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## **Socially responsible mutual fund activism – evidence from socially responsible mutual fund proxy voting and exit behavior**

### **Abstract**

We investigate whether socially responsible mutual funds attempt to make positive changes when casting proxy votes of their portfolio firms. Our data covers 232,680 voting decisions made by 41 socially responsible mutual funds voted on between July 2011 and June 2016. We find that the “genuine” socially responsible mutual funds tend to vote affirmatively to social and environmental proposals, while the “so-called” socially responsible mutual funds vote against most social and environmental issues. We also test linkage between prior socially responsible mutual funds’ voting and their consequent exit, and find that the “genuine” socially responsible mutual funds voice their dissatisfaction through proxy voting before exit. We also show that socially responsible mutual funds’ exit is associated with firm financial performance.

**Keywords:** socially responsible mutual funds, proxy voting, exit, shareholder activism, socially responsible investment

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# 1. Introduction

Socially Responsible Investing has been growing into a prominent investment trend during the recent years. “As of year-end 2015, more than one out of every five dollars under professional management in the United States – \$8.72 trillion or more – was invested according to socially responsible investment strategies.” stated by US SIF (The Forum For Sustainable And Responsible Investment, 2016). Investors with social preferences believe socially responsible mutual funds are likely to invest in a socially responsible manner. The main purpose of this study is to examine how socially responsible mutual funds vote and whether their prior voting is related to their exit decision. To the extent that prior funds’ voting indicates funds’ dissatisfaction toward firms, we argue that there exists a linkage when funds’ exit decision is influenced by prior funds’ voting.

From 1992 to 2002, the proportion of shares mutual funds hold in U.S. companies has increased dramatically from 7.4% to 18%. Due to the significant influence of mutual funds in the U.S. stock market, the Securities and Exchange Commission (SEC) adopts rules and form amendments to increase the transparency of proxy voting by mutual funds. Effective from April 14, 2003, the SEC requires mutual fund to file and public its record of how it casted proxy votes relating to portfolio securities (Securities and Exchange Commission, 2003). This regulation makes mutual fund proxy voting observable, and allows for a direct examination of mutual funds’ monitoring role of the firm (Morgan *et al.*, 2011).

The availability of new voting disclosure information has generated many studies to examine mutual fund voting behavior. Most of these studies, however, are often limited to conventional mutual funds, or focus on certain aspects. For example, Morgan *et al.* (2011) examine mutual fund voting pattern on shareholder proposals; McCahery, Sautner and Starks (2016) study which approach between vote and exit is preferable to mutual funds; and Duan and Jiao (2016) look at the exit and voice as governance mechanisms. Despite these studies,

particular mutual funds and their voting pattern on social proposals, specifically socially responsible mutual funds, remain unexplored. We therefore raise our first research question, whether socially responsible mutual funds tend to support social and environmental issues. Furthermore, Admati and Pfleiderer (2009) indicate mutual funds could act in different ways when they are dissatisfied with management. Most studies report that mutual funds prefer expressing their dissatisfaction through voice approach. Therefore, we maintain that voting is the initial step funds adopt when they are dissatisfied with management. This leads to our second research question, whether socially responsible mutual funds voice to express their dissatisfaction before exit.

This paper provides description and explanation of socially responsible mutual fund behavior by answering the aforementioned research questions. The overall results show that socially responsible mutual funds tend to support social and environmental proposals, however, voting behavior varies across particular socially responsible mutual funds. We then categorize socially responsible mutual funds into two groups. One is the “genuine” socially responsible mutual fund, and the other is the “so-called” socially responsible mutual fund. The “genuine” socially responsible mutual funds tend to support social and environmental proposals whereas the “so-called” socially responsible mutual funds usually oppose social and environmental proposals. Further evidence shows that in general socially responsible mutual funds’ exit is related to their prior voting behaviors. The evidence also indicates the “genuine” socially responsible mutual funds actually voice to express their dissatisfaction before exit, although we do not find any relationship between the “so-called” socially responsible mutual funds’ voting and exit. We investigate further whether different socially responsible mutual funds perform financially different. The result, however, shows no statistically difference between “genuine” and “so-called” social mutual funds in generating financial returns.

Our results contribute to the understanding of how socially responsible mutual funds fulfill their fiduciary responsibility of casting proxy votes that in line with their definition of socially responsible mutual fund. This paper is the first in the literature to study the linkage between prior voting and exit for socially responsible mutual funds. The overall evidence suggests that the “genuine” socially responsible mutual funds act in best of their aims, they influence positive social changes through their voice either by supporting social issues or voicing their dissatisfaction before exit, while the “so-called” socially responsible mutual funds vote against social and environmental issues, acting differently from the “genuine” socially responsible mutual funds.

The rest of this paper is organized as follows. The next section discusses related literature and development of hypotheses. Section 3 describes socially responsible mutual fund voting patterns. Section 4 presents a regression analysis between socially responsible mutual funds’ exit and prior voting behavior. Section 5 shows comparison of fund performances between the “genuine” and the “so-called” socially responsible mutual funds, and the final section concludes this paper.

## 2. Related literature

Earlier studies, such as Gordon and Pound (1993), Morgan and Poulsen (2001), among others, relate institutions' voting patterns to value maximization. Morgan *et al.* (2011) focuses on the linkage between mutual fund voting pattern and wealth-increasing and wealth-decreasing proposals. The evidence indicates that in general, mutual funds tend to support proposals that are believed to increase shareholder wealth. Additionally, mutual funds are likely to vote against shareholder proposals, specifically social and environmental proposals that might be considered to decrease shareholder wealth. On the other hand, socially responsible mutual funds are expected to vote more affirmatively for social and environmental proposals compared to conventional mutual funds, since socially responsible mutual funds often have different drivers and motivations other than maximizing shareholder wealth. As most social and environmental proposals are wealth-neutral or wealth-decreasing, socially responsible mutual funds may face a tradeoff between achieving financial goals and pursuing social performance by supporting these proposals. However, there is no sufficient literature to answer the question whether socially responsible mutual funds care more about social performance or financial performance. Previous studies mainly look at institutions and mutual funds in general, but none examines socially responsible mutual funds specifically.

Schueth (2003) provides an overview of socially responsible investing in the United States. The aim of socially responsible investing is to achieve financial goals while making positive changes to improve quality of life. He points out different motivations of two main socially investors. One is those "feel good" investors who invest in the companies that are aligned with their personal values and priorities. Another type of investors is those who desires to make positive change in society. The latter ones have stronger motivation and feeling to make change and improve for the better quality of life. We hypothesize that in general, socially responsible mutual funds fall in the second category of investors due to their strong beliefs in making changes, and they tend to support social and environmental proposals.

Our paper is related to the empirical literature on institutions' activism. As early as Hirschman (1970), several studies have highlighted two choices that institutions could make when they are dissatisfied with a portfolio firm: (i) they could directly intervene ("voice") the companies by takeovers, proxy fights, strategic voting, shareholders' proposals, etc., or (ii) they may consider following the "Wall Street Rule" approach and vote with their feet ("exit") by selling shares when the company's management poorly performs or fails to act in the best interest of shareholders (Admati and Pfleiderer, 2009). It is documented that, theoretically, both voice and exit are effective approaches used by active investors, since voice has the governance benefits of collective action and the threat of exit could also discipline management (McCahery, Sautner and Starks, 2016).

There are literatures focusing on the choices between exit and voice. Several studies suggest that mutual funds' decisions between vote and exit vary depend on the benefit and cost of each choice. McCahery, Sautner and Starks (2016) conduct a survey assessing institutions' preferences and actions. They find that institutions usually employ voice in their shareholder engagements. Duan and Jiao (2016) state that generally the voice approach is considered to be preferable when it comes to choosing whether exit or vote because it is easy and almost costless comparing to other approaches. Besides, sometimes voting could be as easy as following the recommendation from Institutional Shareholder Services, Inc. (ISS). ISS is a proxy advisory firm which provides the information about proxy voting guidance and recommendation. Alexander *et al.* (2010) suggest that active mutual funds are expected to follow the ISS recommendations. If ISS recommendation is against management, active mutual funds are expected to either vote against management or vote with their feet by exiting the company.

Duan and Jiao (2016) study mutual funds' exit approach, when they oppose management. The findings indicate that funds with larger stake of ownership are less likely to exit compared to other choices i.e. voting with or against management. The studies of Maug

(1998), Edmans (2009) and Edmans and Manso (2011) point out that liquidity may hinder mutual funds' choice of exit and place smaller effect on the choice of intervention. Since mutual funds hold larger stake of ownership, they are less likely to exit due to the difficulty of selling shares. Besides, Shleifer and Vishny (1986) and Kahn and Winton (1998) support the findings with their studies. They state that shareholders with larger ownership have stronger incentives to play a role through voice approach, which could have significant effect on firms' performance.

