CORPORATE SOCIAL RESPONSIBILITY AND SHAREHOLDER ACTIVISM

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"Try not to become a man of success,
but rather try to become a man of value."

Albert Einstein

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TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

Chapter One

Chapter Two

Chapter Three

Introduction

Pendant la plupart du temps et pendant de nombreuses années, le mot “finance” a été associé à l’argent et à la création d’argent. La finance majeure est populaire parmi les étudiants, car elle mène à des premiers emplois lucratifs. La “finance” concerne les risques et les rendements. La “finance” consiste à maximiser les profits des entreprises pour leurs actionnaires. Bien que l'argent est important pour fournir les nécessités de la vie et des abris pour les gens, ce n'est pas la seule chose que l'homme désire. La célèbre hiérarchie des besoins de Maslow commence par les besoins physiologiques et les besoins de sécurité au fond, et se termine par l'estime et la réalisation de soi au sommet. Les besoins aux fonds peuvent être facilement satisfaits par des éléments monétaires, alors que les besoins les plus spirituelles ne sont guère susceptibles d’être atteints avec de l’argent. Par exemple, un être humain normal peut désirer l'amour et le sentiment d'appartenance tout en étant respecté. Les gens partagent des valeurs fondamentales et ils ne sont pas susceptibles de les sacrifier pour simplement des éléments monétaires. De même, la finance et la recherche sur la finance pourraient se limiter à gagner de l’argent, mais aussi à façonner des valeurs.

Motivés par des articles et des discussions récentes sur les valeurs monétaires par rapport aux valeurs sociales, j'ai un grand intérêt à étudier l'impact des valeurs sociales ou de la responsabilité sociale des entreprises (“CSR”) sur les valeurs des entreprises. Le chapitre un et le chapitre deux étudient tous deux l'activisme des actionnaires sur les questions de CSR, tout en ayant des objectifs différents. Le premier chapitre étudie les propositions d'actionnaires déposées par des fonds socialement responsables (“SRIs”) en utilisant un échantillon collecté

à la main. Le premier chapitre fournit des statistiques descriptives sur ces propositions et examine les caractéristiques de l'entreprise cible. Deuxièmement, à l'aide de la méthodologie de l'étude des événements, il examine la réaction du marché autour du dépôt de la proposition et constate une réaction positive du marché à ces propositions. Troisièmement, il examine l'horizon à plus long terme et étudie l'impact à long terme de ces propositions sur la valeur marchande, la performance opérationnelle et la performance sociale des entreprises. Le premier chapitre contribue à la littérature empirique limitée sur l'activisme environnemental et de gouvernance sociale ("ESG") en fournissant de nouveaux résultats sur les caractéristiques cibles et la réaction du marché autour de différentes dates de proposition. De plus, il mesure l'amélioration sociale et l'impact à long terme.

Le deuxième chapitre étudie un échantillon plus large de propositions d'actionnaires déposées par différentes parties, notamment des investisseurs institutionnels (par exemple, fonds de pension, fonds SRI), des syndicats, des fondations, des groupes religieux et des particuliers. Le chapitre deux se concentre plus sur l'identification de l'impact des différents déclarants sur le résultat de la proposition, et les résultats montrent que les investisseurs institutionnels tels que les fonds SRI et les fonds de pension sont des déclarants plus performants. Si une proposition est déposée par des fonds SRI ou des fonds de pension, elle a beaucoup plus de chances de réussir et recevoir des votes plus favorables. La réaction du marché aux activités de dépôt de propositions est également positive pour ces déposants et a également une incidence à long terme sur les entreprises cibles. Le chapitre deux contribue d'abord à la littérature en confirmant la réaction positive du marché à l'activisme ESG. De plus,

il fournit des preuves montrant que le rôle des déclarants de propositions affecte le résultat de l'activisme ESG.

Le chapitre trois étudie la performance des fonds SRI. En choisissant une période de temps particulière (c'est-à-dire la crise financière), elle tente de séparer la performance des investissements des fonds des rendements générés par des groupes spécifiques d'entreprises (c'est-à-dire les entreprises ayant de bonnes notes CSR). Les résultats montrent que ces SRIs génèrent des rendements inférieurs à ceux des fonds conventionnels pendant la crise, alors que ces entreprises obtiennent en moyenne des rendements plus élevés pendant la crise, comme le suggèrent d'autres études (Lins et al. 2017). Cependant, ce résultat ne persiste pas après la crise financière dans l'échantillon correspondant. La volatilité des flux des SRIs est inférieure à celle des fonds conventionnels. L'analyse de la sensibilité des flux dans une régression linéaire par morceaux montre que les SRIs attirent plus de flux que les fonds conventionnels après avoir contrôlé divers autres facteurs. Une analyse plus poussée montre que les SRIs ont tendance à avoir un horizon d'investissement plus long et à vendre moins pendant la crise. Le chapitre trois contribue à la littérature sur les investissements en revisitant les performances des investissements SRI en se concentrant sur la période de crise financière. Il aborde également les raisons potentielles et les motivations des investisseurs en examinant les flux de fonds SRI, les sensibilités aux performances des flux, horizons des investisseurs et les activités de vente pendant la crise.

Le reste de cette thèse est constitué des corps complets des trois chapitres dans leur ordre numérique, avec des figures et des tableaux. Les références et les annexes jointes sont à la fin de chaque chapitre.

INTRODUCTION

For most of the time and for many years, the word "finance" has been linked with money and making money. Finance major is popular among college students because it leads to lucrative first jobs. "Finance" is about risks and returns; "Finance" is about maximizing firms' profits for their shareholders. As important money is to provide necessities and shelters for people, it is not the only thing that human being desires. Maslow's famous hierarchy of needs starts at physiological needs and safety needs at the bottom, and ends at esteem and self-actualization at the very top. Those needs at the bottom may be easily satisfied by monetary items, while those needs at the top are hardly likely to achieve with only money. For example, a normal human being may desire love and feeling of belongings as well as being respected. People share fundamental values and they are not likely to sacrifice them all for mere monetary items. Likewise, finance and research on finance could be more than just about making money, but about shaping values.

Recently, there has been an ongoing trend in finance research discussing if we need to adjust some finance theories by shifting the focus from profit to welfare, which includes a lot more items than monetary ones. Hart and Zingales (2017) revisits the appropriate objective function of a firm, and they suggest companies should maximize shareholders' welfare instead of market value. They each gave talks on this topic at different venues. Recently, Professor Luigi Zingales made a keynote speech at the 30th Australasian Finance and Banking Conference on December 2017, while Professor Oliver Hart gave a talk at Fudan University on March 2018. In the paper, they revisited Milton Friedman's proposition that companies' goals should be separated from

social goals. He argues that for these propositions to be fulfilled, there are strict conditions. Firstly, companies should be able to separate activities that create profits and harm societal values. Moreover, governments who handle the job of oversee ethical and social issues, can completely internalize the externality by enforcing laws and regulations. However, both conditions are highly unlikely to be met. As there are cases where shareholders are prosocial and the externalities are not perfectly separable from product decisions, companies should be maximizing shareholders' welfare instead of market value. The usual corporate theory, which first maximizes profit, then distributes the profit to shareholders and leaves them to contribute to those issues that they value individually is highly inefficient.

The paper also comments on socially responsible investing ("SRI"). If you are a socially-conscious individual, or if you would be willing to sacrifice some value in monetary terms for other types of welfare, what could you do? You could, engage in the firm through shareholder proposals, i.e. to file a shareholder proposal by yourself. Or, maybe more effectively, you could invest in an SRI fund, and the SRI, as an institutional investor, would engage in the firm through filing shareholder proposals, or voting against the management. Shareholder voting is suggested as a good way to guide the maximization of shareholder welfare. Involving shareholders, especially prosocial shareholders into the decision-making of the company and making them feel they are part of the company is the key. The rapid growing SRI investing and shareholder activism by institutional shareholders, especially social funds, create room for effectively disciplining the management and promoting the agenda of shifting business goals towards maximizing shareholders' welfare.

Finance and finance theories have been growing since the twentieth century. Having entered into the twenty-first century for almost two decades, we may need updated theories, which keeps up with the changes in people's values in their minds, and their minds lead to changes in their rational behaviors. Social value is a big topic that is worth researching in finance, and many empirical studies are needed to test for the updated theories. As Maslow's hierarchy suggests, geographically, people who have already satisfied their basic physiological needs are more likely to pursue higher levels of needs. Therefore, people in developed countries may embrace this trend of changing towards social values and welfare more so than those in developing countries. (Although as a caveat, some social value issues may impact fundamental physiological needs of people all over the world.) As a result of previous discussions, this dissertation is set to empirically study the welfare and social values in finance, and the laboratory is set at a developed country, namely the U.S.

Motivated by papers and recent talks on monetary values versus social values, I have great interest in studying how social values or corporate social responsibility ("CSR") could impact firm values. Recent studies have shown that there are mainly three potential channels, through which CSR affects firm value. Firstly, employees help create firm value. Employee welfare is part of CSR (measured by MSCI ESG KLD Statistics, known as KLD scores), and employee satisfaction improves firm value shown by positive long-term abnormal stock market returns. (eg. Edmans 2011) Secondly, customers strongly link to firm value. Product quality and safety are part of CSR, and product characteristics are the main reasons directly linked to customer purchasing decisions, especially for firms in manufacturing and retail industries. Moreover, part of the customers may be socially conscious and are sensitive to firms' actions towards

environmental, community or human rights issues. They may form updated opinion of the firm based on their CSR activities and thus influence their purchasing decisions. Papers find that firms with more customer awareness benefit more from CSR. (eg. Servaes and Tamayo 2013) Thirdly, investors are associated with firm value. Investors, especially socially-conscious investors help discipline the firms' CSR activities. Shareholder proposal is one good venue where they raise their voice and engage in the firms. Investors could use exit strategy to sell their shares, and changes in investment flows could affect firms' value. (eg. Bialkowski & Starks 2016) The third channel, investors' engagements in CSR issues in the firm and their association with firm value implications, as well as the related SRI investment performance are the main focus of this dissertation.

Chapter One and Chapter Two both study shareholder activism on CSR issues, while having different focuses. Chapter One studies shareholder proposals filed by SRI funds on environmental, social and governance ("ESG") areas. Using a hand-collected sample of 744 shareholder proposals filed by SRI funds over the 20 years, Chapter One first provides descriptive statistics on these proposals, and discusses the target firm characteristics. Second, using event study methodology, it examines market reaction around the proposal filing and finds positive market reaction to these proposals. Third, it looks at longer term horizon and studies the long-term impact of these proposals on firms' market value, operating performance as well as social performance. Chapter One contributes to the limited empirical literature on ESG activism by providing new results on target characteristics and market reaction around different proposal dates. Moreover, it measures social improvement and long-term impact of ESG activism on firms' operating and market performances.

Chapter Two studies a larger sample of shareholder proposals filed by different parties, including institutional investors (eg. Pension funds, SRI funds), union, foundations, religious group and individuals. Other than studying the market reaction of proposal filing as in Chapter One, Chapter Two focuses more on identifying the impact of different filers on the proposal outcome, including proposal success rate and the percentage of vote in favor obtained during the meetings. The results show that institutional investors such as SRI funds and pension funds are more successful filers. We examine a matching sample of proposals with similar characteristics to overcome potential endogeneity issue that institutional investors choose proposals that are more likely to succeed to file. Using probit regressions, we find that if a proposal is filed by SRI funds or pension funds, it is significantly more likely to be successful and receives more favorable votes. The market reaction of proposal filing activities is also positive for these filers and it also has long-term valuation impact on the target firms. Chapter Two contributes to the literature first by confirming the positive market reaction to ESG activism. Additional, it provides evidence on effective activism through discussing the role of proposal filers and finds that filer characteristics affects the outcome of ESG activism.

