can either continue to hold the stock until the record date to vote or transfer their voting rights to others (by lending or selling the stock prior to the vote record date). I use voting records from ISS to assess whether a fund participates in a particular proxy vote (i.e., shareholder meeting) or not.

To focus on cross-fund differences in voting for a particular meeting, I control for meeting fixed effects so that variations in the voting outcome should be mainly attributable to cross-fund differences (e.g., securities lending status). I estimate the following regression for fund-firm-meeting observations comprised of fund f and stock i (the firm's annual meeting is held in month m):

$$D_Vote_{f,i,m} = \alpha_{ft} + b1 * Lender(or LendFrac)_{fm-1} + b2 * PosHeld_{f,im-1} + Firm Meeting FE_{i,m} + Controls + \varepsilon_{f,i,m}, \quad (2)$$

where $D_Vote_{f,i,m}$ is a dummy variable that equals one if fund f votes in meeting m of stock i and zero otherwise. I control for the fund's holding in the stock using the latest holding data prior to the record date of the annual shareholder meeting. $PosHeld$ is the dollar value of a fund's holdings in a firm scaled by the fund's total assets under management. In addition, I keep the fund-level control variables used in the previous analysis.

Table 4 presents the empirical results. Similar to Aggarwal, Saffi, and Sturgess (2015), I present OLS estimations to ensure that distributional assumptions do not unduly affect the results (Angrist and Pischke, 2009). I find a significant and negative relation between fund-level securities lending and a fund's voting in a particular meeting. The coefficient of $Lender$ is $-0.057(t=-38)$ in first column, indicating that lending funds' likelihood of participate in the voting of a stock is 5.7 percent higher than that of non-lending funds.

The results are qualitatively similar if I use logit estimations. I control for the firm-meeting fixed effects in all specifications. In addition, I control for fund style fixed effects in columns 1 and 2, fund family fixed effects in columns 3 and 4, and fund fixed effects in columns 5 and 6 and find strong results in all specifications.

Regarding the control variables, we find that a fund is more likely to vote (rather than sell the stock or being inactive in voting) when the fund has a larger position in the stock, consistent with a higher ownership increases the investors' incentive to govern the firm. For the coefficient of fund-level controls, we continue to find that funds are more likely to participate in voting for funds with a smaller asset under management, affiliated with a larger fund family, good-performing funds, less actively trading funds. In addition, we also find that younger funds, low expense funds, and funds receiving more capital inflows are more likely to vote in a stock.

4.2.3 The causal effect of security lending on voting – The 2008 short sale ban test.

To establish the causal inference of the negative relation between fund lending and fund voting, I analyze a SEC regulation that decreases the funds' potential gains from lending securities but does not affect directly funds' voting. In September 2008, the U.S. Securities and Exchange Commission (SEC) temporarily banned most short sales in nearly 1,000 financial stocks and the ban ends on October 8, 2008 (Boehmer, Jones, and Zhang, 2013). The ban offers an ideal setting to test the causal effect of security lending and ensuing lending income on the funds' voting participation. The ban reduces the lending income for funds that have already engaged in the lending business during the ban period, but it does not affect funds that do not lend stocks. While we can't identify which stocks are lent out by the lending fund prior to the ban, we use past lending size (i.e., total assets that are on lone scaled by AUM) to proxy for the degree of security lending of a fund, i.e., a higher value of past lending size, a stronger effect the ban would have on the funds' lending income during Sep. to Oct 2008.

We implement an interaction test, i.e., interacting funds' past lending size with a dummy variable indicating the ban period (2008 Sep – Oct). If the ban reduces lending income more for heavily-lending funds, we should expect the ban to increase fund voting participation for heavily-lending funds.

The results are presented in Table 5. We find that a significant and positive coefficient of the interaction term, consistent with a causal inference of the security lending on the fund participation.

4.3. Cross-sectional analyses

4.3.1. Tradeoff between the potential gains from proxy voting and securities lending income

To test Hypothesis 2, the cross-sectional differences in the negative effect of securities lending on funds' voting participation due to potential gains from proxy voting, I use a fund's economic stake in the stock and the relative past performance of the stock as a proxy for the fund's potential gains from voting. The gains are greater when a fund holds a significant stake in the stock, especially poorly performing stocks. I posit that voting on the proposals of firms with worse past performance can create greater value for voters.

$$\begin{aligned}
 D_Vote_{f,i,m} = & \alpha_{ft} + b1 * Lender_{fm-1} \\
 & * PosHeld_{f,im-1} + b2 * PosHeld_{f,im-1} + +b3 * Lender_{fm-1} + FE_{i,m} + Controls \\
 & + \varepsilon_{f,i,m}, \tag{3. a}
 \end{aligned}$$

$$\begin{aligned}
 D_Vote_{f,i,m} = & \alpha_{ft} + b1 * Lender_{fm-1} \\
 & * PosHeld_{f,i,m-1} * NegPerf_{im-1} + b2 * PosHeld_{f,im-1} + +b3 * Lender_{fm-1} \\
 & + b4 * Lender_{fm-1} * PosHeld_{f,im-1} + b5 * Lender_{fm-1} * NegPerf_{i,m-1} + FE_{i,m} \\
 & + Controls + \varepsilon_{f,i,m}. \tag{3. b}
 \end{aligned}$$

I replace the meeting fixed effects used in prior tests with firm and year fixed effects to estimate the effect of stock performance. Two major interaction variables are used in this analysis: $PosHeld_{f,i,m-1}$ is the dollar value of a fund (f)'s holdings in a firm (i) scaled by the fund's total assets under management as of month $m-1$. $NegPerf_{i,m-1}$ is a dummy variable that equals one if the cumulative DGTW abnormal return of a stock in the 12 months prior to a vote record date is negative and zero otherwise.

The results are reported in Table 6. Panel A presents the results based on interaction with Lender dummy variable. In column 1, I estimate Eq. (3.a) and find that the negative effect of securities lending on fund voting is weaker when a fund holds a larger stake in the stock, the coefficient of the interaction term between *Lender* and *PosHeld* is positive.

In column 2 of panel A, I estimate the Eq. (3.b) by interacting *Lender*, *PosHeld*, and the indicator for poor stock performance (*NegPerf*). The coefficient of this triple interaction term (*Lender*PosHeld*NegPerf*) is positive, suggesting that the large ownership mitigates the negative lending-voting participating relation especially for poorly performing stocks. This result suggests that funds are more likely to give up securities lending income and recall stocks to exert governance when the potential gains from voting are greater.