Another strand of empirical literature suggest that investment horizon can also partially determine funds' choice between exit and voting. Theoretically, mutual funds that apply short-term trading strategies usually have short investment horizon. These funds are expected to exit rather than participate in proxy voting, since they are recognized as those who are the best in-group at trading on performance-related information. Empirical findings also indicate that exits are more likely to occur with higher portfolio turnover funds (Duan and Jiao, 2016).

Prior literature finds voice is a preferable and almost costless approach for institutional investors to influence management. In addition, Riedl and Smeets (2017) report that socially responsible investors have a longer investment horizon. Therefore, we hypothesize that socially responsible mutual funds will express their dissatisfaction towards management through the voice approach prior to exit.

Several studies compare the financial performance of socially responsible and conventional mutual funds. The empirical findings about socially responsible mutual funds' performance show no significant evidence that socially responsible mutual funds underperform conventional mutual funds. The rationale behinds the findings could be (i) effective screening, only companies that are both doing good and doing well are included, (ii) some socially responsible mutual funds may select financially good companies and engage in shareholder advocacy to improve their social performance, or select socially good companies and actively



influence the financial performance, (iii) according to the model of Heinkel, Kraus and Zechner (2001), in a world with socially responsible investors, polluting companies will incur higher cost of capital, which will affect their financial performance. Thus, good companies tend to have consistently better financial performance. In other words, investing in good companies may have long-term financial benefits.

### 3. Socially responsible mutual fund proxy voting patterns

#### 3.1 Proxy voting pattern on management and shareholder proposals

The SEC requires mutual funds to disclose their proxy voting records in form N-PX for the twelve-month period of July to June. Form N-PX is publicly available on the SEC's EDGAR database. The data includes portfolio company name and ticker, shareholder meeting date, description of proposals, proposers, funds' vote cast and whether funds cast their votes for or against management. The Forum for Sustainable and Responsible Investment (US SIF) provides all sustainable and responsible mutual funds offered by US SIF's institutional member firms. We exclude mutual funds that hold an international or foreign portfolio because our primary data are obtained from U.S. database, hence, international or foreign firms' data are not included. We also exclude funds that invest in bond and fixed income instrument, because bondholders do not possess the voting right. We classify the rest as "socially responsible mutual funds." Our initial dataset contains voting data for 41 socially responsible mutual funds with 2,382 firms in the funds' portfolio between July 1, 2011 and June 30, 2016.

Proposal type	Obs.	Freq.(%)	Fund voting For(%)	Mgmt Rec. For(%)
Management Proposals	220,596	94.81%	77.39%	99.28%
Shareholder Proposals	12,084	5.19%	69.20%	3.92%
Summary	232,680	100.00%	76.96%	84.28%

Table 3.1 Socially responsible mutual fund proxy voting pattern classified by proposer

Table 3.1 shows the socially responsible mutual fund proxy voting pattern classified by proposer. Our sample consists of 232,680 proposals. Management proposes 220,596 proposals (94.81%), and shareholder proposes 12,084 proposals (5.19%). Management proposals mainly include issues regarding director election, auditor ratification, or other routine-based corporate issues. Shareholder proposals deal mainly with company policies and

procedures, corporate governance or issues of social or environmental concerns. Shareholders submit shareholder resolutions as a way to influence companies' practices of corporate social responsibility (The Forum For Sustainable And Responsible Investment, 2016).

Socially responsible mutual funds vote "For" for most proposals (76.96%), and its percentage of "voting for" does not vary a lot between management proposals (77.39%) and shareholder proposals (69.20%). Management also recommend "For" for most proposals, while its recommendation depends significantly on the type of proposers. Management recommends investors to vote "For" for 99.28% of the management proposals, whereas only 3.92% of the shareholder proposals are recommended to vote "For." Serafeim (2016) analyses 2,665 shareholder proposals submitted between 1997 and 2012 and find that 58% of the shareholder proposals were filed on financially immaterial issues. As managements tend to care more about firms' financial performances, the finding explains why managements are less likely to support shareholder proposals.

Proposal type	Obs.	Freq(%)	Fund voting For(%)	Mgmt Rec. For(%)
Social and environmental proposals	4,594	1.97%	69.13%	0.58%
Non-social and environmental proposals	228,086	98.03%	77.10%	96.27%
Summary	232,680	100.00%	76.94%	84.28%

Table 3.2 Socially responsible mutual fund proxy voting pattern classified by proposal type

Table 3.2 presents the socially responsible mutual fund proxy voting pattern classified by proposal type. Based on the proposal description from form N-PX, 4,594 proposals (1.97%) are classified as social and environmental proposals, which are relevant to social and environmental issues such as employment policy, animal welfare or greenhouse gas emission goals, etc.<sup>1</sup> Mutual funds vote "For" for a majority of social and environmental proposals

<sup>1</sup> We use keywords to classify proposals into four categories, "Election" "Auditor" "Social and environmental" and "Other". We first use Stata to classify the proposals based on our original keywords lists for the four categories, and then we go through each proposal and manually check whether the classification is correct. We do this for each fund-year one by one, so that we are able to refine our keywords list throughout the process. The final keyword lists are presented in table 3.2.1 in Appendix. "Election" and "Auditor" proposals are classified in order to make it easy to spot wrong classification of "Social and environmental" proposals. Later on, "Election" "Auditor" and "Other" are all included in the "Non-social and environmental" type.

(69.13%). In contrast, management recommends “For” for only 0.58% social and environmental proposals. Almost all social and environmental proposals are shareholder proposals; only 5 of them are management proposals.

### 3.2 Proxy voting pattern on social and environmental proposals

To answer our first research question, whether socially responsible mutual funds tend to support social and environmental issues, we investigate the voting pattern on the 4,594 social and environmental proposals (as shown in Table 3.3). Of the total 4,594 proposals from 41 mutual funds, majority of votes are “For”, which account for 69.13% of total social and environmental proposals. “Against,” “Abstain,” and “Did not vote” account for 26.34%, 2.53%, and 2.00% respectively.

Social and environmental proposals	For	Against	Abstain	Did Not Vote	Total
Total	3,176	1,210	116	92	4,594
Percentage	69.13%	26.34%	2.53%	2.00%	100.00%
Average	67.85%	28.68%	1.90%	1.57%	
Standard deviation	34.03%	34.88%	3.56%	4.30%	

Table 3.3 Socially responsible mutual fund proxy voting pattern on social and environmental proposals

We also calculate the average voting percentage and the standard deviation of the 41 socially responsible mutual funds in Table 3.3. The results show that on average, socially responsible mutual funds vote 67.85% “For” and 28.68% “Against”, implying that funds tend to vote affirmatively with social proposals. However, the average percentage does not reveal the full picture and only partially answer our first research question. It is worth noting that the standard deviation of voting “For” and voting “Against” is fairly high, at 34.03% and 34.88% respectively, which indicates the voting on social and environmental proposals differs across funds.

Table 3.4 (in Appendix) presents the voting on social and environmental proposals of the 41 socially responsible mutual funds separately. Surprisingly, not all socially responsible mutual funds support social and environmental proposals, some socially responsible mutual funds vote against social and environmental issues, and their percentage of voting against is relatively high. The finding is not as we expected before, we expected that socially responsible mutual funds are those who have strong beliefs in making positive social changes, and support social and environmental issues. However, some socially responsible mutual funds turn out to vote against most social and environmental proposals, these proposals include “Adopt human right policies” and “Implement a Water Quality Stewardship Policy.” If these funds label themselves as “socially responsible mutual fund,” they should support this type of proposals; otherwise, they fail to act fully on most socially responsible investors’ expectations.

Since socially responsible mutual funds have different voting pattern toward social and environmental proposals, we classify 41 social and responsible mutual funds into two groups. Funds that supported over 50% social and environmental proposals are classified as the “genuine” socially responsible mutual funds. On the other hand, funds that voted against over 50% social and environmental proposals are classified as the “so-called” socially responsible mutual funds. The “genuine” socially responsible mutual funds are accounted for 30 funds (73.17%), and the “so-called” socially responsible mutual funds are accounted for 11 funds (26.83%). It is worth mentioning that the “so-called” funds cast 898 against votes. This is accounted for 82.01% of total 1,210 against votes.