Chapter Three studies SRI funds' investment performance. By choosing a special period of time (i.e. the financial crisis), it attempts to disentangle funds' investment performance, from the returns generated by specific groups of firms (i.e. firms with high CSR scores). Although on average SRIs invest in firms associated with higher CSR scores, while these firms on average earn higher returns during the crisis, suggested by other study (Lins et al. 2017), using panel regressions, the results show that these SRIs earn worse returns than conventional funds during the crisis, measured on both raw return and risk-adjusted return basis. However, this

result does not persist after the financial crisis in the matching sample. The flow volatility of SRIs are smaller than conventional funds. Flow sensitivity analysis in a piecewise linear regression shows that SRIs attracts more flows than conventional funds after controlling for various other factors. Further analysis shows that SRIs tend to have longer investor horizon and sell less during the crisis. Chapter Three contributes to investment literature by revisiting SRI investment performance, and focuses on SRI funds' performance during the financial crisis period. It also discusses the potential reasons and investors' motivations by looking at SRI fund flows, flow performance sensitivities investor horizons and selling activities during the crisis.

The remainder of this dissertation consists of the full bodies of the Three Chapters in their numerical order, with figures and tables. The references and appendices attached are at the end of each Chapter.

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CHAPTER ONE

ENVIRONMENTAL, SOCIAL AND GOVERNANCE PROPOSALS AND SHAREHOLDER ACTIVISM

Abstract

This chapter studies shareholder activism through environmental, social and governance (ESG) proposals between 1996 and 2015 filed by social responsible funds ("SRI"). Larger, more mature firms with higher institutional holdings are more easily targeted by these proposals. An equal-weighted portfolio of target firms earns a four-factor alpha of 0.22% on the date of filing. Target firms with subsequent successful proposals earn higher buy-and-hold abnormal returns over the event period and have better long-term operating performances than firms whose proposals subsequently fail. Moreover, social performances of the target firms also improve. These findings not only provide new evidence on the mechanism and outcome of shareholder activism on ESG issues but also highlight the role of SRI in effective shareholder activism.

"BlackRock Inc., which wields outsized clout as the world's largest asset manager, planned on Monday to put new pressure on companies to explain themselves on issues including how climate change could affect their business as well as boardroom diversity."

-- Reuters, Mar 13, 2017

1. Introduction

Over the past decade, socially responsible investing ("SRI") has gained momentum and moved into the mainstream. Between 2014 and 2016, the total assets under management in the U.S. using SRI strategies expanded by 33% to $8.72 trillion. According to The Forum for Sustainable and Responsible Investment ("USSIF"), this represents a 14-fold increase since 1995. Among this number, $2.56 trillion are held by 225 institutional investors or money managers who file or co-file shareholder proposals on environmental, social and governance (ESG) issues. According to the 2014 Global Sustainable Investment Alliance ("GSIA") report, the number of fast growing mutual funds considering ESG factors ("SRI funds") in the U.S. grew from 333 to 456 between 2012 and 2014, and their collective assets doubled to $1.93 trillion. Finally, the Wall Street Journal also reports that BlackRock Inc. and Goldman Sachs Group Inc. are among those who launched new funds catering to socially responsible investors in 2015.

SRI funds mainly use two strategies to achieve their ESG influence: i) ESG incorporation and ii) shareholder proposals. ESG incorporation involves using ESG criteria to guide the funds' investment and includes, but is not limited to, both positive and negative screening. Shareholder proposal involves filing proposals on ESG issues to the target portfolio firms and requires active engagement with the management of the firms. A large part of the SRI funds, known as SRI activists, apply both strategies although being actively involved in filing shareholder proposals.

An increasing number of ESG proposals have been filed over the last decade. As recently reported by Reuters, some of the world's largest asset managers, such as BlackRock Inc., have increased pressure on firms regarding climate change or diversity issues. However, apart from some studies in the legal literature summarizing the history of SRI or providing simple descriptive statistics, there has been limited empirical work investigating the economic value of these proposals or their effect on the financial markets. Flammer (2015) studies close-call corporate social responsibility ("CSR") proposals[1] and finds abnormal returns on the date of the annual general meeting ("AGM") for these proposals.[2] Dimson et al. (2015) use a private data set to study ESG engagements and find successful engagements to be value enhancing for the target firms. Although these pioneering empirical works on ESG shareholder activism have shed light on the value of ESG proposals, a number of questions remain to be answered such as: What types of firms do these ESG proposals target? Is there a collaboration of multiple parties in filing proposals? How successful are these ESG proposals? Do ESG proposals, including withdrawn proposals, create value for target firms? When do markets react and if so, incorporate this information in the stock prices? Are there variations in the effectiveness of activism across different sponsors? Do shareholder proposals create more value than private engagements? Finally, do ESG proposals create social value as they are originally set out to do?

To answer these questions, this study examines the ESG proposals filed by SRI funds over the 1996-2015 period. SRI funds are the second most active sponsor group for CSR proposals, behind religious groups who usually have specific issue agenda. The sample comprises 744 ESG proposals targeting 310 different firms. This original database enables us to analyze

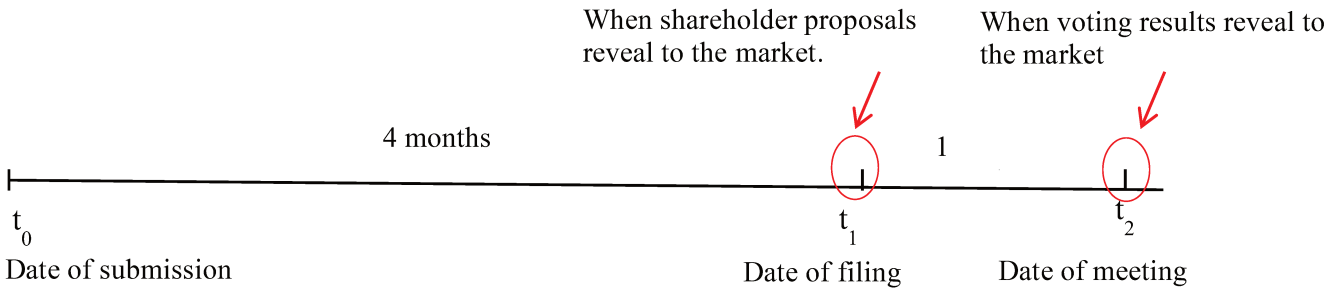
[1] ESG and CSR are used interchangeably in this paper.

[2] Close-call proposals are defined as proposals that have been accepted with a small margin.

proposals according to the issues raised and their outcomes. Special attention is devoted to withdrawn ESG proposals, which, to our knowledge, are being analyzed for the first time.

Submitting a CSR proposal is a relatively easy matter. According to Proposal Rule 14a-8, shareholders who own at least $2,000 or 1% of outstanding shares could submit issues for inclusion in the proxy materials and to be presented and voted on in the AGM or a special meeting. Appendix II offers an example of a proposal submitted by a shareholder. Figure 1 illustrates the timeline for a proposal submission. A shareholder interested in submitting proposals must do so with the management of the target firm at time t_0, which is defined as the date of submission. During the following 4 months, the shareholder and the management may engage in discussions on the proposal with the objective to reach an agreement to the issue being raised by the proposal. If an agreement that satisfies both the shareholder and the firm is reached, the proposal is withdrawn. At time t_1, unsettled proposals are filed by the target firm with the Securities and Exchange Commission ("SEC"). At time t_2, which is approximately 1 month after SEC filing, these unsettled proposals are presented at the AGM or a special proxy meeting and submitted to shareholders' vote. It is important to note that before t_1, the information about a proposal submitted by a shareholder is still private to the shareholder and the firm. Only at t_1 is this information revealed to the market. Finally, the outcome of the vote on a given proposal is revealed to the market at t_2.

Figure 1: Timeline for proposal filing:



The objective of this chapter is manifold. First, we analyze the ESG proposals on the basis of the issues raised, the target firm industry, and the year of submission. The data show that the number of ESG proposals is growing over time, targeting firms in diverse industries and covering diverse issues, including climate change, diversity, labor and business ethics. The success rate of these proposals is over 40%. Second, we look at the firm characteristics that make it attractive for SRI funds to file ESG proposals. Our analysis reveals that SRI funds tend to target larger, more mature firms with higher institutional holdings, particularly pension activist holdings. This suggests that SRI activism is quite different from other types of shareholder activism (e.g., hedge fund activism) that target small- or medium-sized firms. In addition, the target firms have a higher market share in their industry and report lower capital expenditure and research and development expenses.

Third, we analyze how the stock market reacts to these ESG proposals. We find that an equal-weighted portfolio of target firms earns a statistically significant four-factor alpha of 0.22% on the date of proposal filing.[3] For an average-sized target firm in the sample, this equals around 133 million US Dollars in market value. Then, we examine the market reaction according to the outcome of the proposal. We find statistically significant abnormal returns around the AGM meeting with target firms associated with successful proposals earning higher abnormal returns than target firms associated with unsuccessful proposals.

Fourth, we examine of long-term performance of target firms and test whether ESG proposals create enduring value for the target firms. We first look at long-term operating performance and find that the Tobin's Q and the return on assets (ROA) for the target firms

[3] When extending the analysis to a larger proposal sample including proposals filed by other sponsors, such as pension funds, foundations and individuals, we show that SRIs earn a stronger effect on the date of filing than other sponsors, who on average earn only 0.04% CAR. (Wei, 2017). Effective activism - sponsor identity in environmental and social proposal filing)

with successful proposals improve by 6% and 12% in two years after the proposals compared to those who fail to implement their proposals. We also find that successful proposals exhibit a 4% higher CAR and 0.41% monthly alpha for CTAR for the 2-year period after the proposals.

Finally, we look at the social performance of the target firms and the role that SRI funds play in promoting social influences. We find that 23% of the target firms managed to increase their social rating over 2 years following ESG proposals. In addition, we show that the presence of SRI funds and SRI activist funds contribute significantly to the future improvement of the social scores of target firms.

The contribution of this chapter is threefold. First, it adds to the limited empirical literature on ESG shareholder activism by providing new results on target firm characteristics and discussing potential collaboration between parties that file ESG proposals. Second, it provides new results relative to the market reactions on the date of proposal filing for ESG shareholder activism and confirms the value-enhancing mechanism of CSR. SRIs achieve the most effective shareholder activism among all proposal sponsors, exhibiting the highest CAR on the date of filing. In addition, it documents the long-term impact of ESG shareholder activism on both operating and market performances. Finally, it provides a measure of social improvements generated by ESG proposals and complements the investment literature on socially responsible investing.

The remainder of the chapter is structured as follows. Section 2 reviews the literature on CSR activism and proposes testable hypotheses. Section 3 presents data and descriptive statistics. Section 4 offers a complete empirical analysis of ESG activism on short-term market

reactions, long-term performances of target firms and the social performances of target firms. Section 5 provides a discussion of the results and concludes.

2. Literature review and testable hypotheses

2.1. Literature review

The theoretical literature on corporate social responsibility (CSR) is relatively recent and rapidly growing. A first paper by McWilliams and Siegel (2001) examines the supply and demand model of CSR, while a second paper by Benabou and Tirole (2010) discusses the individual and corporate social responsibility frameworks. According to these papers, there are three possible ways to view CSR. First, CSR is consistent with long-term shareholder value maximizing. The model of profit-maximizing CSR assumes that managers conduct a cost/benefit analysis in determining the CSR level and resources to be used in CSR. Second, CSR is a form of delegated philanthropy whereby individuals involved in the business express personal values on behalf of stakeholders. Third, CSR represents a value destroying agency problem where managers engage in CSR for their private benefits.

There are more papers discussing shareholder power. Bebchuk (2005) discusses the allocation of power between the management and the shareholders. His findings indicate that the existing shareholder power is insufficient in securing value-enhancing corporate governance. The author thus promotes an alternative regime to empower shareholders in monitoring corporate governance to reduce the agency problem. Harris and Raviv (2010) use formal modeling to discuss the same issue. They uncover that when the shareholders lack information or are non-value-maximizing, they may decrease firm value and delegate their decision to better-informed managers.