In panel B of Table 6, I construct interaction terms based on the other measure of funds' securities lending, *LendFrac*. The coefficient of *LendFrac*PosHeld* is still positive, supporting H2. The triple interaction term (*LendFrac*PosHeld*NegPerf*) is positive but insignificant.

4.3.2. The moderating effect of fund families' activeness in voting

To test Hypothesis 3, I study the moderating role of a fund family's preference for governance in the negative relation between a fund's securities lending and its voting. I use the average voting participation rate across all other funds (i.e., excluding the fund of interest itself) affiliated with the fund family as a proxy for the fund family's preference for governance via voting. I run the following regression:

$$\begin{aligned}
 & \textit{Voting Part. Ratio}_{f,m} \\
 & = \alpha_{ft} + \theta * \textit{FamVote}_{-f,m} * \textit{Lender}(\textit{or LendFrac})_{fm-1} + \beta \\
 & * \textit{Lender}(\textit{or LendFrac})_{fm-1} + \rho * \textit{FamVote}_{-f,m} + X + \varepsilon_{fm}, \quad (4)
 \end{aligned}$$

where *FamVote*_{-f,m} is the average *Vote Part* in the same period across all funds (excluding fund *f*) in the same fund family as fund *f*.

The results are reported in Table 7. I find that the negative effect of securities lending on a fund's voting participation is weaker if other funds affiliated with the same family are active voters, consistent with H3. I control for fund style fixed effects in columns 1 and 2, fund family fixed effects in columns 3 and 4, and fund fixed effects in columns 5 and 6 and find strong results in all specifications.

4.3.3. Heterogeneity of the lending-voting relation in different fund families

4.3.3.1. Subsample analysis within 12 major fund families

To explore variations across fund families, I first implement the fund-firm-voting level analysis in Eq. (2) separately with subsamples for the 12 largest fund families (e.g., Fidelity, DFA, Vanguard, Putnam, Russell, J.P. Morgan, etc.).

The results are reported in Table 7, Panel A. I find a surprisingly large dispersion of lending-voting relation among fund families. For example, among the 12 largest fund families, five exhibit a positive and significant lending-voting relation, three exhibit a negative and significant lending-voting relation, and four exhibit an insignificant lending-voting relation. The positive lending-voting relation for families, such as Fidelity and Vanguard, indicates that some fund families implement lending/voting policies differently than others.

Evans, Ferreira, and Prado (2017) argue that some funds lend securities because they cannot sell stocks on a short-selling signal (i.e., overvaluation) due to investment restrictions set by the fund family. These investment restrictions are used to diversify the fund offerings across styles to attract more investors, and thus they differ among fund families. Facing a strong short-selling signal, funds that are not allowed to sell a stock are more likely to show up in the proxy voting than funds that can sell (I call this explanation the "lock-in" hypothesis). This lock-in hypothesis is consistent with the findings of Dimmock, Gerken, Ivkovic, and Weisbenner (2018) who show that tax-sensitive funds are more likely to vote in the proxy voting of stocks (i.e., they are less likely to sell) that have appreciated in value since purchase due to the capital gains lock-in effect.

4.3.3.2. Supplementary analysis based on fund-stock-level lending information for Fidelity and Vanguard

To identify the lending information for each stock in a fund’s portfolio, I hand collect the identities of stocks that are reported as on loan from the annual and semi-annual fund shareholder (N-CSR and N-CSRS) reports for Fidelity and Vanguard funds. I choose these two families for two reasons. First, Fidelity and Vanguard are representative families that exhibit a positive and significant lending-voting relation (as show in columns 1 and 3 of Table 7, Panel A). Second, funds affiliated with Fidelity and Vanguard voluntarily report the fund-stock-level lending data. Funds are mandated to report the aggregated level of their engagement in securities lending (i.e., amount of lent and lending fees collected), while it is optional for funds to disclose which stocks are lent out by the fund. Therefore, not all lending funds provide fund-stock-level lending information in the fund annual reports. We use Perl scripts to automatically collect related information and manually clean it before using the data in the regression.

I estimate the following regression for fund-meeting observations comprised of fund f and stock i with a subsample consisting of only Fidelity and Vanguard funds:

$$D_Vote_{f,i,m} = \alpha_{ft} + \gamma * FundLentStk_{f,i,m-1} + meeting\ FEs + FundControls + \varepsilon_{f,i,m}, \quad (5)$$

where $FundLentStk_{f,i,t}$ is a dummy variable that equals one if fund f reported lending stock i in the N-CSR or N-CSRS prior to the voting record date of a meeting (but within one year of the record date) and zero otherwise.

The results of the Fidelity and Vanguard subsample are reported in Table 8, Panel B. I find that the funds in these families indeed exhibit a positive and significant lending-voting relation when I compare lent and non-lent stocks in the same fund. This result confirms that in some fund families, the lock-in effect indeed dominates and leads to a positive lending-voting relation.

Overall, although securities lending impedes fund voting participation in general, I find that it increases voting participation in a few fund families because funds are unable sell upon a short-selling signal due to investment restrictions set by these families.

5. Conclusion

Using hand-collected fund securities lending data, I study how mutual funds' securities lending affects their participation in proxy voting. Consistent with Shleifer and Vishny's (1986) argument that a shareholder's willingness to monitor a firm decreases as the cost of monitoring increases, I find that funds that lend securities are less likely to vote in the shareholder meetings of their portfolio firms.

The negative effect of securities lending on fund voting participation is weaker when a fund holds a larger stake in the stock, especially poorly performing stocks, suggesting that funds are more likely to give up securities lending income and recall stocks to exert governance when the potential gains from voting are greater. In other words, funds face a tradeoff between potential gains from proxy voting and securities lending income. The negative effect of securities lending on fund voting participation is also weaker if other funds affiliated with the same fund family are active voters, suggesting that peer effect on proxy voting decisions among funds in the same fund families.