Morgan *et al.* (2008) suggest that mutual funds are more likely to support wealth-increasing proposals and against wealth-decreasing proposals due to the value maximization concerns. The “so-called” socially responsible funds vote against most social and environmental proposals, their voting behavior is similar to the general mutual funds’ voting behavior depicted by Morgan (2008). In contrast, the “genuine” socially responsible funds support

most social and environmental proposals that are believed to be wealth decreasing, which is different from the general mutual funds' voting behavior. Intuitively, one possible reason could be that the "genuine" socially responsible funds have other agenda than maximizing returns such as making positive changes to the society. An alternative explanation may be that the "genuine" socially responsible mutual funds believe that social and environmental proposals are wealth increasing in the long run as shown in the model of Heinkel, Kraus and Zechner (2001). This paper, however, will not investigate the rationale behind the "so-called" and the "genuine" socially responsible mutual funds' voting behavior.

## 4. Logit regression

### 4.1 Regression model

The descriptive study explains socially responsible mutual funds activism toward social issues through the lens of voting. To investigate socially responsible mutual funds activism through the exit approach, we further examine the relationship between exit and various factors with a focus on prior-year fund voting. We argue that socially responsible mutual funds first vote against management to express their dissatisfaction, and then utilize exit as the subsequent course of action. Thus, we hypothesize that “the likelihood of the following year socially responsible mutual fund’s exit is associated with the current year fund’s voting against management proposals percentage.”

We intend to estimate the following logit regression model:

$$\begin{aligned} EXIT_{i,j,t+1} = & \beta_0 + \beta_1 PERCENT\_AGAINST_{i,j,t} + \beta_2 CAR_{j,t} + \beta_3 SIZE_{j,t} \\ & + \beta_4 INSIDER\_OWNERSHIP_{j,t} + \beta_5 LEVERAGE_{j,t} \\ & + \beta_6 FUND\_OWNERSHIP_{i,j,t} + \beta_7 TURNOVER\_RATE_{i,t} + \beta_8 INDUSTRY \\ & + \beta_9 YEAR + \varepsilon \end{aligned}$$

Where:

$EXIT_{i,j,t+1}$ : A discrete variable that represents whether fund i exit firm j in year t+1

$PERCENT\_AGAINST_{i,j,t}$ : Percentage of the “Against” votes casted by fund i to management proposals of firm j in year t

$CAR_{j,t}$ : Prior three-year cumulative abnormal return of firm j by year t

$SIZE_{j,t}$ : Market value of firm j in year t

$INSIDER\_OWNERSHIP_{j,t}$ : Percentage of shares held by insiders of firm j in year t

$LEVERAGE_{j,t}$ : Long-term debt over equity for firm j in year t

$FUND\_OWNERSHIP_{i,j,t}$ : Percentage of shares held by fund i of firm j in year t

$TURNOVER\_RATE_{i,t}$ : Turnover rate of fund i in year t

$INDUSTRY$ : Industry fixed effects

*YEAR*: Year fixed effects

i: Cross-sectional unit, fund

j: Cross-sectional unit, firm

t: Year ended June 30<sup>th</sup>

### *Dependent variable*

For this study, dependent variable is a discrete variable that equals to 1 if the fund exits the firm in the following voting record year, and equals to 0 if the fund does not exit the firm in the following voting record year. Since mutual funds are required by the SEC to report the voting record at shareholder meetings of portfolio securities (Securities and Exchange Commission, 2003), missing voting record indicates that fund no longer holds shares of portfolio firm in that voting record year (if a fund holds shares of a firm but does not submit proxy vote, it will be recorded as “did not vote”). In other words, the dependent variable EXIT=1 if there is no voting record in the following year, and EXIT=0 if there is voting record in the following year.

### *Explanatory variable*

The percentage of voting against management proposals is used as the explanatory variable to explore the association between the probability of exit and the prior year voting pattern. The percentage of voting against is calculated for each observation by dividing the number of against vote casted by the fund to the total number of management proposals in that firm under that voting record year. “Against” is counted as against vote, while other votes including “Withhold” “Abstain”<sup>2</sup> or “Did not vote” are not counted as against vote because these three types of vote do not express objection to the voted issue.

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<sup>2</sup> “Withhold” and “Abstain” are choices given on voting matters that apply different voting rules. When “plurality vote” applies, which means that the winning candidate only needs to get more votes than a competing candidate, “For” or “Withhold” are the only two voting choices. A substantial number of “withhold” votes will not prevent a candidate from getting elected, but it can sometimes influence future decisions about director nominees. When the “majority vote” applies, the voted matter will be approved by a vote of a majority of the shares voting or present at the meeting. The voting choices include “For,” “Against,” or “Abstain”. The effect of an “Abstain” vote may depend on the specific voting rule that applies. (USSIF, 2016)



### *Control variable*

Prior literature shows that mutual funds' governance choices are related to firm and fund characteristics, therefore firm and fund specific characteristics that may possibly influence exit decision are included as control variables. The control variables include firm cumulative abnormal return for the prior three year, firm size, firm leverage, firm insider ownership, fund ownership and turnover rate.

The prior three-year cumulative abnormal stock return (CAR) is measured over the 750 trading days ending at the calendar year end during the voting record year (Dec 31, 2011 for voting record year from July 1, 2011 to June 30, 2012). We use the Event Study by WRDS to calculate abnormal stock returns. We employ the market-adjusted model, which uses abnormal returns defined as the excess of CRSP value-weighted market return (stock return minus CRSP value-weighted market return). We estimate the market model parameters using 200 returns from 950 through 751 days before the calendar year end.

The firm-specific control variables are firm size, leverage, and insider ownership. Firm size (SIZE) is measured by log of the market value of equity, leverage (LEVERAGE) refers to long-term debt to book value of equity and insider ownership (INSIDER\_OWNERSHIP) is measured by the total percentage of shares owned by the firm's insiders. All the three firm-specific variables are measured at calendar year end in that voting record year. Fund turnover rate (TURNOVER\_RATE) is the funds' portfolio turnover rate reported at the calendar year end of that voting record year. Fund ownership of firm (FUND\_OWNERSHIP) is the average percentage of shares owned by fund over the voting record year. We obtain data for all these variables from the CRSP and the Compustat database.

Due to the use of data across years and across different industries, year (YEAR) and industry (INDUSTRY) fixed effects are included in the regression model to eliminate year-specific and industry-specific factors. We retain observations for which all variables are available,

there are in total 2,035 observations, covering 34 funds, 205 firms across 4 years (between 2012 and 2015).

#### 4.2 Regression analysis for socially responsible mutual funds

Table 4.1 and Table 4.2 provide descriptive statistics for all main variables used in the regression models. Exit occurs for 263 times (EXIT=1), which accounts for 12.92% of the total 2,035 observations. It is worth noting that PERCENT\_AGAINST has a mean of 0.16, implying that on average, firm receives 16% of against vote from socially responsible mutual funds per year. Additionally, the median value equals to 0 implies that in over half of the cases, firm does not receive any against vote from socially responsible mutual funds. However, the maximum value is 1, which indicates that in some case, fund votes against all management proposals. The statistics shows that in general, socially responsible mutual funds rarely vote against management proposals, whereas there is variation among observations. The descriptive study in 4.3 shows that PERCENT\_AGAINST varies between the “genuine” socially responsible mutual funds and the “so-called” socially responsible mutual funds.

Exit in the next year?	Obs.	Freq.(%)
No (EXIT=0)	1,772	87.08%
Yes (EXIT=1)	263	12.92%
Summary	2,035	100%

Table 4.1 Frequencies of socially responsible mutual funds' exit

Descriptive statistics for socially responsible mutual funds								
	<i>Obs.</i>	<i>Mean</i>	<i>St. Dev.</i>	<i>Min.</i>	<i>25%</i>	<i>Median</i>	<i>75%</i>	<i>Max.</i>
<i>EXIT</i>	2,035	0.13	0.34	0.00	0.00	0.00	0.00	1.00
<i>PERCENT_AGAINST</i>	2,035	0.16	0.29	0.00	0.00	0.00	0.14	1.00
<i>CAR</i>	2,035	0.07	0.34	-0.72	-0.13	0.04	0.21	1.11
<i>SIZE</i>	2,035	17.55	1.22	14.65	16.64	17.67	18.52	20.03
<i>INSIDER_OWNERSHIP</i>	2,035	0.01	0.03	0.00	0.00	0.00	0.01	0.19
<i>LEVERAGE</i>	2,035	0.86	0.87	0.00	0.30	0.59	1.12	4.61
<i>FUND_OWNERSHIP</i>	2,035	0.28	1.02	0.00	0.01	0.02	0.11	7.76
<i>TURNOVER_RATE</i>	2,035	0.32	0.28	0.04	0.14	0.21	0.40	1.24

Table 4.2 Descriptive statistics for socially responsible mutual funds' regression

Table 4.3 (in Appendix) presents the Pearson correlation coefficients for all the variables. EXIT has a significant positive coefficient with PERCENT\_AGAINST and TURNOVER\_RATE, and has a significant negative coefficient with CAR and SIZE. The relationship between exit and voting against management proposals percentage is consistent with our hypothesis.