More recent papers examine the impact of CSR. According to an industry equilibrium model proposed in Albuquerque et al. (2018), CSR technology is regarded as a product differential strategy. The model predicts that firms that operate in industries with more product differentiation have a stronger relationship between CSR and firm risk. Gollier and Pouget (2014) propose a "washing machine" explanation for the impact of CSR whereby activist investors include in their portfolio those firms with worse CSR performance, actively engage with them to achieve better CSR performance, then to sell them on the market to earn superior returns. Finally, Katz and Owen (2016) propose a model on investor activism from the time of acquisition through divesting of shares in the target firms. The authors evaluate the impact of activism on each party and find that either the activist or the other group benefits from the activism, although both parties may not necessarily gain from it.

A number of empirical papers examine the relationship between CSR and corporate financial performance, but the results are still rather inconclusive. Margolis et al. (2007) review these papers in a meta-analysis and find that the correlation between the two is, on average, positive but very small. According to Hong et al. (2012), financial constraint is a potential missing variable in the relationship between CSR and corporate financial performance. To mitigate the endogeneity issue that better financially performed firms have more resources to invest in CSR, Kruger (2015) conducts an event study on positive and negative CSR events and looks at stock market reactions. The author finds that the stock market responds negatively to both positive and negative CSR events and more negatively to the negative events. Cellier et al. (2016) investigates trading around CSR rating announcements and find that the trading volume drops sharply before announcements and increases afterwards. Flammer (2015) analyses close-call CSR shareholder proposals and finds that the proposals that marginally pass the majority in favor attract positive market reaction on the date of meeting and firms associated

with these proposals exhibit a larger improvement in long-term operating performances. Dimson et al. (2015) analyze private CSR engagements and market reactions. They find that successful engagements are associated with higher cumulative abnormal returns and improvements in operating performances over the long term. Other papers discuss this relationship by analyzing the channels through which CSR may affect corporate financial performance. Servaes and Tamayo (2013) examine the effect of CSR on firm value, particularly through the customer awareness channel. They find that firms with more customer awareness benefit more from CSR. Edmans (2011, 2012) studies the employee satisfaction channel and finds that firms with more satisfied employees earn a 3% annual abnormal return over 26 years. Edmans, Li and Zhang (2014) extend this to an international setting. They show that employee satisfaction is associated with positive abnormal returns only in countries with high labor market flexibility but not the others. Bialkowski & Starks (2016) show that SRIs receive less volatile flows than conventional funds. This may explain the incentive for SRIs to perform CSR activism and suggest the investor channel for CSR to affect firm value.

Another strand of the literature focuses on shareholder activism through the proxy process, mainly for the purpose of corporate governance. A first paper by Smith (1996) on shareholder activism analyses the activities of a large pension fund, CalPERs. Despite the small sample size and short time series data, the author shows that shareholder wealth increases for firms that adopt activism. Gillan and Starks (2000) examine corporate governance shareholder proposals by analyzing voting outcome and short-term market reactions to these proposals conditioned on proposal type and sponsor identity. They find that institutions or coordinated groups gain more support in voting, and stock market reaction is small but varies according to proposal issues and sponsor identity.

Finally, a number of papers focus on shareholder activism by other parities. Klein and Zur (2009) look at entrepreneurial activism while Brav et al. (2008) focus on hedge fund activism. Both papers conclude that activism generates positive stock returns.

2.2. Testable hypotheses

The existing literature allows for a number of testable hypotheses. First, we can examine whether firms targeted by ESG proposal have specific characteristics. According to Dimson et al. (2015), larger and mature firms are more likely to be conscious about their image and reputation. Thus, they may be more reactive to shareholders' proposals. Proposals targeting these large firms may be more eye-catching as well as generate interest and discussion from the public. In addition, firms with lower spending in research and development and capital expenditures have more scope for improvement. Firms that have already invested extensively may be less willing to increase their investments, and it may be more difficult for managers in those firms to justify further investments.

Second, we can test whether ESG shareholder activism benefits from the collaboration among activists and investors. The existing literature on other forms of activism (Gillan and Starks (2007) and Brav et al. (2008)) have shown evidence of investor collaboration and its influence on activism outcomes. Dimson et al. (2015) also find that collaborative engagements lead to higher success rates than engagements with no cooperation. This can be explained by the fact that collaboration between pension activists and SRI activists improve their bargaining power in their negotiation with the management of target firms.

Third, we can test the impact of ESG proposals on short-term reactions of financial markets and the long-run performance and market return of target firms. As previously mentioned, a number of papers have shown that there are many channels through which CSR may positively contributes to firm value. Therefore, we can test whether ESG proposals (which promote CSR) also positively contribute to firm value and operating performance of the firm and whether this effect is captured by the stock market. These effects would be consistent with the work of Benabou and Tirole (2010), who defend the view that CSR is in line with profit maximization over the long run. Given improving the target firms' social profile is the primary goal of the ESG proposals, we can also test whether ESG proposals indeed fulfill this goal.

3. Data and preliminary analysis

3.1 Data

Data on the shareholder proposals are obtained from SRI activist mutual funds and SEC EDGAR websites. These SRI activist mutual funds represent a subset of the member list of SRI mutual funds from USSIF, which collects information based on shareholders' advocacy strategy and provides a detailed list of the proposals including time, issue areas and outcome. As noted by Bialkowski & Starks (2016), being a USSIF member provides shareholders with a larger exposure to investors with social concerns. Over the study period from 1996 to 2015, a total of 744 shareholder proposals were filed, targeting 310 different firms. Detailed proposal information, proxy filing dates and meeting dates are hand-collected from Schedule 14a, which are available from SEC EDGAR. This sample is completed by proposals obtained from Institutional Shareholders Services ("ISS") for the sample period.

Analyzing the financial impact of shareholder activism requires a number of pieces of information. Relevant financial information is collected from the mutual fund holdings (Schedule#12) and institutional holdings (Schedule#34), which are available from Thomson Reuters. Stock market returns are extracted from CRSP, while firm characteristics are collected from Compustat.

To analyze the social impact of shareholder activism, we collect social ratings for the target firms from MSCI ESG KLD Statistics, known as KLD scores. This database comprises positive and negative ESG performance indicators of a universe of U.S. publicly traded companies and is revised on an annual basis. The KLD database is one of the most trustworthy indicators for CSR performance widely used in academic research,[4] with the longest continuous ESG time series data available. The indicators are divided into six categories: employee relations, community, environment, social, human rights, and product. Each category has a subtotal score for positive aspects called "strength" and a subtotal score for negative aspects called "concern". For each category, we first compute the strength and the concern scores and then the total score, which is equal to difference between the strength and the concern score. We also calculate the total strength and total concern scores by adding up the scores in each category. Finally, similar to Lins et al. (2017), we calculate standardized scores whereby scores for each category are scaled by the maximum number of items scored for a given category in a given year to accommodate for the changes in the number of categories over the years.

[4] For example, Deng, Kang and Low (2013) and Galema, Plantinga and Scholtens (2008).

3.2 Descriptive statistics

3.2.1 Proposals

Based on the description of issue areas obtained from SRI investors' websites and further reconciliation for ambiguous proposals with EDGAR proxy statements, the proposals can be divided into ten subcategories under three main areas: governance, environment and social. This categorization follows Dimson et al. (2015) with the exception that proposals relating to board diversity are categorized in the social area instead of the governance area, as they reflect more CSR concern. Table 1 lists the breakdown of proposal areas and issues.

Table 1: Breakdown of proposal areas and issues

This table summarizes different shareholder proposals over the sample period 1996 to 2015. Shareholder proposals are categorized by two main areas: Corporate Governance (CG sample) and Environmental and Social (ES sample). Then, ES sample is further divided into sub-categories. Environmental area includes issues covering for example climate change, environmental management while and social area includes issues such as human rights, labor, ethics and sustainable reporting.

Areas	Issues	No.
1. Governance		
1.1 Corporate governance	Audit and control, board structure, remuneration, shareholder rights, transparency	88
Total Governance Proposals		**88**
2. Environment		
2.1 Climate change	Biofuels, climate change strategy, emissions management	78
2.2 Ecosystem services	Access to land and water	18
2.3 Environmental management	Environmental standards, pollution control, supply chain environmental standards, recycling	102
3. Social		
3.1 Public health	Access to medicines, product safety	35
3.2 Human rights	Community relations, privacy and free expression, weak governance zones	39
3.3 Labor standards	Diversity, Health and safety, ILO core conventions, supply chain labor standards	157
3.4 Business ethics	Bribery and corruption, political influence	100
3.5 Sustainability management and reporting	Disclosure and reporting, governance of sustainability issues, UNGC compliance	121
3.6 Plant and animal rights	Protect plant and wild animals	6
Total Environment and Social Proposals		**656**
Total ESG Proposals		**744**

The largest subcategory is labor standard related issues (157 proposals), which addresses equal employment opportunities and sexual equality. The second largest subcategory (121 proposals) is sustainable management and reporting, which addresses preparation of sustainable reports and compliance with the United Nations Global Compact. Sustainable reporting has a wider topic than only environmental issues, which includes issues on economy, environment, social values and governance, and it is classified under social category following extant literature (e.g. Dimson et al. 2015). The third largest subcategory (102 proposals) is environmental standards, which targets recycling issues and pollution control. Business ethics (100 proposals) and climate changes (78 proposals) are also major issues among environment and social proposals. Finally, corporate governance proposals (88), which mainly target executive compensation, also represent a non-negligible proportion of the sample. There are more corporate governance proposals filed than CSR proposals among all the shareholder proposals, but they are mainly filed individuals and unions; among those raised by social funds (i.e. current sample), corporate governance proposals only account for a small fraction (12%).

Tables 2(a) and 2(b) report the distribution of the sample by year and by industry. First, one can observe that SRI sponsored proposals have been following a clear positive trend over the sample period with 10 proposals filed in 1996 and 92 in 2015. When dividing our sample into two categories, ES (environmental and social) and CG (corporate governance), we can see that the former represents the most frequent type of proposals. We then looked at the success rate of these proposals for the entire sample and the two subcategories of proposals. A proposal is considered as successful if the outcome indicates "successfully withdrawn" or if the proposal goes to voting and obtains the approval of more than 50% of shareholders. Successfully withdrawn proposals are proposals submitted by activists but on which an agreement was reached with the management. These proposals are then withdrawn before the annual meeting.

Table 2 (a): Summary of proposals by year

This table summarizes shareholder proposals by year. Columns (2) and (3) report the number of proposals and % in the full sample submitted each year. Column (4) reports the success rate of shareholder proposals for each year. Columns (5) – (8) report the number of ES and CG proposals each year and their success rate.

	Full sample			ES sub-sample		CG sub-sample	
Year	**No.**	**% sample**	**% success**	**No.**	**% success**	**No.**	**% success**
1996	10	1.3%	40%	9	33%	1	100%
1997	14	1.9%	43%	11	45%	3	33%
1998	15	2.0%	27%	14	21%	1	100%
1999	13	1.7%	8%	12	8%	1	0%
2000	19	2.6%	21%	18	22%	1	0%
2001	38	5.1%	32%	32	31%	6	33%
2002	42	5.6%	31%	36	31%	6	33%
2003	36	4.8%	44%	29	41%	7	57%
2004	38	5.1%	45%	30	37%	8	75%
2005	26	3.5%	35%	25	36%	1	0%
2006	32	4.3%	50%	32	50%	0	0%
2007	35	4.7%	57%	32	56%	3	67%
2008	42	5.6%	43%	35	51%	7	0%
2009	36	4.8%	44%	23	35%	13	62%
2010	40	5.4%	50%	29	45%	11	64%
2011	60	8.1%	50%	54	52%	6	33%
2012	53	7.1%	51%	49	51%	4	50%
2013	41	5.5%	49%	39	49%	2	50%
2014	62	8.3%	53%	61	54%	1	0%
2015	92	12.4%	42%	86	43%	6	33%
Total /average	**744**	**100.0%**	**43.7%**	**656**	**43.3%**	**88**	**46.6%**

Sometimes the agreement reached might be symbolic, and management may take little real action toward improving the issue raised by the activists. In such cases, activists are likely to submit a proposal with a similar concern to the target firm the following year. In the case of a successfully withdrawn proposal for which a similar concern is filed by the same activist shareholder to the same target firm the following year, the original outcome for the previous (successfully withdrawn) is changed to "unsuccessful". Since shareholder proposals are not mandatory, SRI activists may still choose to resubmit a proposal even when the original

proposal received a majority vote the previous year if they do not see any improvement in the issue from the target firm. In such case, the outcome of the previous year (successful) is also replaced with "unsuccessful". 5 Overall, the success rate for SRI proposals is approximately 40% and constant across samples. The success rate for the entire sample and the ES sub-sample slightly improved, while the CG sub-sample exhibits a high volatility due to the small sample size. The success rate in our sample is significantly larger than the one reported by Dimson et al. (2015) (17.8%) using proprietary engagement data. This seems to suggest that SRI-sponsored proposals are more successful than the private engagement activities performed by asset managers. However, it is also likely that SRI investors engage with target management prior to filing their proposals and that proposal filing is the last resort when previous engagement attempts fail. Therefore, a sample that includes these prior engagements would naturally exhibit a lower success rate.