Although securities lending impedes fund voting participation in general, I find that it increases voting participation for funds in a few fund families. One possible reason is that some funds are unable to sell upon a short-selling signal due to the investment restrictions set by these fund families. Facing a strong short-selling signal, funds that are not allowed to sell a stock are more likely to show up in the proxy voting than funds that can sell (the lock-in hypothesis). This lock-in hypothesis is consistent with the findings of Dimmock, Gerken, Ivkovic, and Weisbenner (2018), who show that tax-sensitive funds are more likely to vote in the proxy voting of stocks that have appreciated in value since purchase, rather than selling the stock (i.e., the capital gains lock-in effect). I find that funds in the Fidelity and Vanguard families indeed exhibit a positive and significant lending-voting relation when I compare lent and non-lent stocks in the same fund. This result confirms that in some fund families, the lock-in effect indeed dominates and leads to a positive lending-voting relation, although securities lending impedes fund voting participation in general as estimated with the full sample.

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Table 1: Summary statistics

This table presents statistics as fund-month level (panel A) and fund-firm-meeting level (panel B). *Voting Participation Ratio* is the number of stocks a fund votes in a month (m) scaled by the number of to-be-voted (TBV) stocks in its portfolio that month (i.e., it is the fraction of TBV stocks voted by a fund in a month). TBV stocks in a month (m) refers to stocks that have a vote record date in month m and are held by the fund as of the end of the prior month (i.e., $m-1$). I use lagged one month portfolio holding information from the Thomson Reuters S12 data to identify TBV stocks in each month. I use actual fund voting records from ISS to calculate the number of stocks a fund votes in a month; *Dummy(Vote_meet)* is an indicator that equals one if a fund that reports holding a stock as of $m-1$ also has voting records for a meeting with a vote record date in month m . I treat a fund that votes on any proposal in a meeting as a voting fund for that meeting; *Lender* is an indicator that equals one if a fund reported lending income in their annual certified shareholder report (N-CSR) prior to the record date of a meeting for a fund that holds the stock prior to that record date (i.e., an N-CSR with a report period falling in the twelve-month period ending in the month prior to the record date month of the meeting) and zero otherwise; *LendFrac(%)* is the dollar value of shares on loan in the most recent N-CSR of a lender fund scaled by the fund's end-of-year total assets under management, as a percentage. *TNA* is the fund's total net asset value; *Family TNA* is the natural logarithm of the fund family's total net asset value; *Fund alpha(monthly)* is the Fama-French-Carhart four-factor abnormal return on the fund for the month prior to the record date; *Fund Age(month)* is the number of months since the inception of the fund's oldest share class; *Expenses* is the fund's expense ratio; *Turnover* is the portfolio turnover rate of the fund. *Size Score* is the weighted average of the market capitalization quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$; *B/M Score* is the weighted average of the book-to-market quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$; *Mom Score* is the weighted average of the 12-month return quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$; *Beta Score* is the weighted average of the beta quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$; *Iliq Score* is the weighted average of the illiquidity quintile rank (prior to $m-1$) for all stocks held by a fund as of $m-1$. The variables *# of prop in a meeting* and *# of contentious prop in a meeting* refer to the number of all types of (contentious) proposals up for a vote in a meeting. "Contentious proposals" refers to proposals for which ISS's recommendation is the opposite of the recommendation by management. *Dummy(Vote_meet)*, in Panel B, is an indicator that equals one if a fund that holds a stock as of $m-1$ also has a voting record for a shareholder meeting with a vote record date in month m . I treat a fund that votes on any proposal in a meeting as a voting fund for that meeting.

Panel A: Statistics at the fund-month level

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev
Voting Participation Ratio	64,429	0.66	0.33	0.84	1.00	0.40
Lender	64,429	0.58	0.00	1.00	1.00	0.49
LendFrac(%)	64,429	5.01	0.00	0.00	6.69	8.54
#TBV Firms	64,429	11.01	2.00	3.00	9.00	30.78
TNA (million, USD)	64,429	2,387.11	125.80	437.10	1,448.20	8,623.80
Family TNA (million, USD)	64,429	121,843.97	7,505.50	30,669.60	75,611.40	247,313.41
Fund alpha(monthly)	64,429	0.00	-0.01	0.00	0.01	0.02
Fund Age(month)	64,429	207.14	102.00	154.00	235.00	178.08
Expenses	64,429	0.01	0.01	0.01	0.01	0.00
Turnover	64,429	0.91	0.39	0.69	1.16	0.92

Net inflows	64,429	0.00	-0.02	-0.01	0.00	0.11
Size Score	64,429	4.33	3.81	4.68	4.93	0.77
B/M Score	64,429	2.41	1.97	2.37	2.79	0.54
Mom Score	64,429	3.37	3.05	3.36	3.66	0.44
Beta Score	64,429	3.20	3.04	3.22	3.37	0.26
Illiquidity Score	64,429	1.27	1.01	1.07	1.43	0.40

Panel B: Statistics at the fund-firm-meeting level

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev
Dummy(Vote_meet)	664,013	0.71	0.00	1.00	1.00	0.45
Lender	664,013	0.65	0.00	1.00	1.00	0.48
LendFrac(%)	664,013	5.89	0.00	0.64	9.94	8.88
PosHeld	664,013	0.01	0.00	0.00	0.01	0.01
TNA (million, USD)	664,013	2,884.70	163.90	600.90	2,000.40	9,795.29
Family TNA (million, USD)	664,013	160,105.99	10,707.90	42,637.80	102,587.70	285,133.80
Fund alpha(monthly)	664,013	0.00	-0.01	0.00	0.01	0.01
Fund Age(month)	664,013	194.91	94.00	148.00	225.00	166.84
Expenses	664,013	0.01	0.01	0.01	0.01	0.01
Turnover	664,013	0.91	0.34	0.71	1.18	0.98
Net inflows	664,013	0.00	-0.02	-0.01	0.01	0.09
Size Score	664,013	4.19	3.44	4.53	4.88	0.81
B/M Score	664,013	2.52	2.12	2.53	2.86	0.53
Mom Score	664,013	3.39	3.12	3.39	3.64	0.39
Beta Score	664,013	3.18	3.04	3.20	3.33	0.24
Illiquidity Score	664,013	1.35	1.02	1.12	1.63	0.43
# of prop in a meeting	664,013	9.19	5.00	8.00	12.00	5.47
# of contentious prop in a meeting	664,013	1.13	0.00	0.00	1.00	1.96

Table 2: Univariate analysis: lending funds vs. non-lending funds

This table presents the univariate comparison of fund-month observations for lending funds and non-lender funds. We assign fund-month in year t into two groups based on whether the fund has engaged in securities lending in the prior year ($t-1$) or not. We provide the mean and median value of variables in the two groups and provide the difference in mean and the t-value of the difference. Please refer to Table 1 for definitions of other variables.