Regression result						
	<i>PERCENT AGAINST (+)</i>	<i>CAR (-)</i>	<i>SIZE (-)</i>	<i>INSIDER OWNERSHIP (+)</i>	<i>LEVERAGE (-)</i>	<i>FUND OWNERSHIP (-)</i>
Coefficient	0.774***	-0.690***	-0.249***	1.270	-0.138	-0.098
T-stat	(3.51)	(-2.98)	(-3.46)	(0.51)	(-1.20)	(-1.19)

  

	<i>TURNOVER RATE (+)</i>	<i>CONSTANT</i>	Industry effect	Year effect	Obs.	Pseudo R <sup>2</sup>
Coefficient	1.141***	4.273**				
T-stat	(4.84)	(2.23)	Yes	Yes	2,006	0.0998

EXIT is a discrete variable that equals 0 if fund does not exit, equals 1 if fund exit the firm in the next year. PERCENT\_AGAINST measures the percent of "Against" vote casted by fund to the firm. CAR is the prior three-year cumulative abnormal return of the firm. SIZE is the natural log of the market value of the firm. INSIDER\_OWNERSHIP measures the percentage of shares held by executives of the firm. LEVERAGE equals long-term debt over equity for the firm. FUND\_OWNERSHIP meausr how many percent of the firm's shares are held by the fund. TURNOVER\_RATE equals the turnover rate of fund.

Significant levels \*\*\*p<0.01, \*\*p<0.05, \*p<0.1

Table 4.4 Regression results of socially responsible mutual funds

The regression results are shown in table 4.4. The regression results reveal that the coefficient of percent against management is positive (0.774) and statistically significant on a 1% level (t-stat=3.51). This implies that the higher the current year fund's voting against management proposals percentage, the more likely socially responsible mutual funds are to exit in the following year.

We obtained three significant results in our control variables, CAR, SIZE and TUNROVER\_RATE. The negative coefficient for CAR indicates that the lower the prior

three-year cumulative abnormal return, the more likely socially responsible mutual funds are to exit such firms. SIZE is negatively and significantly related to the logit of exit, which indicate that socially responsible mutual funds are more likely to exit firms with smaller size. TURNOVER\_RATE is positively and significantly related to the logit of exit, implying that socially responsible mutual funds with higher turnover rate are more likely to exit. We do not find significant association between EXIT and other control variables, INSIDER\_OWNERSHIP, LEVERAGE and FUND\_OWNERSHIP.

The results indicate that the probability of exit is positively and significantly related to the percentage against management proposals in the prior year. Duan & Jiao (2016) study mutual funds' choice between the two governance approaches, voting or exit. We argue that socially responsible mutual funds are more likely to make the choice of voting, because they have longer investment horizons, they tend to hold the shares and actively vote. The regression result justifies that socially responsible mutual funds do voice their dissatisfaction through voting prior to exit. Combining with our finding in section 3, in general, socially responsible mutual funds do not only support social and environmental proposals but also actively vote against management proposals. The voting before exit implies that socially responsible mutual funds do not exit immediately when they are dissatisfied, instead they vote against management proposals to express their dissatisfaction to the firms' management and allow management to take corrective action. If management fails to satisfy socially responsible mutual funds, exit may occur subsequently.

We also find that exit is significantly related to firm's prior performance. Ng, Wang and Zaiats (2009) find that mutual fund voting is related to prior firm performance. Their results show that mutual funds support management less when prior firm performance has been weak. We argue that similar to conventional mutual funds, socially responsible mutual funds aim to improve their financial return by putting an emphasis on firm financial performance. The negative relationship from the regression results indicate that socially responsible mutual

funds are more to exit from firm with inferior stock return. This finding implies that apart from actively supporting social and environmental proposals, socially responsible mutual funds in general also care about firm financial performance.

The other control variables are mostly consistent with prior literature. Our result reports that SIZE is negatively related to EXIT. Duan & Jiao (2016) state that mutual funds tend to exit smaller firms because the cost of acquiring private information is low, hence, mutual funds can gain trading advantages. The relationship between EXIT and TURNOVER\_RATE is also significant, and the linkage in between is self-evident that socially responsible mutual funds with high turnover ratios tend to exit more frequently.

#### **4.3 Regression analysis for the “genuine” and the “so-called” socially responsible mutual funds**

To further investigate whether the two types of socially responsible mutual fund classified by their voting pattern for social and environmental proposals behave differently in respect of exit, we estimate the same logit regression in Section 4.1 for the “genuine” and the “so-called” socially responsible mutual funds separately.

Descriptive statistics for the “genuine” and the “so-called” socially responsible mutual funds are shown in table 4.5. There are perceivable differences in the explanatory variable “PERCENT\_AGAINST” between the “genuine” and the “so-called” socially responsible mutual funds. The “genuine” socially responsible mutual funds have a mean voting against percentage of 0.20, a median of 0.07, a 75 percentile of 0.21 and a maximum of 1. In comparison, the “so-called” socially responsible mutual funds have a mean of 0.02, a median of 0, a 75 percentile of 0 and a maximum of 1. We further conduct a T-test (see table 4.6) and the result shows that there is statistically significant difference between the PERCENT\_AGAINST value of the “genuine” and the “so-called” socially responsible mutual funds ( $t\text{-stat}=-12.6640$ ). This finding suggests that the “genuine” socially responsible

mutual funds are more active in voting against management proposals than the “so-called” socially responsible mutual funds. Combining with finding in section 3, the “genuine” socially responsible mutual funds consistently use the proxy voting to voice out their dissatisfaction, both in supporting social and environmental proposals and in voting against management proposals.

<b>Descriptive statistics for the "GENUINE" socially responsible mutual funds</b>								
	<i>Obs.</i>	<i>Mean</i>	<i>St. Dev.</i>	<i>Min.</i>	<i>25%</i>	<i>Median</i>	<i>75%</i>	<i>Max.</i>
<i>EXIT</i>	1,553	0.13	0.33	0.00	0.00	0.00	0.00	1.00
<i>PERCENT_AGAINST</i>	1,553	0.20	0.32	0.00	0.00	0.07	0.21	1.00
<i>CAR</i>	1,553	0.07	0.34	-0.72	-0.13	0.04	0.21	1.11
<i>SIZE</i>	1,553	17.58	1.22	14.65	16.68	17.71	18.55	20.03
<i>INSIDER_OWNERSHIP</i>	1,553	0.01	0.03	0.00	0.00	0.00	0.01	0.19
<i>LEVERAGE</i>	1,553	0.86	0.86	0.00	0.31	0.60	1.10	4.61
<i>FUND_OWNERSHIP</i>	1,553	0.29	1.03	0.00	0.01	0.02	0.06	7.76
<i>TURNOVER_RATE</i>	1,553	0.34	0.30	0.04	0.14	0.21	0.42	1.24

<b>Descriptive statistics for the "SO-CALLED" socially responsible mutual funds</b>								
	<i>Obs.</i>	<i>Mean</i>	<i>St. Dev.</i>	<i>Min.</i>	<i>25%</i>	<i>Median</i>	<i>75%</i>	<i>Max.</i>
<i>EXIT</i>	482	0.14	0.35	0.00	0.00	0.00	0.00	1.00
<i>PERCENT_AGAINST</i>	482	0.02	0.06	0.00	0.00	0.00	0.00	0.58
<i>CAR</i>	482	0.06	0.35	-0.72	-0.15	0.04	0.23	1.11
<i>SIZE</i>	482	17.45	1.23	14.65	16.53	17.50	18.39	20.03
<i>INSIDER_OWNERSHIP</i>	482	0.01	0.03	0.00	0.00	0.00	0.01	0.19
<i>LEVERAGE</i>	482	0.88	0.91	0.00	0.29	0.58	1.14	4.61
<i>FUND_OWNERSHIP</i>	482	0.28	1.01	0.00	0.02	0.06	0.22	7.76
<i>TURNOVER_RATE</i>	482	0.24	0.13	0.05	0.17	0.18	0.36	1.24

EXIT is a discrete variable that equals 0 if fund does not exit, equals 1 if fund exit the firm in the next year. PERCENT\_AGAINST measures the percent of "Against" vote casted by fund to the firm. CAR is the prior three-year cumulative abnormal return of the firm. SIZE is the natural log of the market value of the firm. INSIDER\_OWNERSHIP measures the percentage of shares held by executives of the firm. LEVERAGE equals long-term debt over equity for the firm. FUND\_OWNERSHIP meaure how many percent of the firm's shares are held by the fund. TURNOVER\_RATE equals the turnover rate of fund.