Table 2(b) details the sample of SRI proposals by industry. Firms in the manufacturing industry (45%) are the most targeted by these proposals. This can be explained by the fact that manufacturing firms are most likely to be involved in pollution and climate change issues as well as labor issues. Approximately 2/3 of the proposals target industries including mining, construction, manufacturing and transportation; the other 1/3 target trading, finance and service firms. The success rate is highest for trading and service targets, followed by mining. The success rate of the ES sub-sample for manufacturing and construction is lower than for finance and service industries, possibly because ES proposals for these targets are more costly and harder to implement. ES proposals are more likely to be associated with real action plans, for example, Calvert fund (one of the largest social funds in the sample) filed a proposal on climate change to Consumer Energy, which requires retiring old property and equipment.

[5] Three proposals of 13 are resubmissions after achieving majority vote for the first time.

Table 2(b): Summary of proposals by industry

This table summarizes shareholder proposals by industry. The classification is obtained by industry SIC code. "Transportation" includes Transportation, Electric and Gas. "Financial" includes Finance, Insurance and Real Estate.

Industry	Full sample			ES sub-sample			CG sub-sample		
	No.	% sample	% success	No.	% sample	% success	No.	% sample	% success
Mining	43	5.8%	48.8%	40	5.4%	50.0%	3	0.40%	33.30%
Construction	3	0.4%	33.3%	3	0.4%	33.3%	0	0.00%	0.00%
Manufacturing	335	45.0%	42.1%	302	40.6%	40.4%	33	4.40%	57.60%
Transportation	96	12.9%	35.4%	84	11.3%	34.5%	12	1.60%	41.70%
Wholesale Trade	10	1.3%	60.0%	10	1.3%	60.0%	0	0.00%	0.00%
Retail Trade	110	14.8%	46.4%	104	14.0%	44.2%	6	0.80%	83.30%
Finance	94	12.6%	46.8%	71	9.5%	52.1%	23	3.10%	30.40%
Services	51	6.9%	52.9%	42	5.6%	54.8%	9	1.20%	44.40%
Non-classifiable	2	0.3%	0.0%	0	0.0%	0.0%	2	0.30%	0.00%
Total/ Average	**744**	**100%**	**43.7%**	**656**	**88%**	**43.3%**	**88**	**12%**	**46.6%**

As previously mentioned, successful proposals can be of two types: those withdrawn before the AGM and those that reached the AGM and received a majority vote. Table 3 summarizes the success rates and the percentage of vote in favor of those two categories of proposals. According to data, withdrawn proposals exhibit a success rate of 75.5%. Unsuccessful withdrawals are mainly due to omission on technicality issues or when the agreement is symbolic, and the activists choose to file the proposal again the following year. This result is largely in line with other findings showing that success for withdrawals is a good indicator for social change outcome.[6] The success rate is slightly higher for ES than for CG proposals.

Proposals reaching the voting stage exhibit a significantly lower success rate, particularly for the ES sample. Typically, shareholder proposals do not obtain a very high approval rate

[6] See Tkac (2006), who reports that 79 percent of withdrawn proposals on social changes were followed by a concrete outcome.

during the AGM. Data shows that, on average, SRI-sponsored proposals receive 21.7% of the votes when the ES and the CG samples receive 20.2% and 31.9% of the votes, respectively. For the entire sample, only 3.6% of the proposals obtain a majority vote. The low passing rate suggests that the management is not likely to settle the issue before voting for the fear of losing the vote, in the case of successful withdrawn proposals. The management would prefer the exclusion of the issue in the proxy material to reduce potential negative image exposure. Interestingly, only 1% of the ES proposals are approved by a majority vote, while 21.7% of CG proposals get approved. One explanation for this result is that CG issues are usually more transparent in nature and less costly to implement, thus easier to get approved by shareholders. Approximately 40% of the proposals in the sample receive more than 25% of the votes. Few proposals exhibit a low percentage of the vote in their favor; approximately 1% of the proposals receive less than 1% of the votes, and 6% receive between 3% and 6% of the votes. This result could be important, since a proposal must receive at least 3% of the vote on its first submission and 6% on its second submission to avoid exclusion from subsequent filings. This implies that the vast majority (93%) of the proposals in our sample are qualified for potential resubmission. Glac (2010) has shown proposals receiving a low percentage of vote can turn out to be successful in the future. Therefore, the success rate reported in Table 3 represents a conservative measure of the desired outcome achieved by the proposals.

Table 3: Summary of proposal outcome

This table summarizes the proposal outcome. Success rates for the full sample and ES and CG sub-samples are reported. The success rate for the withdrawn proposals and proposals going to vote are reported separately. The average vote in favor for proposals going to vote is also reported. Finally, we report the distribution of the vote in favor for those proposals.

	Full sample	ES sub-sample	CG sub-sample
Total number of proposals	744	656	88
Success rate	43.7%	43.3%	46.6%
Number of withdrawn	384	342	42
Success rate	75.5%	76.0%	71.4%
Number of go to voting	360	314	46
Success rate	2.8%	0.6%	17.4%
Average vote in favor	21.70%	20.20%	31.90%
Vote in favor < 3%	1.1%	0.6%	4.3%
3% ≤ Vote in favor < 6%	6.1%	6.7%	2.2%
6% ≤ Vote in favor < 10%	22.8%	22.9%	21.7%
10% ≤ Vote in favor < 25%	27.5%	29.3%	15.2%
25% ≤ vote in favor < 50%	38.9%	39.5%	34.8%
Vote in favor ≥ 50%	3.6%	1.0%	21.7%

3.2.2 Target firm characteristics

One important issue when studying SRI activism is to examine whether SRI activists target certain types of firms. Tables 4(a), 4(b) and 4(c) report the univariate analysis of the difference in mean between the target firm characteristics and a sample of matched firms. The latter is created from all available firms in the Compustat database following the matching techniques of Brav et al. (2008). First, the Compustat sample is divided into 10x10 size and market-to-book sorted percentile portfolios. Second, the target firms are removed from the data set, and we construct a pool of matching firms with the same year, industry (by 3-digit SIC), sample size and market-to-book percentile portfolios. If no matching firm is retained by these criteria, the matching requirement is relaxed to 5x5 size and market-to-book sorted portfolios. Finally,

for each target firm, a pseudo-matched firm is created by averaging the firm characteristics across all the matched firms. The characteristics are measured in the year before the proposal. The average difference between the target firm and the matched group is calculated as follows:

$$Diff_i = X_i - 1/m \sum_{j=1}^{m} Xj$$

where X is defined as a characteristic variable, and firms j=1, …, m are from the matching group.

Table 4(a) reports univariate analysis of targeting results for the entire sample, while 4(b) and 4(c) report results for the ES sub-sample and CG sub-sample, respectively. Column (1) reports the number of observations, and Columns (2) and (3) report mean characteristics for the target firms and matched firms respectively. Column (4) reports the significance level of the difference in mean. The discussion in this section focuses on the results for the entire sample, but the results for CG and ES sub-samples are similar.

Table 4 (a): Characteristics of target firms for the whole sample

This table reports the univariate analysis of target firm characteristics, compared to the matched firms for the entire sample. The difference is calculated using: $Diff_i = X_i - 1/m \sum_{j=1}^{m} Xj$. Columns (2) – (3) provide summary statistics (mean value) for the target and matched firms. Column (4) reports the test for the difference in mean between the two samples. ***, ** and * represent significance at the 1%, 5% and 10% levels. All variables are winsorized at the 1st and 99th percentile.

Firm characteristics	Obs	Target firms	Matched firms	Sig. level
	(1)	(2)	(3)	(4)
Firm Size	630	60.28	16.86	***
Market-to-book	630	5.22	4.42	
Tobin's Q	626	2.70	2.66	
Firm age	630	36.66	24.43	***
Sales growth	627	7.9%	15.0%	***
Stock return	568	12.6%	20.78%	***
Stock return volatility	511	0.08	0.09	***
Return on assets	625	0.17	0.16	*
Asset turnover	630	1.00	0.98	
Sales over employees	619	0.71	0.85	
Cash flow	623	0.12	0.11	**
Leverage	626	0.36	0.34	**
Cash holding	614	0.08	0.09	***
Dividend yield	625	0.02	0.02	
Dividend payout	627	0.37	0.30	
R&D expenditure	318	0.03	0.04	**
Capital expenditure	618	0.06	0.07	***
Advertising expenditure	630	0.02	0.01	
Industry Herfindahl index	630	0.26	0.12	***
Shareholding of pension activists	630	2.1%	1.19%	***
Shareholding of SRI funds	630	0.10%	0.07%	*
Shareholding of SRI activist	630	0.09%	0.07%	*
Amihud illiquidity	511	0.001	0.02	***
Entrenchment index	223	1.03	1.42	***
Number of SRI funds	630	3.63	1.07	***
Number of SRI activist funds	630	2.55	0.70	***
Number of pension activists	630	11.13	5.86	***
Tangibility	626	0.31	0.30	
Market share (segment)	630	0.12	0.05	***
KLD	402	0.21	0.051	***
KLD strengths	402	1.25	0.655	***
KLD concerns	402	1.04	0.605	***

Table 4(b): Characteristics of target firms for the ES sub-sample

This table reports the univariate analysis of target firm characteristics, compared to the matched firms for the ES sub-sample. The difference is calculated using: $Diff_i = X_i - 1/m \sum_{j=1}^{m} Xj$. Columns (2) – (3) provide summary statistics (mean value) for the target and matched firms. Column (4) reports the test for the difference in mean between the two samples. ***, ** and * represent significance at the 1%, 5% and 10% levels. All variables are winsorized at the 1st and 99th percentile.

Firm characteristics	Obs	Target firms	Matched firms	Sig. level
	(1)	(2)	(3)	(4)
Firm Size	491	60.27	16.90	***
Market-to-book	491	5.67	4.31	
Tobin's Q	487	2.69	2.62	
Firm age	491	37.61	24.48	***
Sales growth	489	8.2%	15.1%	***
Stock return	447	13.9%	20.45%	***
Stock return volatility	400	0.07	0.09	***
Return on assets	486	0.17	0.17	**
Asset turnover	491	1.05	1.01	
Sales over employees	485	0.74	0.87	
Cash flow	485	0.12	0.12	**
Leverage	487	0.35	0.34	
Cash holding	476	0.08	0.09	***
Dividend yield	487	0.02	0.02	
Dividend payout	488	0.41	0.33	
R&D expenditure	251	0.03	0.04	**
Capital expenditure	482	0.06	0.07	**
Advertising expenditure	181	0.03	0.04	***
Industry Herfindahl index	491	0.27	0.12	***
Shareholding of pension activists	491	2.1%	1.14%	***
Shareholding of SRI funds	491	0.11%	0.07%	**
Shareholding of SRI activist	491	0.10%	0.07%	**
Amihud illiquidity	405	0.001	0.02	***
Entrenchment index	175	1.05	1.38	***
Number of SRI funds	491	3.65	1.02	***
Number of SRI activist funds	491	2.54	0.68	***
Number of pension activists	491	11.36	5.75	***
Tangibility	488	0.33	0.33	
Market share (segment)	491	0.12	0.05	***
KLD	304	0.20	0.08	*
KLD strengths	304	1.20	0.67	***
KLD concerns	304	1.00	0.59	***

Table 4(c): Characteristics of target firms for the CG sub-sample

This table reports the univariate analysis of target firm characteristics, compared to the matched firms for the CG sub-sample. The difference is calculated using: $Diff_i = X_i - 1/m \sum_{j=1}^{m} Xj$. Columns (2) – (3) provide summary statistics (mean value) for the target and matched firms. Column (4) reports the test for the difference in mean between the two samples. ***, ** and * represent significance at the 1%, 5% and 10% levels. All variables are winsorized at the 1st and 99th percentile.