Variable	Lender = 1 (N=37,258)		Lender = 0 (N=27,171)		Diff. (Lender1 – Lender 0)	t-value
	Mean	Median	Mean	Median		
Voting Participation Ratio	0.652	0.818	0.667	0.88	-0.015	-4.46
# TBV Firms	12.277	4	9.265	3	3.012	13.18
TNA (million, USD)	2,327	579	2,468	290	-141	-1.88
Family TNA (million, USD)	161,993	41,542.2	66,789	13,332	95,203	52.92
Fund alpha (monthly)	-0.001	-0.001	-0.001	-0.001	0	0.2
Fund Age(month)	208.99	159	204.596	148	4.394	3.07
Expenses	0.011	0.011	0.013	0.013	-0.002	-42.11
Turnover	0.899	0.74	0.931	0.62	-0.032	-4.09
Net inflows	-0.003	-0.008	-0.002	-0.006	-0.001	-1.88
Size Score	4.337	4.702	4.331	4.646	0.006	1.02
B/M Score	2.423	2.39	2.387	2.353	0.036	8.5
Mom Score	3.379	3.377	3.352	3.336	0.027	7.53
Beta Score	3.204	3.223	3.192	3.205	0.012	5.79
Illiquidity Score	1.267	1.064	1.27	1.077	-0.003	-0.9

Table 3: The effect of fund securities lending on fund voting: A fund-month level analysis

This table presents the regression results for the effect of fund lending activities on subsequent aggregated fund voting. The unit of analysis is a fund-month observation. In Panel A (B), I present the results without (with) controlling for the characteristics of portfolio stocks. The dependent variable is *Voting Participation Ratio*, the number of stocks a fund votes in a month (m) scaled by the number of to-be-voted (TBV) stocks in the fund's portfolio that month (i.e., it is the fraction of TBV stocks voted by a fund in a month). TBV stocks in a month (m) refers to a fund's portfolio stocks with a vote record date in month m . I identify a fund's portfolio stocks in a month based on the most recent quarterly fund holding information reported prior to that month from the Thomson Reuters S12 data. I use fund voting records from ISS to calculate the number of TBV stocks that a fund votes in a month; *Lender* is an indicator that equals one if a fund reported lending income in the most recent annual certified shareholder report (N-CSR) prior to month m and zero otherwise; *LendFrac*(%) is the dollar value of shares on loan in the most recent N-CSR of a lender fund scaled by the fund's end-of-year assets under management, as a percentage. The sample covers all active U.S. equity funds from 2005 through 2011 and is restricted to fund-month observations with at least one TBV stock in a fund's portfolio. I exclude index funds. Please refer to Table 1 for definitions of other variables. Standard errors are corrected for heteroscedasticity and are clustered at the fund level. *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Results controlling for the fund characteristics

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)
	Voting Participation Ratio					
Lender	-0.039*** (-3.38)		-0.044*** (-4.33)		-0.051*** (-3.57)	
LendFrac		-0.004*** (-6.91)		-0.003*** (-6.52)		-0.004*** (-5.43)
Log(#TBV Firms)	-0.002 (-0.35)	-0.001 (-0.15)	-0.015*** (-3.86)	-0.015*** (-3.75)	-0.016*** (-5.03)	-0.016*** (-4.96)
Log(TNA)	-0.005 (-1.15)	-0.007 (-1.61)	0.000 (0.10)	-0.001 (-0.47)	-0.004 (-0.33)	-0.005 (-0.46)
Log(Family TNA)	0.019*** (5.50)	0.017*** (4.92)	-0.026* (-1.88)	-0.027** (-1.97)	-0.036*** (-3.41)	-0.037*** (-3.44)
Fund alpha(m)	0.288*** (2.87)	0.287*** (2.86)	0.336*** (3.79)	0.336*** (3.79)	0.257*** (3.09)	0.259*** (3.12)
Log(Fund Age)	-0.002 (-0.25)	-0.002 (-0.18)	-0.005 (-0.77)	-0.005 (-0.72)	0.107*** (2.85)	0.102*** (2.78)
Expenses	-1.974 (-1.30)	-1.861 (-1.24)	-0.345 (-0.23)	-0.040 (-0.03)	5.939 (1.51)	6.023 (1.55)
Turnover	-0.026*** (-3.27)	-0.026*** (-3.22)	-0.028*** (-4.82)	-0.028*** (-4.89)	-0.006 (-0.73)	-0.008 (-0.92)
Net inflows	0.010 (0.64)	0.005 (0.31)	0.025** (2.42)	0.022** (2.12)	0.018* (1.69)	0.015 (1.39)
Constant	0.114* (1.65)	0.148** (2.14)	0.511*** (3.40)	0.524*** (3.49)	0.054 (0.25)	0.077 (0.36)
Year and Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Fund Style FE	Yes	Yes	No	No	No	No
Fund Family FE	No	No	Yes	Yes	No	No
Fund FE	No	No	No	No	Yes	Yes
Observations	64,191	64,191	64,191	64,191	64,429	64,429
R-squared	0.04	0.04	0.21	0.21	0.03	0.03

Panel B: Results controlling for fund characteristics and the characteristics of portfolio stocks