Table 4.5 Descriptive statistics for the “genuine” and the “so-called” socially responsible mutual funds’ regression

Comparison(t-test) between two groups of funds					
	Mean		Median		t-statistic on unpaired difference
	"Genuine"	"So-called"	"Genuine"	"So-called"	
<i>EXIT</i>	0.13	0.14	0.00	0.00	-0.8868
<i>PERCENT_AGAINST</i>	0.20	0.02	0.07	0.00	12.5230***
<i>CAR</i>	0.07	0.06	0.04	0.04	0.5145
<i>SIZE</i>	17.58	17.45	17.71	17.50	2.0697**
<i>INSIDER_OWNERSHIP</i>	0.01	0.01	0.00	0.00	1.0576
<i>LEVERAGE</i>	0.86	0.88	0.60	0.58	-0.4641
<i>FUND_OWNERSHIP</i>	0.29	0.28	0.02	0.06	0.2046
<i>TURNOVER_RATE</i>	0.3422	0.24	0.21	0.18	7.4149***

Table 4.6 Comparison between the “genuine” and the “so-called” socially responsible mutual funds (T-test)

The Pearson correlation for the “genuine” and the “so-called” socially responsible mutual funds can be found in table 4.7 (in Appendix). For those “genuine” socially responsible mutual funds, the correlation between EXIT and other variables are similar to the correlation for all socially responsible mutual funds. For the “so-called” socially responsible mutual funds, however, EXIT is only significantly correlated with FUND\_OWNERSHIP and TURNOVER\_RATE. The other variables are not significantly correlated with EXIT. We also find similar results from the regression as follows.

Comparison of regression results			
	"Genuine"	"So-called"	All included
<i>PERCENT_AGAINST</i>	0.997*** (4.19)	-4.738 (-1.29)	0.774*** (3.51)
<i>CAR</i>	-0.926** (-3.35)	-0.656 (-1.15)	-0.690*** (-2.98)
<i>SIZE</i>	-0.238*** (-2.77)	-0.363** (-2.24)	-0.249*** (-3.46)
<i>INSIDER_OWNERSHIP</i>	2.649 (0.91)	-1.384 (-0.25)	1.270 (0.51)
<i>LEVERAGE</i>	-0.164 (-1.17)	-0.182 (-0.80)	-0.138 (-1.20)
<i>FUND_OWNERSHIP</i>	0.009 (0.11)	-3.416** (-2.20)	-0.098 (-1.19)
<i>TURNOVER_RATE</i>	1.053*** (4.03)	3.143** (2.37)	1.141*** (4.84)
<i>CONSTANT</i>	3.404** (2.06)	4.461 (1.35)	4.273** (2.23)
Industry effect	Yes	Yes	Yes
Year effect	Yes	Yes	Yes
Observations	1,490	441	2,006
Pseudo R <sup>2</sup>	0.1114	0.1910	0.0998

EXIT is a discrete variable that equals 0 if fund does not exit, equals 1 if fund exit the firm in the next year. PERCENT\_AGAINST measures the percent of "Against" vote casted by fund to the firm. CAR is the prior three-year cumulative abnormal return of the firm. SIZE is the natural log of the market value of the firm. INSIDER\_OWNERSHIP measures the percentage of shares held by executives of the firm. LEVERAGE equals long-term debt over equity for the firm. FUND\_OWNERSHIP meaure how many percent of the firm's shares are held by the fund. TURNOVER\_RATE equals the turnover rate of fund. Significant levels \*\*\*p<0.01, \*\*p<0.05, \*p<0.1

Table 4.8 Comparison of the regression results for the “genuine”, the “so-called”, and all socially responsible mutual funds

Table 4.8 summarizes the regression results for the “genuine”, the “so-called”, and all socially responsible mutual funds. The regression result for the “genuine” socially responsible mutual funds is similar to the regression result for all socially responsible mutual funds. The coefficient on PERCENT\_AGAINST is positive (0.997) and statistically significant (t-stat=4.19), and both the coefficient and t-stat are higher than the results for all socially responsible mutual funds. The results show that for the “genuine” socially responsible mutual funds, exit is associated with their voting in the prior year, implying that these funds express their dissatisfaction through voice before exit. Among the control



variables, SIZE, TURNOVER\_RATE and CAR also show significant results. The coefficient for CAR is negative (-0.926), implying that inferior past stock returns encourage exit.

We conducted sensitivity test for the “genuine” socially responsible mutual funds by excluding 5 to 6 “genuine” socially responsible mutual funds each time and run the logit regression for the remaining 20 to 21 “genuine” socially responsible mutual funds. The results for the regressions are summarized in table 4.9. As the coefficient for PERCENT\_AGAINST are all positive and statistically significant, it shows that the regression results are not driven by particular “genuine” socially responsible mutual funds.

Sensitivity test					
	1	2	3	4	5
<i>PERCENT_AGAINST</i>	0.967*** (4.02)	0.888*** (3.23)	0.716** (2.53)	0.924*** (-2.61)	1.231*** (4.96)
<i>CAR</i>	-0.945** (-3.36)	-0.885*** (-2.86)	-1.032*** (-2.56)	-0.881*** (-2.83)	-1.053*** (-3.57)
<i>SIZE</i>	-0.241*** (-2.74)	-0.348*** (-3.59)	-0.146 (-1.27)	-0.277*** (-2.77)	-0.205** (-2.18)
<i>INSIDER_OWNERSHIP</i>	2.652 (0.88)	2.198 (0.63)	2.690 (0.66)	-3.366 (1.03)	2.099 (0.66)
<i>LEVERAGE</i>	-0.164 (-1.15)	-0.175 (-1.13)	-0.329 (-1.56)	-0.114 (-0.70)	-0.117 (-0.81)
<i>FUND_OWNERSHIP</i>	0.037 (0.44)	0.025 (0.29)	-0.099 (-0.99)	0.243 (1.28)	-0.068 (-0.76)
<i>TURNOVER_RATE</i>	1.040*** (3.88)	0.909*** (2.73)	1.196*** (3.36)	1.115*** (3.78)	1.053*** (3.79)
<i>CONSTANT</i>	2.951* (1.71)	4.809*** (2.57)	1.182 (0.58)	4.113** (2.12)	1.599 (0.83)
Industry effect	Yes	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes	Yes
Observations	1,439	1,268	701	1,075	1,364
Pseudo R <sup>2</sup>	0.1064	0.1265	0.1183	0.1194	0.1191

This test is based on all observations that belongs to the "genuine" socially responsible mutual funds. There are 26 "genuine" socially responsible mutual funds in total, in regression 1-4, we drop 5 funds in turn, and run the logit regression for the rest 21 funds. In regression 5, we drop the last 6 funds, and run the logit regression for the rest 20 funds. The test aims to test if the regression results are driven by particular funds.

Significant levels \*\*\*p<0.01, \*\*p<0.05, \*p<0.1

Table 4.9 Sensitivity test for the “genuine” socially responsible mutual funds

The regression results for the “so-called” socially responsible mutual funds in table 4.8 are fairly different from the other two regressions. Firstly, the coefficient on PERCENT\_AGAINST is negative (-4.738) and not significant (t-stat=-1.29). There is no explicit association between exit and prior voting for the “so-called” socially responsible mutual funds. Secondly, four out of the six control variables show significant results, among which, LEVERAGE and FUND\_OWNERSHIP become significant for this regression whilst they are reported as insignificant in other regressions. The coefficient for LEVERAGE is positive, implying that the “so-called” socially responsible mutual funds tend to exit firms with higher leverage ratio. The coefficient for FUND\_OWNERSHIP is negative, which is consistent with the findings of Duan & Jiao (2016) that a larger ownership stake is associated with a lower probability of exit due to liquidity constraints.