Firm characteristics	Obs	Target firms	Matched firms	Sig. level
	(1)	(2)	(3)	(4)
Firm Size	139	60.33	16.74	***
Market-to-book	139	3.66	4.79	**
Tobin's Q	139	2.76	2.82	
Firm age	139	33.29	24.25	***
Sales growth	138	6.9%	14.8%	***
Stock return	121	11.0%	21.98%	***
Stock return volatility	105	0.10	0.11	**
Return on assets	139	0.16	0.16	
Asset turnover	139	0.83	0.89	
Sales over employees	134	0.64	0.77	
Cash flow	138	0.11	0.11	
Leverage	139	0.40	0.34	***
Cash holding	138	0.09	0.11	
Dividend yield	138	0.02	0.02	
Dividend payout	139	0.21	0.20	
R&D expenditure	67	0.05	0.05	
Capital expenditure	136	0.05	0.06	**
Advertising expenditure	69	0.03	0.03	
Industry Herfindahl index	139	0.22	0.11	***
Shareholding of pension activists	139	2.0	1.34%	***
Shareholding of SRI funds	139	0.06%	0.07%	
Shareholding of SRI activist	139	0.05%	0.07%	
Amihud illiquidity	106	0.00	0.03	*
Entrenchment index	48	0.96	1.54	**
Number of SRI funds	139	3.51	1.26	***
Number of SRI activist funds	139	2.56	0.81	***
Number of pension activists	139	10.29	6.27	***
Tangibility	136	0.23	0.23	
Market share (segment)	139	0.13	0.06	***
KLD	98	0.25	(0.05)	**
KLD strengths	98	1.41	0.60	***
KLD concerns	98	1.16	0.65	***

Equity holdings of SRI activists are generally small. On average, SRI activists hold 0.1% of the shares in the target firm. However, pension fund activists seem to be more involved in target firms with an average shareholding of 2.1%.

Unlike hedge funds activists or other entrepreneurial activists who target medium or small-sized firms,[7] the data show firms targeted by SRI are larger and more mature firms with lower sales growth and larger markets than comparable matched firms. This is consistent with Dimson et al. (2015), who show that CSR engagements are more likely to target larger firms, as the activists may rely on economies of scale and benefit from reputational concerns faced by large firms. These reputational concerns may explain why activists target larger and more mature firms for ESG proposals as well. One important goal of a proposal is to raise an issue and hopefully open the door to bilateral communication with the target management for improvement. SRI investors do not need considerable shareholdings in target firms to gain power for intervention as other activists do. Wei (2017) shows that ES proposals filed by social funds achieve 40% success rate, while other filers obtain only around 30%. Activists may also launch campaigns to draw media attention and use it to negotiate with the management of target firms.

Profitability, as measured by a lower stock return, is significantly lower for target firms than for matched firms. This strategy of targeting less profitable firms is consistent with pension fund activism (Smith (1996)) and entrepreneurial activism (Klein and Zur (2009)) but different from hedge fund activism (Brav et al. (2008)). Target firms seem to be less efficient, as measured by a lower sales-over-employee ratio, than matched firms, although the difference is not significant. The is consistent with Dimson et al. (2015).

[7] As discussed in Brav et al. (2008) and Klein and Zur (2009).

Target firms have significantly lower capital expenditure and R&D expenses than matched firms. It seems that these large, mature firms are less prone to innovation and heavy investment into sustainable future businesses. The higher dividend payout ratio also shows that the target firms prefer distributing the profits over reinvesting compared with the matched firms, which is consistent with lower capital expenditures. However, given their size, one can expect that these firms have the necessary resources for these investments. Thus, SRI activists may choose to target these firms to incentivize their actions.

Target firms exhibit significantly higher advertising expenditures than the matched firms for the ES sub-sample. This suggests that environmental and social proposal target firms may be more concerned with their image and reputation. Servaes and Tamayo (2013) show that CSR and firm value are positively related for firms with high customer awareness, as measured by advertising expenditures. SRI activists target these firms, as they are more concerned about CSR and could potentially benefit more from these changes. The target firms in my sample have lower scores in the entrenchment index compared to the matched firms, which suggests that they may be better managed. This finding is consistent with Dimson et al. (2015).

3.2.3 Institutional and activist equity holdings

SRI shareholders own, on average, a small percentage of the target firm shares, yet the average shareholdings of SRI investors and activist SRI investors are significantly higher for target firms than for matched firms. The same conclusion holds when considering the number of SRI investors and activist SRI investors. As we know, pension activists also play a role in activism. Compared to matched firms, target firms exhibit a significantly higher proportion of shares held by pension fund activists. They also have a larger number of activists present in the

firm. When SRI activists file a proposal to a target firm, pension fund activists are among the shareholders of the target firm in approximately 80% of the time. This suggests that there could be potential collaboration between SRI and pension activists for filing ESG shareholder proposals. As SRI activists have expertise in ESG proposal filing, it could be that they act as representatives for pension activists, particularly when they themselves only hold a small percentage of shares in the target firms.

The potential collaboration between SRI activists and pension activists is in line with the benefit of holding larger shareholding to voting power. Dimson et al. (2015) discuss the collaboration effect of multiple parties in CSR engagements. They find that cooperation with hard collaborators (usually activists) leads to a higher success rate than soft collaborators (usually passive principals). In addition, collaborative engagements in general lead to higher success rates than engagements with no cooperation. According to our sample, the favorable votes for target firms when SRI activists have shareholdings in the firm (24.7%) is higher than when they do not (18.9%). The favorable votes are also significantly higher when pension activists have shareholdings in the firm (22.4%) than when they do not (15.5%). It is likely that the filers pay more attention to the proposals of the firms that are more important to them, and thus these proposals receive more favorable votes. The favorable vote is the highest when SRI and pension activists are both shareholders (24.7%), while the favorable vote is the lowest (15.4%) when they are not.[8]

[8] These SRI activists still fulfill the minimum eligibility requirements for filing a shareholder proposal, but given the very small size of these holdings, in some cases, they are not shown in #S12 data.

4. Empirical analysis

The previous section provides a univariate analysis of the target firms' characteristics. This section examines the decision of SRI funds to target certain firms and the short and long-term effects of ESG proposals.

4.1. Target firm characteristics

First, we perform a multivariate analysis to determine the impact of firm individual characteristics on the fact whether it is a target by SRI funds. We estimate a probit model of the form:

$$Target = \beta_0 + \sum_{k=1}^{k} \beta_k X_{ki}$$

where the dependent variable, *Target*, is equal to 1 if the firm is targeted by a SRI fund, and 0 otherwise in a given year, and *X* is a vector of firm specific characteristics. Tables 5(a) and 5(b) report the marginal effects of each individual characteristic on the probability of being a target. Table 5(a) reports the results for the entire sample using two different models. Columns (1) and (4) report the marginal effects, Columns (2) and (5) report the significance level, and Columns (3) and (6) report the t-Statistics.

Table 5(a): Probit analysis of the probability of being a target firm: Full Sample

This table displays the target probit regression based on the full sample on the specification of:

$$Target_i = \beta_0 + \sum_{k=1}^{k} \beta_k X_{ki} + \varepsilon_i$$

The dependent variable (*Target*) is a dummy variable equal to 1 if a firm is the target of a shareholders' proposal, and 0 for the matched firm. The independent variables are the firm characteristics measured the year before a proposal is filed. Columns (1) - (6) report tests using two different models for the full sample. Year and firm fixed effects are included. Standard errors are clustered at the firm level. All variables are winsorized at the 1st and 99th percentile levels. Columns (2) and (5) reports the statistical significance for the marginal effect coefficient, ***, ** and * represent significance at the 1%, 5% and 10% levels.

Firm characteristics	**Model (1)**			**Model (2)**		
	Marginal effect	**Sig. level**	**t-stat**	**Marginal effect**	**Sig. level**	**t-stat**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Size	0.000	***	(2.59)	0.000		(0.98)
Tobin's q	-0.012		(-0.85)	-0.025	*	(-1.89)
Age	0.003	*	(1.73)	0.000		(0.29)
Sales growth	-0.333	***	(-2.93)	-0.101		(-0.82)
Stock return	0.007		(0.15)	0.216		(0.23)
Stock return volatility	0.061		(0.10)	-0.018		(-0.37)
Return on assets	1.156	*	(1.96)	2.044	***	(3.23)
Asset turnover	0.024		(0.75)	-0.013		(-0.37)
Sales over employees	0.000		(0.02)	0.000		(0.41)
Cash flow	-0.752		(-1.25)	-1.809	***	(-2.67)
Leverage	0.032		(0.20)	-0.127		(-0.88)
Cash holding	0.412		(1.42)	0.527	**	(2.02)
Dividend yield	-3.232	*	(-1.68)	0.112	**	(2.17)
Dividend payout	0.026	**	(2.37)	-5.666	**	(-2.35)
R&D expenditure	-1.037		(-1.44)	-0.1		(-0.13)
Capital expenditure	-2.717	***	(-3.14)	-2.325	***	(-2.72)
Advertising expenditure	-0.7		(-1.14)	-0.409		(-0.82)
Shareholding of pension activists	-0.003		(-0.09)	-0.004		(-0.11)
Shareholding of SRI funds	-0.027		(-0.08)	-0.32		(-1.01)
Shareholding of SRI activist	-0.015		(-0.04)	0.334		(0.96)
Amihud illiquidity	-0.684		(-1.17)	0.267		(1.23)
Number of SRI funds	-0.029		(-0.97)	-0.018		(-0.68)
Number of SRI activist funds	0.126	***	(3.35)	0.117	***	(2.99)
Number of pension activists	0.01		(0.94)	0.044	***	(5.22)
Tangibility	0.369		(1.64)	0.536	**	(2.45)
KLD	-0.052		(-1.58)	-0.071	**	(-2.47)
KLD concerns	0.015		(0.31)	0.077		(1.57)
Entrenchment index				0.021		(0.94)
Market share (segment)				0.165		(0.76)
R-squared	0.42			0.52		
N	559			341		

The results confirm the univariate analysis. Model 1 reveals that firm size and age are significantly positive, indicating that the probability of being targeted increases with firm size and age. Firms with a higher return on assets, dividend payout and yield also have a higher probability of being targeted. However, firms with higher sales growth and capital expenditures have a lower probability of being targeted. This suggests that firms with lower capital spending are more likely to be targeted, which is consistent with our previous analysis. The coefficient for R&D expenses is also negative but not significant. Finally, the likelihood of being a target increases significantly with the number of SRI activists present in the firm. This is consistent with the fact that SRI activists focus their expertise on their portfolio firms and that they potentially collaborate with each other.

Model 2 for the full sample confirms the results of Model 1 and suggests that the likelihood of being a target firm also increases with the level of cash flows and cash holding generated by the firm. This suggests that firms with strong cash flow capacities are in a better position and more likely to implement the issues addressed by the proposals. In addition, the coefficient for the number of pension activists is positive and significant. This further enhances the potential collaboration argument between SRI and pension activists. The coefficient for the KLD score is negative and significant. This is consistent with the fact that SRI activists target firms with lower social scores for which there is room for improvement.

Table 5(b): Probit analysis of the probability of being a target firm: ES and CG Samples

This table displays the target probit regression on the two sub-samples (ES and CG) based on the specification of:

$$Target_i = \beta_0 + \sum_{k=1}^{k} \beta_k X_{ki} + \varepsilon_i$$

The dependent variable (*Target*) is a dummy variable equal to 1 if a firm is the target of a shareholders' proposal, and 0 for the matched firm. The independent variables are the firm characteristics measured the year before a proposal is filed. Columns (1) - (3) report the results for the ES sub-sample while Columns (4) – (6) report for the CG sub-sample. Year and firm fixed effects are included. Standard errors are clustered at the firm level. All variables are winsorized at the 1st and 99th percentile levels. Columns (2) and (5) reports the statistical significance for the marginal effect coefficient, ***, ** and * represent significance at the 1%, 5% and 10% levels.