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)
	Voting Participation Ratio					
Lender	-0.037*** (-3.27)		-0.044*** (-4.34)		-0.052*** (-3.60)	
LendFrac		-0.004*** (-6.83)		-0.003*** (-6.44)		-0.004*** (-5.41)
Log(#TBV Firms)	-0.001 (-0.22)	-0.000 (-0.09)	-0.013*** (-3.51)	-0.014*** (-3.53)	-0.015*** (-4.82)	-0.015*** (-4.80)
Log(TNA)	-0.004 (-1.07)	-0.006 (-1.47)	0.000 (0.08)	-0.001 (-0.42)	-0.004 (-0.34)	-0.005 (-0.46)
Log(Family TNA)	0.019*** (5.56)	0.017*** (5.01)	-0.025* (-1.79)	-0.027* (-1.90)	-0.035*** (-3.28)	-0.036*** (-3.32)
Fund alpha(m)	0.278*** (2.78)	0.288*** (2.87)	0.356*** (4.05)	0.367*** (4.16)	0.245*** (2.96)	0.255*** (3.08)
Log(Fund Age)	-0.003 (-0.29)	-0.002 (-0.22)	-0.006 (-0.94)	-0.006 (-0.90)	0.105*** (2.79)	0.100*** (2.73)
Expenses	-1.639 (-1.07)	-1.686 (-1.12)	0.189 (0.12)	0.224 (0.15)	5.932 (1.51)	6.008 (1.55)
Turnover	-0.022*** (-2.78)	-0.023*** (-2.77)	-0.025*** (-4.27)	-0.025*** (-4.43)	-0.004 (-0.53)	-0.006 (-0.72)
Net inflows	0.011 (0.74)	0.007 (0.45)	0.027*** (2.60)	0.025** (2.35)	0.018* (1.76)	0.016 (1.49)
Size Score	0.028 (0.82)	0.001 (0.04)	0.037 (1.59)	0.012 (0.51)	0.085* (1.89)	0.065 (1.46)
B/M Score	-0.014 (-1.18)	-0.016 (-1.34)	-0.013 (-1.59)	-0.015* (-1.87)	-0.022 (-1.19)	-0.021 (-1.14)
Mom Score	-0.023** (-2.17)	-0.025** (-2.39)	-0.024*** (-2.82)	-0.026*** (-3.08)	-0.008 (-0.81)	-0.011 (-1.07)
Beta Score	-0.055*** (-3.17)	-0.055*** (-3.19)	-0.024* (-1.80)	-0.022* (-1.67)	-0.021 (-1.43)	-0.022 (-1.50)
Illiquidity Score	0.067 (1.01)	0.025 (0.37)	0.057 (1.36)	0.021 (0.50)	0.102 (1.49)	0.074 (1.09)
Constant	0.162 (0.59)	0.382 (1.39)	0.455* (1.90)	0.636*** (2.63)	-0.292 (-0.83)	-0.140 (-0.40)
Year and Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Fund Style FE	Yes	Yes	No	No	No	No
Fund Family FE	No	No	Yes	Yes	No	No
Fund FE	No	No	No	No	Yes	Yes
Observations	64,191	64,191	64,191	64,191	64,429	64,429
R-squared	0.04	0.05	0.21	0.21	0.03	0.03

Table 4: The effect of fund securities lending on fund voting participation: A fund-firm-meeting level analysis

This table presents the regression results for the effect of fund lending activities on subsequent fund voting participation in each shareholder meeting of a firm. The unit of analysis is a fund-meeting observation. The dependent variable is *Dummy(Vote_meet)*, an indicator that equals one if a fund that holds a stock as of $m-1$ also has a voting record in a shareholder meeting with a vote record date in month m . I treat a fund that votes on any proposal in the meeting as a voting fund for that meeting; *Lender* is an indicator that equals one if a fund reported lending income in its most recent annual certified shareholder report (N-CSR) prior to the record date of a meeting for a fund that holds the stock and zero otherwise; *LendFrac*(%) is the dollar value of shares on loan in the most recent N-CSR of a lender fund scaled by the concurrent total assets under management of the fund, as a percentage. The sample covers all active U.S. equity funds from 2005 through 2011. Standard errors are corrected for heteroscedasticity and are clustered at the meeting level. *, **, *** indicate significance the 10%, 5%, and 1% levels, respectively.

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)
	D(Vote_meet)					
Lender	-0.057*** (-38.02)		-0.036*** (-20.45)		-0.005** (-2.06)	
LendFrac		-0.004*** (-46.37)		-0.002*** (-18.51)		-0.002*** (-16.15)
PosHeld	0.050*** (22.38)	0.050*** (22.30)	0.059*** (18.36)	0.059*** (18.34)	0.072*** (20.54)	0.072*** (20.54)
Log(TNA)	-0.002*** (-4.04)	-0.003*** (-6.46)	0.005*** (9.31)	0.004*** (6.81)	0.025*** (16.07)	0.025*** (15.74)
Log(Family TNA)	0.018*** (44.31)	0.013*** (33.67)	0.015*** (4.76)	0.014*** (4.36)	-0.016*** (-7.09)	-0.016*** (-7.08)
Fund alpha(12m)	0.228*** (17.38)	0.237*** (18.05)	0.254*** (18.92)	0.259*** (19.27)	0.214*** (14.50)	0.222*** (15.01)
Log(Fund Age)	-0.017*** (-17.42)	-0.019*** (-19.42)	-0.028*** (-24.55)	-0.029*** (-25.73)	0.026*** (4.88)	0.023*** (4.33)
Expenses	-0.037*** (-21.66)	-0.039*** (-23.00)	-0.053*** (-21.73)	-0.050*** (-20.72)	0.137*** (19.26)	0.136*** (19.20)
Turnover	-0.021*** (-27.77)	-0.021*** (-29.04)	-0.026*** (-35.43)	-0.027*** (-35.64)	-0.012*** (-8.05)	-0.012*** (-8.20)
Net inflows	0.052*** (8.00)	0.052*** (7.70)	0.034*** (5.95)	0.035*** (6.00)	-0.013** (-2.13)	-0.015** (-2.41)
Constant	0.679*** (102.35)	0.733*** (109.98)	0.717*** (20.47)	0.728*** (20.80)	0.404*** (10.91)	0.429*** (11.57)
Firm Meeting FE	Yes	Yes	Yes	Yes	Yes	Yes
Fund Style FE	Yes	Yes	No	No	No	No
Fund Family FE	No	No	Yes	Yes	No	No
Fund FE	No	No	No	No	Yes	Yes
Observations	638,497	638,497	641,222	641,222	641,221	641,221
R2	0.23	0.23	0.28	0.28	0.34	0.34

Table 5: The effect of fund securities lending on fund voting: The effect of 2008 short selling ban (A fund-month level analysis)