A possible explanation for the insignificant relationship between exit and voting could be that the “so-called” socially responsible mutual funds do not show their dissatisfaction through voting. This can be justified by the descriptive statistics above, where we find that the “so-called” socially responsible mutual funds are less likely to vote against management proposals than the “genuine” socially responsible mutual funds. These “so-called” socially responsible mutual funds actually vote in a similar way with other conventional mutual funds do, namely voting for management proposals that are mostly wealth-increasing and voting against social and environmental proposals, which are wealth-neutral or wealth-decreasing. However, it should be noted that we only have 8 “so-called” socially responsible mutual funds with 441 observations, this regression results may not have strong statistical power due to constrained sample size.

To test the robustness of the regression model, we include another three performance measures. The results can be found in table 4.10 (In Appendix). We find that for the “so-called” socially responsible mutual funds, there is significant and positive relationship between EXIT and MARKET\_TO\_BOOK in the prior year, and there is significant and

negative relationship between EXIT and RETURN\_TO\_SALES. This finding indicates that the “so-called” socially responsible mutual funds are more likely to exit when the market-to-book ratio is high. This also indicates that these funds are more likely to exit firms with lower operating return to sales, hence, the “so-called” socially responsible mutual funds also care about firm profitability.

We find an interesting result after including three more performance measures. The association between exit and the prior three year returns (CAR) is significant for the “genuine” socially responsible mutual funds whereas such association is not significant for the “so-called” socially responsible mutual funds. However, the association between exit and the two prior one year performance measures (MARKET\_TO\_BOOK & RETURN\_TO\_SALES) is only significant for the “so-called” socially responsible mutual funds. This may imply that the “genuine” socially responsible mutual funds care more about firms’ performance measured in longer term (3 years), while the “so-called” socially responsible mutual funds care more about firms’ performance measured in shorter term (1 year).

## 5. Socially responsible mutual fund performance

We investigate further whether the “genuine” socially responsible mutual funds and the “so-called” socially responsible mutual funds perform financially different. Following Hamilton, Jo and Statman (1993), we collect monthly returns (including dividends) of all 41 socially responsible mutual funds between July, 2011 and June, 2016. Monthly returns information are obtained from CRSP. We exclude 3 funds because they have less than 12 months’ monthly returns data. Jensen’s alpha allows us to measure the excess returns of each mutual fund.

$$R_i - R_f = \alpha_i + \beta_i(R_m - R_f) + \varepsilon_i,$$

where  $R_m$  is the monthly return on the value-weighted NYSE and  $R_f$  is the monthly return on the three-month U.S. Treasury bill.

Table 5.1 (in Appendix) presents the excess returns on the 38 socially responsible mutual funds. The excess returns of 36 of the 38 socially responsible mutual funds are not statistically different from zero. Two socially responsible mutual funds have positive and statistically significant excess returns. The average excess return for 34 socially responsible mutual funds is 0.278% annually. Our results are similar to prior studies, Hamilton, Jo and Statman (1993) find 32 socially responsible mutual funds in their samples have low excess returns relative to NYSE. Statman (2000) finds socially responsible mutual funds perform financially worse than the S&P 500.

Table 5.2 presents the comparison of monthly excess returns of the “so-called” and the “genuine” socially responsible mutual funds. The mean excess return of the “so-called” socially responsible mutual funds is -0.045% per month or -0.545% annually. While the average monthly excess returns of the “so-called” socially responsible mutual funds are reported negative, the “genuine” socially responsible mutual funds show positive mean

monthly excess returns of 0.044% or 0.532% per year. The t-statistics of the difference between the means reports the number of -1.1054.

<b>Comparison of monthly excess return of the "so-called" funds and the "genuine" socially responsible mutual funds (unpaired)</b>						
<b>"So-called"</b>			<b>"Genuine"</b>			<b>t-Statistics of the Difference between the Means</b>
<b>Mean Monthly Excess Return</b>	<b>Standard Deviation</b>	<b>Number of Funds</b>	<b>Mean Monthly Excess Return</b>	<b>Standard Deviation</b>	<b>Number of Funds</b>	
-0.00045	0.00243	8	0.00044	0.00187	26	-1.1054

Table 5.2 Comparison of monthly excess return of the “so-called” and the “genuine” socially responsible mutual funds (unpaired T-test)

To increase the statistical power of the comparison, we select 8 “genuine” socially responsible mutual funds that have similar fund size to the 8 “so-called” socially responsible mutual funds, and then perform a paired t-test between the two groups of funds. Table 5.3 presents the comparison results, indicating that the difference between the two groups’ abnormal return is still not statistically significant, with t-statistics of -0.3027.

<b>Comparison of monthly excess return of the "so-called" funds and the "genuine" socially responsible mutual funds (paired)</b>						
<b>"So-called"</b>			<b>"Genuine"</b>			<b>t-Statistics of the Difference between the Means</b>
<b>Mean Monthly Excess Return</b>	<b>Standard Deviation</b>	<b>Number of Funds</b>	<b>Mean Monthly Excess Return</b>	<b>Standard Deviation</b>	<b>Number of Funds</b>	
-0.00045	0.00243	8	-0.00019	0.00198	8	-0.3027

Table 5.3 Comparison of monthly excess return of the “so-called” and the “genuine” socially responsible mutual funds (paired T-test)

Hamilton, Jo and Statman (1993) study financial performance of conventional and socially responsible mutual funds. With 320 conventional funds and 32 socially and responsible funds sample size, they conclude that socially responsible mutual funds do not generate statistically significant different returns from conventional mutual funds. Statman (2000) conducts similar study and indicates insignificant differences in financial returns of social and conventional funds. Our findings are consistent with the previous findings. The “genuine” socially responsible mutual funds do slightly better than the “so-called” socially responsible mutual

funds in term of financial performance, however, the result shows no statistically difference. This could imply that the “genuine” socially responsible mutual funds do not only care more about social and environmental issues, but able to perform equally as well as the “so-called” socially responsible mutual funds which care less about social and environmental issues.

## 6. Conclusion

This study offers new evidence on the socially responsible mutual funds' voting and exit behavior. Using form N-PX that provides proxy voting records of all socially responsible mutual funds from the US SIF over the period July 2011 to June 2016, we examine how socially responsible mutual funds respond to the social and environmental issues and how do they respond when they are dissatisfied. Prior literature has established that in general, mutual funds tend to vote affirmatively with wealth-increasing proposals, but socially responsible mutual funds usually have other agendas than maximizing value. Our first hypothesis is that, in an attempt to make positive social changes, socially responsible mutual funds tend to vote for social and environmental proposals. Further, several studies investigate voting and exit as effective governance mechanisms. They suggest that either voting or exit plays an important role in monitoring firm, and the choice between voting and exit depends on firm and fund characteristics. In addition, the earlier studies show that mutual funds with long investment horizon prefer to vote than exit. Since socially responsible mutual funds have long investment horizon, our second hypothesis is that socially responsible mutual funds tend to voice their dissatisfaction through proxy voting prior to exit.

Our result to the first hypothesis is aligned with prior literature, socially responsible mutual funds tend to support social and environmental issues and influence positive changes through voting. However, it is worth highlighting that socially responsible mutual funds vary in their votes and not all socially responsible mutual funds support social and environmental issues. In our study, socially responsible mutual funds can be classified into two groups (i) the “genuine” socially responsible mutual funds which vote for over 50% of social and environmental proposals, and (ii) the “so-called” socially responsible mutual fund which vote against over 50% of social and environmental proposals. Furthermore, we find socially responsible mutual funds' exit is significantly related to prior voting which is consistent with

our second hypothesis. The “genuine” socially responsible mutual funds tend to vote against management before they exit. In contrast, we find no explicit relationship between the “so-called” socially responsible mutual funds’ exit and prior voting. We further compare the financial performance between the “genuine” and the “so-called” socially responsible mutual funds and find no statistically difference. Our result also suggests that socially responsible mutual funds are more likely to exit from firms with inferior past financial performance.

The finding in this study is of interest for future researchers to investigate the effectiveness of socially responsible mutual funds’ voting and exit on portfolio firms’ social and financial performance. In addition, the criterion for defining the “genuine” and the “so-called” socially responsible mutual funds can be accomplished by doing an investigation of voting records and conducting further statistical tests. Finally, it would be interesting to examine how long the socially responsible mutual funds voice their dissatisfaction to management before exit.