Firm characteristics	**ES sub-sample**			**CG sub-sample**		
	Marginal effect	**Sig. level**	**t-stat**	**Marginal effect**	**Sig. level**	**t-stat**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Size	0.000	***	(3.61)	0.000	***	(4.69)
Tobin's q	-0.024		(-1.47)	0.089	***	(3.95)
Age	0.004	**	(2.27)	0.001		(0.54)
Sales growth	-0.343	***	(-2.91)	-0.997	***	(-3.21)
Stock return	0.452		(0.68)	0.75		(0.84)
Stock return volatility	0.065		(1.07)	-0.253	***	(-3.59)
Return on assets	0.778		(1.23)	0.824		(0.82)
Asset turnover	0.016		(0.49)	-0.143	**	(-2.30)
Sales over employees	0.000		(-0.56)	0.001	***	(3.87)
Cash flow	0.224		(0.33)	-0.473		(-0.67)
Leverage	0.159		(1.08)	-1.022	**	(-2.39)
Cash holding	0.545		(1.69)	0.592		(1.16)
Dividend yield	0.044	**	(2.03)	-0.157	**	(-2.29)
Dividend payout	-3.339	*	(-1.73)	-0.529		(-0.21)
R&D expenditure	-1.324	*	(-1.89)	-6.078	***	(-3.97)
Capital expenditure	-2.471	***	(-2.74)	-5.269	**	(-2.27)
Advertising expenditure	-0.817		(-1.34)	-3.673	**	(-2.29)
Shareholding of pension activists	0.004		(0.13)	0.183	**	(2.28)
Shareholding of SRI funds	0.379		(1.05)	9.457	***	(3.87)
Shareholding of SRI activist	-0.421		(-1.08)	-13.957	***	(-4.17)
Amihud illiquidity	-0.391		(-1.35)	-55.848	**	(-2.15)
Number of SRI funds	0.007		(0.25)	-0.339	***	(-7.82)
Number of SRI activist funds	0.088	**	(2.47)	0.619	***	(8.49)
Number of pension activists	0.007		(0.66)	0.013		(0.97)
Tangibility	0.284		(1.26)	-0.294		(-0.64)
KLD	-0.096	***	(-2.96)	-0.123	*	(-1.93)
KLD concerns	-0.025		(-0.58)	-0.306	***	(-2.82)
Entrenchment index						
Market share (segment)						
R-squared	0.47			0.72		
N	430			124		

Table 5(b) reports the results of the regression analysis for the ES and CG sub-samples. The results for the ES sample are similar to those for the full sample. The CG sample also confirms these results, with more independent variables being significant. For instance, the CG sample shows a significant negative loading on the illiquidity measure, indicating that SRI activists have a higher probability of targeting more liquid firms.

Table 5(c) reports the regression results where the dependent variable is a dummy variable is equal to 1 if the proposal is ES-related, and 0 otherwise (CG). The results show that the likelihood of filing an ES-related proposal increases with age, cash flows and whether the firm is more illiquid and has more tangible assets. It is negatively related to the return on assets, the level of cash, advertising expenditures and the KLD score.

Table 5(c): Probit analysis of the probability of being a target firm: ES and CG Samples

This table displays the ES vs. CG target probit regression based on the specification of:

$$ES_i = \beta_0 + \sum_{k=1}^{k} \beta_k X_{ki} + \varepsilon_i$$

The dependent variable (*ES*) is a dummy variable equals to 1 if the proposal is ES related, and 0 if CG related. Independent variables are the firm characteristics measured the year before proposal is filed. Year and firm fixed effects are included. Standard errors are clustered at the firm level. All variables are winsorized at the 1st and 99th percentile levels. Columns (2) and (5) reports the statistical significance for the marginal effect coefficient, ***, ** and * represent significance at the 1%, 5% and 10% levels.

Firm characteristics	**ES - CG**		
	Marginal effect	**Sig. level**	**t-stat**
	(1)	**(2)**	**(3)**
Size	0.000		(0.00)
Tobin's q	0.011		(0.75)
Age	0.003	*	(1.84)
Sales growth	0.144		(1.11)
Stock return	-0.547		(-0.60)
Stock return volatility	-0.002		(-0.03)
Return on assets	-1.331	*	(-1.75)
Asset turnover	-0.054		(-1.26)
Sales over employees	0.000	*	(1.69)
Cash flow	1.589	*	(1.78)
Leverage	0.165		(1.24)
Cash holding	-0.625	**	(-2.19)
Dividend yield	0.066	*	(1.66)
Dividend payout	-3.128		(-1.46)
R&D expenditure	0.221		(0.23)
Capital expenditure	-0.703		(-0.59)
Advertising expenditure	-1.275	*	(-1.89)
Shareholding of pension activists	0.018		(0.52)
Shareholding of SRI funds	-0.85		(-1.33)
Shareholding of SRI activist	1.222		(1.52)
Amihud illiquidity	58.619	*	(1.66)
Number of SRI funds	0.008		(0.34)
Number of SRI activist funds	0.008		(0.23)
Number of pension activists	-0.009		(-0.92)
Tangibility	0.683	**	(2.51)
KLD	-0.071	**	(-2.52)
KLD concerns	-0.063		(-1.31)
Entrenchment index			
Market share (segment)			
R-squared	0.29		
N	283		

4.2. Short-term market reaction

The second issue examined in this paper has to do with how the market reacts to SRI sponsored ESG shareholder proposals. Market reaction is a direct measure of how investors view the success of shareholder activism.

4.2.1. Proxy filing date

Following Gillan and Starks (2000), the proxy filing date is chosen as the event date, since this corresponds to the date at which the market learns about the shareholder proposal. We use the market model and the four-factor model event study methodologies to study the short-term market reaction around the filing date. The models are estimated over 255 days, beginning 46 days before the event date. We calculate CAR over the event window on the date of filing, (-1, +1) and (-10, 0), taking into account possible information leakage of proposal contents before the filing date. The results are reported in Tables 6(a) and 6(b). For simplicity, we report only the alphas and related statistics, but we omit the coefficients on other market or four-factor variables. The reported results are based on an equal-weighted portfolio using the four-factor model. They are robust to alternative methodologies such as value-weighted portfolios or the market model. Statistical significance is measured using the Standardized Cross-sectional Test (Boehmer et al 1991) and Generalized Sign Test (Cowan 1992).

Table 6(a): Abnormal return for ESG proposals around the filing date

This table reports summary statistics on the short-term market reaction for ESG shareholder proposals around the filing date. We examine the abnormal return on the filing date (t=0) and over an event window of (-1, +1) and (-10, 0). Column (1) reports the result for the full sample, while Columns (2) and (3) report the results for the ES and CG sub-samples. Columns (4) and (5) report the results for the initial and repeated filings. For each test, standard cross-sectional test and generalized Z test scores (significance marketed in brackets) are reported for computation statistical significance. t-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels.

		Full sample (1)	ES sample (2)	CG sample (3)	Initial Filing (4)	Repeated Filing (5)
Date of filing	**(t=0)**	0.22%***	0.18%**	0.37%*	0.28%***	0.06%
	StdCsect	(2.93)	(2.25)	(1.96)	(2.89)	(0.91)
	Sign Z	(1.97)	(2.01)	(0.41)	(2.35)	(-0.04)
Days	**(-1, +1)**	0.21%*	0.20% (***)	0.24%	0.26%	0.07% (*)
	StdCsect	(1.78)	(1.54)	(0.91)	(1.43)	(1.08)
	Sign Z	(2.34)	(2.60)	(0.09)	(1.57)	(1.91)
Days	**(-10, 0)**	0.29**	0.23%*	0.53% (*)	0.0018	0.58%***
	StdCsect	(2.01)	(1.65)	(1.17)	(0.55)	(2.85)
	Sign Z	(1.90)	(1.18)	(1.84)	(1.13)	(1.77)
N		727	570	157	522	205

Table 6(a) reports that, on the date of filing (t=0), the market reaction as measured by the alpha is positive and significant for the full sample and sub-samples with the exception of the repeated filings sample. For the full sample, the abnormal return on the filing date is 0.22% and is significant at the 1% level. The average market capitalization for the sample is around 60 billion USD, i.e. the market reaction on the date of filling for the sample firms on average is a sizable amount of around 133 million USD. The CG sub-sample exhibits a CAR of 0.37%, while the ES sub-sample offers a relatively lower CAR of 0.18%.

The initial filing sample is composed of shareholder proposals filed for the first time by the same SRI activist for the same issue to the same target firm, while repeated filings refer to those proposals that have been filed in previous years. The analysis shows that initial filings

exhibit a significant positive CAR of 0.28%. A test of the difference in mean confirms that this is higher than for the full sample and significant at the 1% level. The only type of proposals that does not generate a significant market reaction on the filing date are the re-filed proposals. This may be explained by the fact that these proposals have already been filed in previous years and that the market has already incorporated this information in the share price or has reacted early.

The results for the event window (-10, 0) provide some support for this explanation. Indeed, the re-filed proposals offer, on average, a 0.58% CAR, and this is significant at the 1% level. Among all samples, the sample of re-filed proposals offers the highest CAR. The CAR over this window is also larger than the one on the filing date for any sample of firms. This may be because market values more re-filed proposals by expecting a better outcome. The CAR for the full sample for the (-10, 0) window is 0.29% and significant at the 5% level. The CAR for the ES and CG sub-samples are also positive and significant. The sample of initial filings is the only sample that does not generate a positive and significant CAR for that window.

Finally, for the (-1, +1) window, the full sample offers a CAR of 0.21% while the ES sub-sample offers a CAR of 0.2%. These are both significant. The re-filed sample offers a lower CAR of 0.07%. The CG and initial filing samples do not generate a positive and significant CAR. One should note that there are 47 firms in the sample that receive more than one proposal in certain years.[9]

Overall, these results show that the market reacts positively to ESG proposals. The market anticipates that these proposals create value for the target firms and incorporates this

[9] Un-tabulated results confirm that the sample without the duplicates earns similar CAR.

information in the share price. The CG sample earns higher abnormal returns than the ES sample, which suggests that the market has a more positive view of CG proposals, probably because they are easier to implement. As ESG proposals are getting more and more attention over the years, in the untabulated results, we show that the market reaction for these proposals are stronger for the 2006 to 2015 sample, than for the 1996 to 2005 sample.

4.2.2. Meeting date

As we have seen, firms targeted by ESG shareholder proposals generate, on average, a significant positive abnormal return around the filing date. Although negotiations with the target management to withdraw the proposal usually occurs before the filing date (when the target firm files with the SEC), it is still possible for the two parties to reach an agreement on a proposal between the filing and the voting dates, thus allowing an SRI activist to withdraw their proposal. On the meeting date, all proposals that have not been withdrawn are submitted to a shareholders' vote, and the result of the vote (percentage in favor of the proposal) is revealed to the market. I test the market reaction for target firms for the period from the filing date to the meeting date. We first conduct the analysis for the full sample and then divide the sample into successful and unsuccessful proposals, where a success refers to proposals that have either been withdrawn before the meeting date or accepted by a majority vote. Table 6(b) reports the abnormal return around the meeting date by outcome.

Table 6(b): Abnormal return for ESG proposals around the meeting date

This table reports summary statistics on the short-term market reaction for ESG shareholder proposals around the meeting date. We examine the abnormal return on the meeting date (t=0) and over an event window of (-1, +1) and (-10, 0). Column (1) reports results for the full sample, while Columns (2) and (3) report the results for the sub-samples of successful and unsuccessful proposals. For each test, standard cross-sectional test and generalized Z test scores (significance marketed in brackets) are reported for computation statistical significance. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels.