This table presents the regression results for the moderation role of the 2008 short selling ban on the negative effect of fund lending activities on subsequent aggregated fund voting. The unit of analysis is a fund-month observation. The dependent variable is *Voting Participation Ratio*, the number of stocks a fund votes in a month (m) scaled by the number of to-be-voted (TBV) stocks in the fund's portfolio that month (i.e., it is the fraction of TBV stocks voted by a fund in a month). TBV stocks in a month (m) refers to a fund's portfolio stocks with a vote record date in month m . Dummy (Ban Period) equals one when the dependent variables are in Sep 2008 or Oct 2008, and zero for other months. I identify a fund's portfolio stocks in a month based on the most recent quarterly fund holding information reported prior to that month from the Thomson Reuters S12 data. I use fund voting records from ISS to calculate the number of TBV stocks that a fund votes in a month; *LendFrac*(%) is the dollar value of shares on loan in the most recent N-CSR of a lender fund scaled by the fund's end-of-year assets under management, as a percentage. The sample covers all active U.S. equity funds from 2005 through 2011 and is restricted to fund-month observations with at least one TBV stock in a fund's portfolio. I exclude index funds. Please refer to Table 1 for definitions of other variables. Standard errors are corrected for heteroscedasticity and are clustered at the fund level. *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Dep. Var.=	(1)	(2)	(3)
	Voting Participation Ratio		
LendFrac*Dummy(Ban Period)	0.003*** (3.13)	0.002** (2.20)	0.002** (2.21)
LendFrac	-0.004*** (-6.99)	-0.003*** (-6.42)	-0.004*** (-5.52)
Log(#TBV Firms)	-0.001 (-0.11)	-0.013*** (-3.38)	-0.015*** (-4.83)
Log(TNA)	-0.006 (-1.46)	-0.001 (-0.31)	-0.005 (-0.43)
Log(Family TNA)	0.017*** (5.01)	-0.025* (-1.76)	-0.035*** (-3.28)
Fund alpha(m)	0.292*** (2.92)	0.375*** (4.27)	0.258*** (3.12)
Log(Fund Age)	-0.002 (-0.23)	-0.006 (-0.87)	0.100*** (2.73)
Expenses	-1.689 (-1.13)	-0.009 (-0.01)	6.037 (1.56)
Turnover	-0.023*** (-2.78)	-0.025*** (-4.36)	-0.006 (-0.71)
Net inflows	0.007 (0.47)	0.023** (2.18)	0.016 (1.50)
Size Score	0.002 (0.05)	-0.018 (-1.13)	0.066 (1.48)
BM Score	-0.016 (-1.35)	-0.015* (-1.85)	-0.022 (-1.16)
MOM Score	-0.025** (-2.36)	-0.026*** (-3.01)	-0.010 (-1.05)
Beta Score	-0.055***	-0.024*	-0.022

	(-3.17)	(-1.83)	(-1.49)
Illiquidity Score	0.026	-0.011	0.076
	(0.39)	(-0.36)	(1.13)
Constant	0.377	0.782***	-0.150
	(1.37)	(3.91)	(-0.43)
Year and Month FE	Yes	Yes	Yes
Fund Style FE	Yes	No	No
Fund Family FE	No	Yes	No
Fund FE	No	No	Yes
Observations	64,191	64,429	64,429
R-squared	0.05	0.21	0.03

Table 6: The effect of fund securities lending on fund voting participation: Cross-sectional analysis (A fund-firm-meeting level analysis)

This table presents the regression results for the cross-sectional differences in the lending-voting relation due to the importance of a stock to a fund. The unit of analysis is a fund-meeting observation. The dependent variable is *Dummy(Vote_meet)*, an indicator that equals one if a fund that holds a stock as of $m-1$ also has a voting record in a shareholder meeting with a vote record date in month m . I treat a fund that votes on any proposal in a meeting as a voting fund for that meeting; *PosHeld* is the dollar value of a fund's holdings in a firm scaled by the total dollar value of the fund's assets under management. *NegPerf* is a dummy variable that equals one if the cumulative DGTW abnormal return of a stock during a 12-month period prior to a vote record date is negative and zero otherwise. *Lender* is an indicator that equals one if a fund reported lending income in its most recent annual certified shareholder report (N-CSR) prior to the record date of a meeting for a fund that holds the stock and zero otherwise; *LendFrac(%)* is the total dollar value of shares on loan in the most recent N-CSR of a lender fund scaled by the fund's concurrent total assets under management, as a percentage. The sample covers all active U.S. equity funds from 2005 through 2011. Standard errors are corrected for heteroscedasticity and are clustered at the meeting level. *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A: Lender as the independent variable

Dep. Var.=	(1)	(2)
	D(Vote_meet)	
Lender	-0.074*** (-4.28)	-0.068*** (-4.01)
Lender*PosHeld	1.718** (2.20)	1.348* (1.81)
Lender*PosHeld*NegPerf		0.941** (2.13)
Lender*NegPerf		-0.014** (-2.15)
PosHeld*NegPerf		0.756*** (2.89)
NegPerf	-0.022*** (-10.02)	-0.024*** (-4.84)
PosHeld	4.225*** (7.27)	3.942*** (7.02)
%Contentious Prop.	-0.064*** (-15.44)	-0.063*** (-15.27)
Log(TNA)	-0.003 (-0.70)	-0.003 (-0.71)
Log(Family TNA)	0.019*** (5.75)	0.019*** (5.76)
Fund alpha(12m)	0.239** (2.02)	0.242** (2.04)
Log(Fund Age)	-0.018** (-2.13)	-0.018** (-2.13)
Expenses	-4.103** (-2.44)	-4.146** (-2.47)
Turnover	-0.021*** (-2.74)	-0.021*** (-2.73)
Net inflows	0.059** (2.16)	0.059** (2.16)
Constant	0.017 (0.18)	0.017 (0.18)
Firm FE	Yes	Yes
Year FE	Yes	Yes
Fund Style FE	Yes	Yes
Observations	638,497	638,497
R2	0.13	0.13

Panel B: LendFrac as the independent variable

Dep. Var.=	(1)	(2)
	D(Vote_meet)	
LendFrac	-0.005*** (-4.54)	-0.005*** (-4.44)
LendFrac*PosHeld	0.119** (2.33)	0.110** (2.31)
LendFrac*PosHeld*NegPerf		0.023 (0.80)
LendFrac*NegPerf		-0.000 (-1.03)
PosHeld*NegPerf		1.183*** (4.89)
NegPerf	-0.022*** (-10.02)	-0.030*** (-8.17)
PosHeld	4.718*** (10.41)	4.258*** (9.58)
%Contentious Prop.	-0.064*** (-15.44)	-0.063*** (-15.31)
Log(TNA)	-0.004 (-0.96)	-0.004 (-0.96)
Log(Family TNA)	0.014*** (4.17)	0.014*** (4.18)
Fund alpha(12m)	0.253** (2.16)	0.256** (2.19)
Log(Fund Age)	-0.021** (-2.38)	-0.021** (-2.38)
Expenses	-4.384*** (-2.63)	-4.426*** (-2.65)
Turnover	-0.022*** (-2.80)	-0.022*** (-2.78)
Net inflows	0.061** (2.20)	0.061** (2.20)
Constant	0.065 (0.72)	0.068 (0.76)
Firm FE	Yes	Yes
Year FE	Yes	Yes
Fund Style FE	Yes	Yes
Observations	638,497	638,497
R2	0.13	0.13