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## Appendix

Table 3.2.1 Keyword list for classifying proposal type

Type	Keyword
Social and environmental	Report, Social, Environment, Political, Human Right, Discrimin, Sustain, Disparity, Emission, Gender, Female, Climate, Holy Land, Energy, Renewable, Water, Diversity, Product, Tobacco, GHG, Recycl, Forest, Responsib, Supply Chain, Privacy, GMO, Hydraulic, Neutral, Health, Genetic, Child, Fair Housing, Lobby, Carbon, Crime, Animal, International Policy, Chritable, Patient
Election	Elect, Director, Reelect, Re-elect
Auditor	Public Account, Auditor, Ratif&(Audit  Public Account)

Table 3.4 Voting pattern on social and environmental proposals by 41 socially and responsible mutual funds (the “so-called” socially responsible mutual funds are listed at the bottom of the table)

No	Mutual Fund	For	Against	Abstain	Did Not Vote	Total
1	1919 Socially Responsive Balanced Fund	45	5	1		51
	<i>Percentage</i>	88.24%	9.80%	1.96%		100.00%
2	Azzad Ethical Fund	15	2			17
	<i>Percentage</i>	88.24%	11.76%			100.00%
3	Boston Common Large Cap Core Equity Fund	113	13		1	127
	<i>Percentage</i>	88.98%	10.24%		0.79%	100.00%
4	CCM Alternative Income Fund	7	2		2	11
	<i>Percentage</i>	63.64%	18.18%		18.18%	100.00%
5	Calvert Balanced Portfolio, Calvert Social Investment Fund Balanced Portfolio	129	11	5		145
	<i>Percentage</i>	88.97%	7.59%	3.45%		100.00%
6	Calvert Equity Portfolio, Calvert Social Investment Fund Equity Portfolio	82	10	2		94
	<i>Percentage</i>	87.23%	10.64%	2.13%		100.00%
7	Calvert Capital Accumulation Fund	9				9
	<i>Percentage</i>	100.00%				100.00%
8	Calvert Small Cap Fund	4				4
	<i>Percentage</i>	100.00%				100.00%
9	Calvert U.S. Large Cap Core Responsible Index Fund, Calvert Social Index Fund	419	32	7	3	461
	<i>Percentage</i>	90.89%	6.94%	1.52%	0.65%	100.00%
10	Calvert U.S. Large Cap Growth Responsible Index Fund	70	4	5		79
	<i>Percentage</i>	88.61%	5.06%	6.33%		100.00%
11	Calvert U.S. Large Cap Value Responsible Index Fund	69	7	5	1	82
	<i>Percentage</i>	84.15%	8.54%	6.10%	1.22%	100.00%
12	Domini Social Equity Fund	222	23	6	7	258
	<i>Percentage</i>	86.05%	8.91%	2.33%	2.71%	100.00%
13	Green Century Balanced Fund	82	3	1		86
	<i>Percentage</i>	95.35%	3.49%	1.16%		100.00%
14	Green Century Equity Fund	253	4	5	2	264
	<i>Percentage</i>	95.83%	1.52%	1.89%	0.76%	100.00%
15	Miller/Howard Income-Equity Fund	18	1			19
	<i>Percentage</i>	94.74%	5.26%			100.00%
16	Neuberger Berman Socially Responsive Fund	34	9			43
	<i>Percentage</i>	79.07%	20.93%			100.00%
17	Parnassus Core Equity Fund, Parnassus Equity Income Fund	82	14		1	97
	<i>Percentage</i>	84.54%	14.43%		1.03%	100.00%
18	Parnassus Endeavor Fund, Parnassus Workplace Fund	63	9		1	73
	<i>Percentage</i>	86.30%	12.33%		1.37%	100.00%
19	Parnassus Fund	67	8		1	76
	<i>Percentage</i>	88.16%	10.53%		1.32%	100.00%
20	Parnassus Mid Cap Fund	39				39
	<i>Percentage</i>	100.00%				100.00%
21	Praxis Growth Index Fund	317	30	6	6	359
	<i>Percentage</i>	88.30%	8.36%	1.67%	1.67%	100.00%
22	Praxis Small Cap Fund	5				5
	<i>Percentage</i>	100.00%				100.00%

No	Mutual Fund	For	Against	Abstain	Did Not Vote	Total
23	Praxis Value Index	409	33	9	7	458
	<i>Percentage</i>	89.30%	7.21%	1.97%	1.53%	100.00%
24	Sentinel Sustainable Core Opportunities Fund	195	41			236
	<i>Percentage</i>	82.63%	17.37%			100.00%
25	Trillium Small/Mid Cap Mutual Fund	1				1
	<i>Percentage</i>	100.00%				100.00%
26	Walden Asset Management, Walden Balanced Fund	93	25	24	29	171
	<i>Percentage</i>	54.39%	14.62%	14.04%	16.96%	100.00%
27	Walden Equity Fund	93	24	26	26	169
	<i>Percentage</i>	55.03%	14.20%	15.38%	15.38%	100.00%
28	Walden Midcap Fund	33		3		36
	<i>Percentage</i>	91.67%		8.33%		100.00%
29	Walden SMID Cap Innovations Fund	12	1	1		14
	<i>Percentage</i>	85.71%	7.14%	7.14%		100.00%
30	Walden Small Cap Innovations Fund	14	1			15
	<i>Percentage</i>	93.33%	6.67%			100.00%
	<b>Total</b>	2,994	312	106	87	3,499
	<b><i>Percentage</i></b>	85.57%	8.92%	3.03%	2.49%	100.00%
31	Shelton Green Alpha Fund	2	11			13
	<i>Percentage</i>	15.38%	84.62%			100.00%
32	Ariel Appreciation Fund	7	19			26
	<i>Percentage</i>	26.92%	73.08%			100.00%
33	Ariel Discovery Fund		1			1
	<i>Percentage</i>		100.00%			100.00%
34	Ariel Focus Fund	14	63			77
	<i>Percentage</i>	18.18%	81.82%			100.00%
35	Ariel Fund	2	15			17
	<i>Percentage</i>	11.76%	88.24%			100.00%
36	Aspiration Redwood Fund		12			12
	<i>Percentage</i>		100.00%			100.00%
37	Brown Advisory Sustainable Growth Fund	16	18			34
	<i>Percentage</i>	47.06%	52.94%			100.00%
38	ClearBridge Sustainability Leaders Fund	9	12			21
	<i>Percentage</i>	42.86%	57.14%			100.00%
39	American Century Sustainable Fund, Sustainable Equity Fund, Fundamental Equity Fund	6	426		2	434
	<i>Percentage</i>	1.38%	98.16%		0.46%	100.00%
40	The Gabelli SRI Fund	1	42			43
	<i>Percentage</i>	2.33%	97.67%			100.00%
41	TIAA-CREF Social Choice Equity	125	279	10	3	417
	<i>Percentage</i>	29.98%	66.91%	2.40%	0.72%	100.00%
	<b>Total</b>	182	898	10	5	1,095
	<b><i>Percentage</i></b>	16.62%	82.01%	0.01	0.46%	100.00%
	<b>Total</b>	3,176	1,210	116	92	4,594
	<b><i>Percentage</i></b>	69.13%	26.34%	2.53%	2.00%	100.00%

Table 4.3 Pearson correlations for socially responsible mutual funds

	EXIT	PERCENT AGAINST	CAR	SIZE	INSIDER OWNERSHIP	LEVERAGE	FUND OWNERSHIP	TURNOVER RATE
EXIT	1							
PERCENT_AGAINST	0.0740***	1						
CAR	-0.0765***	0.0371*	1					
SIZE	-0.1141***	-0.0372*	0.0808***	1				
INSIDER_OWNERSHIP	0.0251	0.0776***	0.0592***	-0.1345***	1			
LEVERAGE	-0.0393*	0.0008	-0.1370***	-0.0675***	-0.1660***	1		
FUND_OWNERSHIP	-0.0195	-0.1025***	-0.0219	-0.1944***	0.0469**	0.0409*	1	
TURNOVER_RATE	0.0812***	0.0495**	0.0540**	0.0819***	0.0017	-0.0151	-0.0161	1

EXIT is a discrete variable that equals 0 if fund does not exit, equals 1 if fund exit the firm in the next year. PERCENT\_AGAINST measures the percent of "Against" vote casted by fund to the firm. CAR is the prior three-year cumulative abnormal return of the firm. SIZE is the natural log of the market value of the firm. INSIDER\_OWNERSHIP measures the percentage of shares held by executives of the firm. LEVERAGE equals long-term debt over equity for the firm. FUND\_OWNERSHIP measures how many percent of the firm's shares are held by the fund. TURNOVER\_RATE equals the turnover rate of fund.