		Full Sample (1)	Successful sample (2)	Unsuccessful sample (3)
Date of meeting	**(t=0)**	-0.01%	-0.03%	0.01%
	StdCsect	(0.74)	(0.11)	(0.82)
	Sign Z	(0.22)	(-0.58)	(0.76)
Days	**(t-1, t+1)**	0.33%***	0.44%**	0.25%**
	StdCsect	(3.26)	(2.37)	(2.30)
	Sign Z	(2.60)	(1.89)	(1.81)
Days	**(t-10, t)**	0.24%	0.45%	0.10%(*)
	StdCsect	(1.55)	(1.04)	(1.15)
	Sign Z	(1.63)	(0.48)	(1.72)
N		725	289	436

At the meeting date, none of the samples exhibit a CAR significantly different than zero. However, if we extend the even window around the meeting date to (-1, +1), the full sample of the target firms exhibit significant abnormal returns of 0.33%. This is significant at the 1% level. Both sub-samples of firms with successful and unsuccessful proposals also report a positive and significant abnormal return, with successful proposals being associated with a larger abnormal return than unsuccessful proposals, although the difference is not significant. We also look at the (-10, 0) event window to examine whether the market has already reacted before the meeting date. Overall, the CARs are not significantly different than zero, except for the unsuccessful sample, which shows a CAR of 0.10%, significant at the 10% level.

We then analyze the cross-sectional variation of abnormal returns associated with successful proposals around the meeting date using both univariate (t-test) and multivariate analysis. The top part of Table 6(c) reports the results of the univariate analysis of the difference in CAR

between the samples of successful and unsuccessful proposals. The test is conducted for the full sample and the two sub-samples of withdrawn and going to vote proposals. There is no statistical difference in the CAR in the full sample and sub-sample of withdrawn proposals. However, over the event window (-1, +1), successful proposals exhibit a significantly (at the 5% level) higher CAR than proposals that are voted at the assembly.

The bottom part of Table 6(c) reports the regression results of the determinants of CAR at (t=0) or around (-1, +1) the meeting date. We run the following linear regression:

$$CAR_{itr} = \beta_0 + \beta_1 * Success_{itr} + \beta_2 * X_{it} + \varepsilon_{itr}$$

where the dependent variable, *CAR* at or around the meeting date, is regressed on a dummy variable, *Success*, which is equal to 1 if the proposal is successful, and 0 otherwise, and *X* is a vector of control variables include size, age, institutional ownership, sales growth, cash and leverage. Firm fixed effects and year fixed effects are also used. The results confirm the univariate analysis that successful proposals generating a positive CAR around meeting date are only those going to vote, while those withdrawn before the meeting generate no positive CAR around the meeting date. This is consistent with the informational efficiency of financial markets, whereby any relevant information about the successfully withdrawn proposals has already been incorporated in the price before the meeting date.

Table 6(c): Cross-sectional variation of abnormal return around meeting date

The two tables below report the cross-sectional variation of abnormal return according to the proposal outcome. The first table reports t-tests for the difference in mean CARs for the sub-samples of successful and unsuccessful proposals around the meeting date (t=0) and extended window of (-1, +1). The test results for the full sample are reported in Columns 1 and 2. Columns 3 and 4 report the results for the sample of withdrawn proposals sample, while those for the proposals going to vote are reported in Columns 5 and 6. The second table reports the estimation results of a regression analysis of the CARs around the meeting date on a dummy variable (*Success*) equal to 1 if the proposal is successful, and 0 otherwise, with a set of controls, X_{it}, including size, age, institutional ownership, sales growth, cash and leverage. Firm and years fixed effects are also included. All variables are winsorized at the 1st and 99th percentile levels. T-statistics are in parentheses and ***, ** and * represent significance at the 1%, 5% and 10% levels.

T-test	**Full sample**		**Withdrawn**		**Going to vote**	
Sub-samples	**Date of meeting t=0**	**Extend window (-1,1)**	**Date of meeting t=0**	**Extend window (-1,1)**	**Date of meeting t=0**	**Extend window (-1,1)**
Successful	0.00%	0.45%	-0.03%	0.39%	1.02%	2.44%
Unsuccessful	0.10%	0.33%	0.09%	0.36%	0.10%	0.32%
Difference	-0.10%	0.0012	-0.12%	0.0003	0.91%	2.12%**
T-stat	(-0.74)	(0.58)	(-0.57)	(0.11)	(1.54)	(2.06)
N	647	647	322	322	325	325

$$CAR_{itr} = \beta_0 + \beta_1 * Success_{itr} + \beta_2 * X_{it} + \varepsilon_{itr}$$

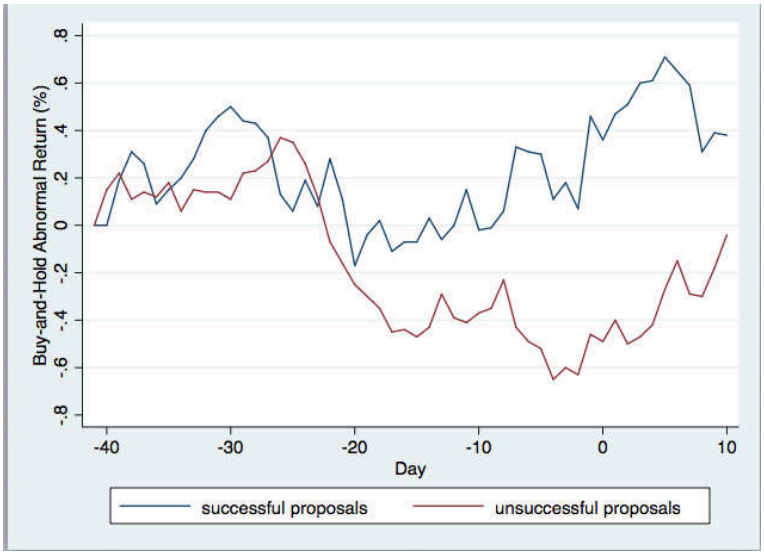
	Full sample		**Withdrawn**		**Going to vote**	
	Date of meeting t=0	**Extend window (-1,1)**	**Date of meeting t=0**	**Extend window (-1,1)**	**Date of meeting t=0**	**Extend window (-1,1)**
Success	(0.00)	0.00	(0.00)	(0.00)	0.01**	0.03**
	(-0.57)	(0.43)	(-0.73)	(-0.21)	(2.70)	(2.78)
Size	0.00	(0.00)	0.00	0.00	0.00	(0.00)**
	(1.21)	(-0.54)	(1.14)	(0.83)	(0.50)	(-2.09)
Age	(0.00)	(0.00)	(0.00)	(0.01)	0.00	0.00
	(-1.47)	(-0.93)	(-0.35)	(-1.37)	(0.09)	(0.70)
Institutional ownership	(0.00)	0.01	(0.00)	0.02**	(0.00)	(0.01)
	(-0.67)	(1.05)	(-0.35)	(2.02)	(-0.84)	(-0.44)
Sale growth	(0.01)	0.00	(0.01)	0.00	(0.01)	0.01
	(-1.21)	(0.13)	(-0.59)	(0.21)	(-1.25)	(0.37)
cash	0.02*	0.01	0.02	0.03	0.00	(0.05)
	(1.70)	(0.43)	(1.18)	(1.27)	(0.12)	(-1.62)
leverage	0.01	0.01	0.00	0.02**	0.01	0.00
	(1.04)	(1.64)	(0.74)	(2.13)	(0.82)	(0.19)
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Firm fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
N	647	647	322	322	325	325

To better understand the economic significance of the market reaction for ESG proposals around the proposal filing date and meeting date, we create a buy-and-hold portfolio from 10 days prior to the filing date to 10 days after the meeting date. Defining day 0 as the meeting date, the event window considered is (-40, 10). Figure 2 reports the buy-and-hold abnormal returns for the two sub-samples of firms with successful and unsuccessful proposals.

The two portfolios generate a similar abnormal return at the start of the event period (-40). Around day -25 (5 days after filing and 25 days before meeting), the buy-and-hold abnormal return of the sample of unsuccessful proposals becomes negative and remains so throughout the event window. This date is likely to be the time at which the market learns about the expected outcome of the proposal. This is consistent with the stylized facts reported in Table 3, which shows that very few proposals obtain majority voting at the shareholders' assembly. In fact, the successful sample is largely composed of successful withdrawn proposals for which the information about an agreement with the management to withdraw the proposal is likely to be made public and incorporated into the market around this time. The sample of successful proposals earns a 0.235% buy-and-hold abnormal return over the event window while the sample of unsuccessful proposals earns a -0.175% return. A t-test of the difference in mean reveals that this difference is statistically significant at the 1% level. Since there are many news and announcements coming out this period of time during the year, one may worry that there are cofounding events driving the difference in results. To rule out potential cofounding events, I test for a shorter period from 10 days before the filing to 20 days after the filing, which does not overlap with earnings announcement for most firms. Events that are likely to be contaminated by earnings announcement are dropped in the test. The results remain similar.

Figure 2: Compound abnormal return for ESG proposals: from filing to meeting date period

This graph reports buy-and-hold abnormal return for ESG proposals from 10-days before filing date to 10-days after the meeting date. Two portfolios are created to test the buy-and-hold abnormal return: target firms with successful proposals and with unsuccessful proposals. T-test testing the mean difference for the two portfolios are shown on the right. ***, ** and * represent significance at the 1%, 5% and 10% levels.



T-test	Mean	t-stat
Successful	0.235%	
Unsuccessful	-0.175%	
Difference	0.410%***	(8.2)

4.2.3. Alternative explanations

One alternative explanation for the short-term positive market reaction to ESG proposals is that SRI activists are good at stock picking, and so other investors follow their strategy to buy the stocks, thus increasing the demand for those stocks and generating a short-term abnormal return. We believe that this explanation is not valid in the context of our study. Indeed, it has been shown that the abnormal return is achieved on the filing date of a proposal by a shareholder activist and not on the date when SRI purchases the stock, which occurred at a much earlier date. In addition, assuming that the effect does not come from the proposals themselves, all sub-samples should earn similar abnormal returns, if any, and the abnormal return should not vary according to the outcome. However, our analysis shows that on the filing

date, the different sub-samples exhibit different abnormal returns and that the abnormal return of the sub-sample of successful proposals differs from the sub-sample of unsuccessful proposals around the date of meeting and for the filing to meeting period. Moreover, SRI investors are usually long-term oriented investors, and most extant literature does not find SRI investors to be superior in stock picking. Thus, we find it unlikely that the abnormal return of ESG proposals is explained by other investors following SRI activists' stock purchases.

Another explanation for the market reaction on the event date relates to the issue of executive compensation. In 2011, the SEC added to the proxy rules that firms should provide shareholders with an advisory vote on executive compensation. Since then, executive pay information is reviewed on the proxy filing date. Thus, one can conjecture that the market reaction is not driven by the filing of an ESG proposal but by the information related to executive compensation. To test this, we restrict our sample only to ES G proposals filed before 2011. The results remain unchanged, and market reaction is not driven by the information on executive compensation.

Finally, it could be argued that market reaction could be driven by other events occurring at the same time of the filing of the proxy statement. For instance, hedge fund activism could have an impact on the market. To test this, we randomly select target firms in the sample and check for potential hedge fund activism using SEC EDGAR schedule 13(d), and we find that none of them overlap with the proxy filing time period of ESG proposals.

4.3. Long-term performance

After having examined the short-term impact of ESG proposals, we now turn to their long-term effect on the performance of the target firms in order to determine whether ESG proposals create enduring value. Long-term performance is measured either from an accounting or a market return approach.

4.3.1. Long-term operating performance

This section follows Dimson et al. (2015), who use a difference-in-difference setting to test the effect of ESG proposals on the operating performance of the target firms 1 or 2 years after the filing of a proposal relative to the year before its filing. We first run the following regression:

$$Y_{itr} = \beta_0 + \beta_1 * Success_{itr} + \beta_2 * Post_{it} + \beta_3\, Post_{it} * Success_{itr}$$
$$+ \beta_4 * Size_{itr} + \beta_5 * Age_{itr} + \beta_6 * Leverage_{itr} + \varepsilon_{itr}$$

The dependent variable is *ROA* or *Tobin's Q* of a target firm. *Success* is a dummy variable equal to 1 if the observation is from a target firm that subsequently recorded a successful outcome for the proposal, and 0 otherwise. *Post* is a dummy variable equal to 1 if the observation is after year 0, which corresponds to the year of filing of a proposal, and 0 otherwise. We also control for firm size, age, leverage and include firm and year fixed effects.