Table 7: The effect of fund securities lending on voting: Cross-sectional differences in fund family voting preferences

This table presents the regression results for the effect of fund lending activities on the fund's subsequent aggregated voting participation. The unit of analysis is a fund-month observation. The dependent variable is *Voting Participation Ratio*, which is the number of stocks a fund votes in month m scaled by the number of to-be-voted (TBV) stocks in the fund's portfolio that month (i.e., it is the fraction of TBV stocks voted by a fund in a month). TBV stocks in a month (m) refers to a fund's portfolio stocks with a vote record date in month m . I identify a fund's portfolio stocks in a month based on the most recent quarterly fund holding information reported prior to that month from the Thomson Reuters S12 data. I use fund voting records from ISS to calculate the number of TBV stocks that a fund votes in a month; *FamVote* is the average *Voting Participation Ratio* in a month among all funds affiliated with a fund family that has at least two funds. I exclude the focal fund itself from the calculation of this variable. *Lender* is an indicator that equals one if a fund reported lending income in its most recent annual certified shareholder report (N-CSR) prior to month m and zero otherwise; *LendFrac*(%) is the dollar value of shares on loan in the most recent N-CSR of a lender fund scaled by the concurrent total assets under management of the fund, as a percentage. The sample covers all active U.S. equity funds from 2005 through 2011 and is restricted to fund-month observations with at least one TBV stock in a fund's portfolio. I exclude index funds. The regression includes year, month, and fund-style fixed effects. Standard errors are corrected for heteroscedasticity and are clustered at the fund level. *, **, *** indicate significance the 10%, 5%, and 1% levels, respectively.

Dependent Variable	(1)	(2)	(3)	(4)	(5)	(6)
	Voting Participation Ratio					
Lender*FamVote	0.081*** (4.64)		0.112*** (5.79)		0.121*** (6.09)	
Lender	-0.062*** (-4.54)		-0.094*** (-6.38)		-0.096*** (-5.99)	
LendFrac*FamVote		0.002** (2.51)		0.003*** (3.05)		0.002** (2.41)
LendFrac		-0.002*** (-3.57)		-0.003*** (-4.48)		-0.002*** (-3.22)
FamVote	0.804*** (54.81)	0.836*** (74.94)	0.729*** (41.83)	0.776*** (57.88)	0.731*** (41.39)	0.787*** (58.49)
Log(#TBV Firms)	-0.008** (-2.10)	-0.008** (-2.05)	-0.013*** (-3.51)	-0.013*** (-3.52)	-0.012*** (-5.00)	-0.012*** (-4.95)
Log(TNA)	0.002 (0.88)	0.002 (0.84)	0.004 (1.38)	0.003 (1.21)	0.008 (1.23)	0.008 (1.31)
Log(Family TNA)	0.001 (0.72)	0.001 (0.64)	-0.010 (-0.97)	-0.009 (-0.83)	-0.010 (-1.27)	-0.009 (-1.16)
Fund alpha(m)	0.270*** (3.29)	0.271*** (3.29)	0.288*** (3.54)	0.292*** (3.57)	0.154** (2.04)	0.157** (2.07)
Log(Fund Age)	-0.008 (-1.50)	-0.008 (-1.49)	-0.008 (-1.23)	-0.008 (-1.35)	0.023 (0.99)	0.022 (0.97)
Expenses	0.374 (0.40)	0.443 (0.47)	-0.341 (-0.26)	-0.233 (-0.18)	4.657* (1.76)	4.674* (1.78)
Turnover	-0.020*** (-3.59)	-0.020*** (-3.53)	-0.028*** (-5.24)	-0.029*** (-5.31)	-0.005 (-0.83)	-0.005 (-0.87)
Net inflows	0.015* (1.68)	0.015 (1.60)	0.015* (1.87)	0.014* (1.76)	0.007 (1.06)	0.007 (0.93)
Size Score	0.015 (0.77)	0.011 (0.54)	0.006 (0.41)	-0.002 (-0.14)	0.058* (1.88)	0.053* (1.74)
B/M Score	-0.007 (-1.01)	-0.007 (-1.01)	-0.007 (-0.95)	-0.008 (-1.08)	0.000 (0.02)	0.000 (0.01)
Mom Score	-0.010 (-1.38)	-0.010 (-1.47)	-0.011* (-1.65)	-0.013* (-1.86)	0.009 (1.26)	0.007 (1.04)
Beta Score	-0.017 (-1.58)	-0.016 (-1.50)	-0.012 (-1.15)	-0.011 (-1.08)	-0.011 (-1.07)	-0.012 (-1.12)
Illiquidity Score	0.024 (0.70)	0.017 (0.51)	0.017 (0.63)	0.007 (0.24)	0.065 (1.53)	0.059 (1.41)
Constant	0.123 (0.82)	0.122 (0.82)	0.311** (2.01)	0.309** (1.98)	-0.309 (-1.32)	-0.334 (-1.43)
Year and Month FE	Yes	Yes	Yes	Yes	Yes	Yes
Fund Style FE	Yes	Yes	No	No	No	No
Fund Family FE	No	No	Yes	Yes	No	No
Fund FE	No	No	No	No	Yes	Yes
Observations	61,404	61,404	61,632	61,632	61,632	61,632
R-squared	0.44	0.44	0.45	0.45	0.36	0.36

Table 8: Heterogeneity of the relation between securities lending and voting among fund families