Significant levels \*\*\*p<0.01, \*\*p<0.05, \*p<0.1

Table 4.7 Pearson correlations for the “genuine” and the “so-called” socially responsible mutual funds

	EXIT	PERCENT AGAINST	CAR	SIZE	INSIDER OWNERSHIP	LEVERAGE	FUND OWNERSHIP	TURNOVER RATE
EXIT	1							
PERCENT_AGAINST	0.0970***	1						
CAR	-0.0864***	0.0373	1					
SIZE	-0.1325***	-0.0623**	0.1047***	1				
INSIDER_OWNERSHIP	0.0270	0.0800***	0.0584**	-0.1279***	1			
LEVERAGE	-0.0340	0.0092	-0.1293***	-0.0644**	-0.1676***	1		
FUND_OWNERSHIP	-0.0011	-0.1185***	-0.0262	-0.1656***	0.0520**	0.0211	1	
TURNOVER_RATE	0.0773***	-0.0013	0.0519**	0.0652***	0.0039	-0.0171	-0.0178	1

  

	EXIT	PERCENT AGAINST	CAR	SIZE	INSIDER OWNERSHIP	LEVERAGE	FUND OWNERSHIP	TURNOVER RATE
EXIT	1							
PERCENT_AGAINST	-0.0135	1						
CAR	-0.0452	0.0559	1					
SIZE	-0.0535	0.0501	0.0019	1				
INSIDER_OWNERSHIP	0.0207	0.0771*	0.0616	-0.1646***	1			
LEVERAGE	-0.0557	-0.0705	-0.1597***	-0.0749	-0.1616***	1		
FUND_OWNERSHIP	-0.0774*	-0.0683	-0.0082	-0.2911***	0.0278	0.1028**	1	
TURNOVER_RATE	0.1775***	0.2902***	0.0793*	0.1725***	-0.0510	0.0060	-0.0161	1

EXIT is a discrete variable that equals 0 if fund does not exit, equals 1 if fund exits the firm in the next year. PERCENT\_AGAINST measures the percent of "Against" vote casted by fund to the firm. CAR is the prior three-year cumulative abnormal return of the firm. SIZE is the natural log of the market value of the firm. INSIDER\_OWNERSHIP measures the percentage of shares held by executives of the firm. LEVERAGE equals long-term debt over equity for the firm. FUND\_OWNERSHIP measure how many percent of the firm's shares are held by the fund. TURNOVER\_RATE equals the turnover rate of fund.

Significant levels \*\*\*p<0.01, \*\*p<0.05, \*p<0.1



Table 4.10 Comparison of the regression results using three new performance measures for the “genuine”, the “so-called”, and all socially responsible mutual funds

Comparison of regression results using three new performance measures									
	PERCENT AGAINST	CAR	SALES GROWTH	MARKET TO BOOK	RETURN TO SALES	SIZE	OWNERSHIP	INSIDER LEVERAGE	
"Genuine"	0.898*** (3.62)	-0.844*** (-2.84)	-0.053 (-0.23)	-0.074 (-1.32)	0.347 (0.37)	-0.244*** (-2.71)	4.893 (1.53)	0.010 (0.05)	
"So-called"	-4.000 (-1.14)	-0.523 (-0.77)	0.533 (1.12)	0.243** (2.52)	-7.947*** (-3.09)	-0.349* (-1.79)	5.006 (-0.66)	-0.858** (-2.03)	
All included	0.752*** (3.25)	-0.694*** (-2.76)	0.033 (0.17)	0.016 (0.37)	-0.846 (-1.04)	-0.257*** (-3.31)	2.185 (0.77)	-0.154 (-0.94)	
	FUND OWNERSHIP	TURNOVER RATE	CONSTANT	Industry	Year effect	Obs.	Pseudo R <sup>2</sup>		
"Genuine"	0.038 (0.46)	1.120*** (4.18)	4.097** (2.38)	Yes	Yes	1,392	0.1150		
"So-called"	-3.869** (-1.96)	3.539** (2.38)	4.542 (1.23)	Yes	Yes	400	0.2520		
All included	-0.058 (-0.70)	1.220*** (5.02)	4.567** (2.31)	Yes	Yes	1,875	0.1050		
The three new performance measures: MARKET_TO_BOOK is the market-to-book ratio. RETURN_TO_SALES is measured as earnings before interest, taxes, depreciation, and amortization divided by sales. SALES_GROWTH is measured by the compound annual rate of change in sales over the prior three years including the proposal year									
Significant levels *** p<0.01, ** p<0.05, * p<0.1									

Table 5.1 Excess returns on the 38 socially responsible mutual funds (8 “so-called” socially responsible mutual funds are at the bottom)

Ticker	Mutual Fund	Monthly Excess Returns	Annual Excess Returns	t-statistics	Beta	t-statistics	Adjusted R-square
SSIAX	1919 Socially Responsive Balanced Fund	-0.00021	-0.00248	-0.23	0.66663	27.27	0.9264
ADJEX	Azzad Ethical Fund	-0.00219	-0.02622	-1.01	1.08172	18.28	0.8495
BCAMX	Boston Common Large Cap Core Equity Fund	0.00074	0.00884	0.53	0.94490	21.41	0.9032
CSIFX	Calvert Balanced Portfolio	0.00116	0.01396	1.3	0.57532	23.42	0.9028
CCMNX	CCM Alternative Income Fund	-0.00091	-0.01094	-0.53	0.15676	2.95	0.1807
CCAFX	Calvert Capital Accumulation Fund	-0.00275	-0.03295	-1.1	1.14565	16.72	0.8252
CSIEY	Calvert Equity Portfolio	0.00068	0.00813	0.39	0.91951	19.46	0.8649
CCVAX	Calvert Small Cap Fund	-0.00032	-0.00384	-0.13	1.09264	16.81	0.8267
CISIX	Calvert U.S. Large Cap Core Responsible Index Fund	0.00265	0.03186	1.97*	0.95871	25.99	0.9195
DSEFX	Domini Social Equity Fund	-0.00119	-0.01425	-0.78	1.00065	24.16	0.908
GGBLX	Green Century Balanced	0.00010	0.00116	0.08	0.69786	20.62	0.8779
GCEQX	Green Century Equity	0.00150	0.01800	1.11	0.91541	24.69	0.9116
NBSRX	Neuberger Berman Socially Responsive Fund	0.00026	0.00314	0.18	0.97492	24.33	0.9092
PRBLX	Parnassus Core Equity Fund	0.00370	0.04435	2.67	0.79730	21.03	0.8821
PARWX	Parnassus Endeavor Fund	0.00364	0.04371	1.81	0.97126	17.62	0.8399
PARNX	Parnassus Fund	0.00179	0.02151	0.72	1.15436	16.86	0.8277
PARMX	Parnassus Mid Cap Fund	0.00209	0.02503	1.51	0.90321	23.91	0.9063
MMDEX	Praxis Growth Index Fund	0.00330	0.03957	2.06*	0.92272	21.07	0.8825
MMSIX	Praxis Small Cap Fund	-0.00364	-0.04372	-1.19	1.11292	13.3	0.7489
MVIIX	Praxis Value Index	0.00080	0.00960	0.92	0.97677	41.24	0.9664
MYPVX	Sentinel Sustainable Core Opportunities Fund	0.00057	0.00689	0.59	0.96473	36.04	0.9565
WSBFX	Walden Asset Management Fund	0.00091	0.01086	1.06	0.66292	28.27	0.9312
WSEFX	Walden Equity Fund	0.00078	0.00937	0.67	0.92250	28.98	0.9343
WAMFX	Walden Midcap Fund	0.00095	0.01140	0.62	0.92873	21.98	0.8942
WASOX	Walden Small Cap Innovations Fund	-0.00180	-0.02157	-0.73	1.07972	16.01	0.8122
WASMX	Walden SMID Cap Innovations Fund	-0.00109	-0.01314	-0.44	1.06188	13.02	0.782
AFDIX	American Century Sustainable Equity	0.00152	0.01828	1.42	0.93887	31.94	0.9462
CAAPX	Ariel Appreciation Fund	-0.00210	-0.02523	-1.09	1.34830	25.52	0.9168
ARFFX	Ariel Focus Fund	-0.00278	-0.03340	-1.38	1.11934	20.35	0.875
ARGFX	Ariel Fund	-0.00275	-0.03305	-1.14	1.42996	21.72	0.8886
BAFWX	Brown Advisory Sustainable Growth Fund	0.00350	0.04204	1.32	0.92617	10.7	0.7116
SRIDX	Gabelli ESG Fund Inc	-0.00267	-0.03208	-1.24	0.99613	16.86	0.8276
NEXTX	Shelton Green Alpha Fund	0.00070	0.00845	0.13	1.31817	7.73	0.6074
TIXCX	TIAA-CREF Social Choice Equity	0.00095	0.01141	1.2	0.99795	45.87	0.9727
Mean Excess Returns		0.00023	0.00278				