This table presents the regression results for the effect of fund lending activities on subsequent fund voting participation in each shareholder meeting of a firm. The unit of analysis is a fund-meeting observation. The dependent variable is *Dummy(Vote_meet)*, an indicator that equals one if a fund that holds a stock as of $m-1$ also votes in a shareholder meeting with a vote record date in month m . I treat a fund that votes on any proposal in the meeting as a voting fund for that meeting. Panel A presents the results for the largest top 12 fund families in the sample. *Lender* is an indicator that equals one if a fund reported lending income in its most recent annual certified shareholder report (N-CSR) prior to the record date of a meeting for a fund that holds the stock and zero otherwise; *LendFrac*(%) is the total dollar value of shares on loan in the most recent N-CSR of a lender scaled by the fund's concurrent total assets under management, as a percentage. In Panel B, I predict the voting decision using fund-stock level lending information for each fund affiliated with Fidelity (FID) and Vanguard (VAN). *FundLentStock* is a fund-stock level indicator that equals one if a fund reports that a stock in its portfolio is on loan in its annual or semi-annual shareholder report (N-CSR or N-CSR) with a report period within the 12 months ending one month prior to the record date for a meeting and zero otherwise. The sample covers all active U.S. equity funds (active U.S. equity funds affiliated with Fidelity and Vanguard) from 2005 through 2011 in Panel A (B). I exclude index funds. Standard errors are corrected for heteroscedasticity and are clustered at the meeting level. *, **, *** indicate significance at the 10%, 5%, and 1% levels, respectively.

Panel A: The relation between securities lending and voting in the top 12 fund families

Dependent Variable Fund Family	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	D(Vote_meet)											
	FID	DFA	VAN	AXP	OPP	MML	ACI	AIM	PAD	RUS	PUT	JPM
LendFrac	0.004*** (7.80)	0.015*** (44.74)	0.086*** (14.85)	0.003** (2.31)	0.003*** (2.62)	0.002 (1.53)	-0.003*** (-2.88)	-0.000 (-0.13)	-0.004*** (-5.41)	-0.005*** (-4.39)	-0.000 (-0.36)	0.000 (0.32)
PosHeld	0.036*** (4.75)	0.204*** (8.79)	0.069*** (15.62)	0.067*** (8.09)	0.065*** (11.36)	0.021*** (3.57)	0.071*** (11.98)	0.047*** (4.89)	0.030*** (3.76)	0.098*** (8.36)	0.093*** (12.95)	0.068*** (11.91)
Log(TNA)	0.001 (0.56)	0.096*** (30.35)	-0.041*** (-9.74)	-0.003 (-0.59)	0.008 (1.08)	0.005 (0.97)	0.013*** (3.61)	0.027*** (5.72)	0.009 (1.20)	-0.031*** (-3.99)	0.010* (1.69)	0.008*** (4.62)
Fund alpha(12m)	0.055 (1.39)	-2.565*** (-24.60)	0.717*** (8.29)	0.035 (0.25)	0.438*** (3.11)	0.113 (0.91)	0.379*** (4.78)	0.453*** (3.92)	0.657*** (5.65)	-0.868*** (-3.18)	0.004 (0.04)	-0.448*** (-5.10)
Log(Fund Age)	0.033*** (10.22)	-0.073*** (-5.80)	-0.004 (-0.60)	-0.001 (-0.05)	0.033*** (3.00)	-0.023* (-1.71)	-0.012 (-1.41)	-0.033*** (-4.28)	0.085*** (6.13)	0.256*** (9.02)	-0.035*** (-4.49)	-0.035*** (-4.60)
Expenses	0.119*** (14.76)	-0.410*** (-10.90)	-0.280*** (-12.82)	0.061* (1.88)	0.150*** (2.89)	-0.348*** (-8.93)	0.206*** (10.36)	-0.038** (-2.47)	-0.025 (-0.82)	0.116*** (3.62)	-0.068** (-2.03)	-0.082*** (-6.84)
Turnover	-0.048*** (-13.42)	0.738*** (10.66)	-0.156*** (-16.07)	-0.174*** (-10.08)	0.026 (1.63)	-0.061*** (-5.12)	-0.067*** (-9.99)	-0.054*** (-4.17)	-0.004 (-1.33)	0.164*** (6.12)	-0.070*** (-5.03)	-0.028*** (-9.60)
Net inflows	0.010 (0.19)	0.706*** (7.22)	0.680*** (3.29)	-0.015 (-0.25)	-0.103 (-0.65)	-0.041 (-0.34)	0.078 (1.53)	-0.004 (-0.05)	-0.021 (-1.14)	-0.172 (-0.83)	-0.529*** (-3.20)	0.047 (1.46)
Constant	0.465*** (17.33)	-0.278*** (-3.85)	1.276*** (69.84)	0.767*** (10.90)	0.319** (2.05)	1.214*** (13.46)	0.550*** (14.55)	0.716*** (15.57)	0.673*** (8.24)	-0.943*** (-4.94)	1.027*** (13.72)	0.859*** (19.36)
Meeting, Fund Style F	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Observations	48,912	45,433	34,880	11,789	14,801	11,981	17,567	10,068	10,675	12,408	11,799	24,503
R-squared	0.04	0.33	0.11	0.07	0.05	0.03	0.06	0.08	0.36	0.09	0.06	0.05

Panel B: Evidence from fund-stock level loan data for lenders affiliated with Fidelity (FID) and Vanguard (VAN)

Dependent Variable	D(Vote_stock)			
	(1)	(2)	(3)	(4)
FundLentStock	0.055*** (4.68)	0.070*** (6.10)	0.033*** (2.79)	0.039*** (3.34)
PosHeld			0.069*** (21.05)	0.083*** (20.71)
Log(TNA)			-0.009*** (-4.21)	-0.008 (-0.89)
Log(Family TNA)			-0.278*** (-8.16)	-0.245*** (-6.51)
Fund alpha(12m)			0.332*** (7.50)	0.391*** (8.25)
Log(Fund Age)			0.019*** (5.38)	-0.017 (-0.82)
Expenses			-0.115*** (-11.87)	0.317*** (10.84)
Turnover			-0.063*** (-16.03)	0.002 (0.35)
Net inflows			0.101 (1.64)	-0.181*** (-2.95)
Constant	0.776*** (161.48)	0.871*** (140.88)	4.637*** (9.83)	4.240*** (7.87)
Meeting FE	Yes	Yes	Yes	Yes
Fund Style FE	Yes	No	Yes	No
Fund FE	No	Yes	No	Yes
Observations	50,217	50,217	50,217	50,217
R-squared	0.03	0.11	0.06	0.14