Table 7(a): Long-term effect of ESG proposals

This table displays the difference-in-differences of the operating performance regression results of the target firms based on the following specification:

$$Y_{itr} = \beta_0 + \beta_1 Success_{itr} + \beta_2 Post_{it} + \beta_3 Post_{it}*Success_{itr} + \beta_4 Size_{itr} + \beta_5 Age_{itr} + \beta_6 Leverage_{itr} + \varepsilon_{itr}$$

The dependent variable is the return on assets (*ROA*) or the *Tobin's Q*. The independent variables include a dummy variable (*POST*) if the observation is for years after the proposal is filed (referred as year 0), a dummy variable (*Success*) if the proposal of the target firm is reported as successful, an interaction term between these two dummies (*Post x Success*) and a set of controls such as firm size, age and leverage. Firm and year fixed effects are also included. All variables are winsorized at 1st and 99th percentile. T-statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels. Columns (1) and (2) report the regression results where the variables are measured 1 year after the filing of the proposal compared the year before the filing. Columns (3) and (4) are similar except that the variables are measured 2 years after filing compared to the year before the filing

	1 year after		2 years after	
Variables	**ROA**	**Tobin's q**	**ROA**	**Tobin's q**
Post	(0.01)***	(0.10)	(0.01)***	(0.20)*
	(-3.94)	(-1.09)	(-3.91)	(-1.84)
Success	(0.01)*	(0.28)**	(0.01)	(0.27)**
	(-1.66)	(-2.40)	(-1.58)	(-2.10)
Post * Success	0.01*	0.28*	0.01**	0.33**
	(1.66)	(1.95)	(1.98)	(2.17)
Size	(0.01)**	(0.48)***	(0.01)***	(0.40)***
	(-2.00)	(-5.13)	(-3.07)	(-4.96)
Age	0.00	(0.07)	0.01	0.03
	(0.20)	(-0.29)	(1.39)	(0.11)
Leverage	(0.13)***	(3.10)***	(0.11)***	(2.45)***
	(-5.70)	(-4.51)	(-7.07)	(-4.41)
Firm fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
R-squared	0.41	0.29	0.44	0.28
N	1,276	1,282	1,208	1,213

Table 7 (a) reports the regression results. The first important result is that the interaction term *Post*Success* is positive and significant for both measures of long-term performance, ROA and Tobin's Q for both years following the filing of a proposal. This confirms that target firms perform better following a successful proposal. The effect after two years is slightly stronger than after 1 year for the Tobin's Q, which increases by 0.28 after one year and 0.33

after two years. The return on assets also improves by 0.01 after one year and two years. This implies that after two years, the ROA and the Tobin's Q of target firms with successful proposals increase, on average, by 6% and 12%, respectively, relative to the sample mean. Finally, operating performance decreases significantly with *Size* and *Leverage*, suggesting that larger and more levered firms are, on average, less performing than other firms.

We believe that the positive effect of the interaction term *Post*Success* on performance may originate from different sources. First, target firms of ESG proposals tend to attract more socially-conscious consumers and can rely on higher customer loyalty (Servaes and Tamayo 2013). Second, these firms are also known to foster employee satisfaction, which is value enhancing (Edmans 2011). Finally, these firms attract more socially-conscious investors (Bialkowski & Starks 2016). In conclusion, these results show that ESG proposal activism is not only enhances value in the short-term but also contributes to the long-term performance and increase in the value of target firms.

4.3.2. Long-term market reactions

A second approach to the examining the long-term impact of ESG activism is to look at how the market reacts to these events. First, we run the following cross-sectional regression:

$$CAR_{itr} = \beta_0 + \beta_1 * Success_{itr} + \beta_2 * Size_{it} + \beta_3 * Age_{it} + \beta_4 * InstOwn_{it} + \beta_5 * SalesGr_{it} + \beta_6 * Cash_{it} + \beta_7 * Leverage_{it} + \varepsilon_{itr}$$

where the dependent variable is the cumulative abnormal return (*CAR*) of a target firm. The independent variables *Success, Size, Age* and Leverage are measured as before. *InstOwn*

measures the percentage of institutional ownership in the target firm while *SalesGr* and *Cash* measure the sales growth and the level of cash holdings of a target firm. Firm and year fixed effects are also included in the regression. The results are reported in Table 7(b).

Table 7(b): Cross-sectional variation of long-term monthly abnormal returns

This table displays the long-term monthly abnormal return (CARs) regression results of the target firms based on the following specification:

$$CAR_{itr} = \beta_0 + \beta_1 Success_{itr} + \beta_2 Size_{it} + \beta_3 Age_{it} + \beta_4 InstOwn_{it} + \beta_5 SalesGr_{it} + \beta_6 Cash_{it} + \beta_7 Leverage_{it} + \varepsilon_{itr}$$

The dependent variable is monthly CARs. The independent variables are a dummy variable if the proposal is successful (*Success*) and a set of controls, including size, age, institutional ownership, sales growth, cash and leverage. Firm and year and industry (using ff48 industry classification) fixed effects are also included. All variables are winsorized at the 1st and 99th percentile levels. T-statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels.

	Full sample	
	1 year	**2 years**
Success	0.05	0.04*
	(1.47)	(1.81)
Size	0.02	0.01
	(1.51)	(1.26)
Age	-0.003	-0.006
	(-0.11)	(-0.28)
Institutional ownership	0.05	0.114*
	(0.55)	(1.88)
Sale growth	-0.28**	-0.20**
	(-2.42)	(-2.46)
cash	0.51**	0.36**
	(2.04)	(2.37)
leverage	0.14	0.08
	(1.11)	(1.07)
Year fixed effect	Yes	Yes
Firm fixed effect	Yes	Yes
N	600	600

The results show that the *Success* indicator has a positive and significant (10% level) effect on the long-term CAR. Over a two-year period after the proposal, successful target firms earn,

on average, 4% higher CAR than unsuccessful firms. The presence of institutional shareholders also improves the CAR after 2 years. Higher cash holdings are also associated with a higher CAR 1 and 2 years after the proposal while the effect is negative for sales growth.

Second, we compute the long-term calendar-time abnormal return (*CTAR*) for each target firm. The CTAR is computed for the full sample and the two sub-samples of target firms with proposals with a successful outcome and those with an unsuccessful outcome. CTAR is computed as follows:

$$CTAR_{jt} = R_{jt}-R_{ft} - (b_j*(R_{Mt}-R_{ft}) + S_j*SMB_t + h_j*HML_t$$

where R_{jt} is the return of sample portfolio j in month t, R_{ft} is the risk-free rate in month t, R_{Mt}-R_{ft} represents the return on the market portfolio in excess of the risk-free rate (Market factor), SMB_t is one of the Fama-French benchmark factors, representing the average return on small portfolios minus that of the large portfolios (Size factor), HML_t is another Fama-French benchmark factors, representing the average return on value portfolios minus that of the growth portfolios (Value factor). b_j, S_j, and h_j are the loadings on the three factors.

We then construct a portfolio of value-weighted CTARjt. Table 7(c) reports the estimated CTAR, measured by the alpha, and the coefficients of the Fama-French three factor model.

Table 7(c): Long-term calendar-time abnormal return analysis

This table displays the calendar-time abnormal return (CTAR) regression results for the full sample as well as the sub-samples of successful and unsuccessful proposals based on the following specification:

$$CTAR_{jt} = R_{jt}\text{-}R_{ft} - (b_j*(R_{Mt}\text{-}R_{ft}) + S_j*SMB_t + h_j*HML_t$$

A Fama-French three-factor model is used. Alpha and the coefficients for the three factors are reported. T-statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels.

	Full sample		**Successful sample**		**Unsuccessful sample**	
	For 1 year	**For 2 years**	**For 1 year**	**For 2 years**	**For 1 year**	**For 2 years**
$\boldsymbol{\alpha}$	0.19%	0.24%**	0.27%	0.41%**	0.04%	0.09%
	(1.42)	(2.16)	(1.30)	(2.33)	(0.29)	(0.80)
$\boldsymbol{\beta MKT}$	0.95***	0.95***	0.92***	0.91***	0.98***	0.97***
	(31.63)	(37.83)	(19.94)	(23.24)	(30.84)	(37.24)
$\boldsymbol{\beta HML}$	0.44***	0.40***	0.48***	0.46***	0.46***	0.41***
	(10.11)	(11.05)	(7.26)	(8.16)	(10.16)	(11.00)
$\boldsymbol{\beta SMB}$	0.009	-0.016	-0.027	-0.06	0.023	-0.0013
	(0.21)	(-0.48)	(-0.43)	(-1.17)	(0.53)	(-0.04)
N	725	725	436	436	289	289

For all three samples, the 1-year CTAR is not significantly different than zero. For the 2-year CTAR, both the full sample and the successful sample earn a positive and significant abnormal return, while the abnormal return is not significant for the unsuccessful sample. The successful sample reports a CTAR of 0.41% while the full sample reports a CTAR of 0.24%, and both are significant at the 5% level. This shows that firms with successful proposals are better perceived and evaluated by the market over a longer time period (2 years). The annualized CTAR for the successful sample is approximately 5.03% and 2.92% for the full sample. This result is consistent with those reported by Dimson et al. (2015), who examine the returns from active engagement. According to their analysis, the annual market-adjusted return for their successful active engagement sample and their full sample is 5.1% and 2.4%, respectively. Our results show that a public shareholder proposal on CSR has similar effects as private engagement in terms of cumulative abnormal returns. On the one hand, the publicly available shareholder proposal information is easier to be valued and priced by the market than

the private engagement (i.e., "information availability"), resulting in a potentially higher return. On the other hand, as a public shareholder proposal is used as the last resort, potentially after the failure of several unsuccessful private engagements, the market may cast a lower expectation for success (i.e., "enforcement difficulty"), thus a potentially lower return. These two effects offset each other and can explain why public shareholder proposals and private engagements show similar returns. In both cases, the unsuccessful events generate no significant returns.

4.4. Social performance and role of SRI funds

The last issue addressed by this paper relates to an alleged behavior by SRI investors commonly called "window dressing". Some concerns have been raised on the real outcome of environmental and social proposals, and one can wonder whether they are only used for "window dressing" by SRI investors with the sole objective of drawing media attention. If SRI investors are only submitting CSR proposals to attract investors without being highly involved in the process of improving or solving the issue, we would observe little improvement in the social aspects related to these proposals. To explore this issue in greater detail, we use MSCI ESG KLD Statistics scores to measure the social improvement resulting from a proposal.

We adopt the following methodology. First, we identify the issue raised by a proposal. This identification is based on the description in SRI funds' proposal list as well as the detailed proposal in the proxy statement filed to the SEC by the target firms. Second, we match the proposal's issue to a specific item in the KLD measures. A success dummy is generated if the score for a specific item improves, i.e., if the proposal is associated with a strength score, we

find it was rated as “1” instead of “0”; if the proposal is associated with a concern score, we find it was rated as “0” instead of “1”.

Based on our analysis, we find that, on average, concern scores decrease more than the increase in strength, indicating that SRI investors target more on mitigating the problems with concerns rather than further improving strengths. Addressing concern issues (i.e., closing down polluting facilities or reducing greenhouse gas emissions) may create more value for the target firms and society since they may more easily achieve direct and immediate success. Table 8 reports the success rate in terms of social score changes over a 1- and 2-year period. On average, we observe an improvement in social scores over one year for 11% of the proposals filed. Over two years, the success rate doubled to 23%. Among the issues raised by the proposals, diversity seems to achieve the highest success rate (38%). This can be explained by the fact that the solutions to these issues are likely to be more direct and less costly. However, issues involving ecosystems, public health, human rights and business ethics are less likely to be quickly solved, as they are more costly to implement. Proposals addressing these issues thus exhibit lower success rates. If we classify proposals to those withdrawn and those reaching the voting stage, on average, withdrawn proposals improve more in social scores than those proposal reaching the voting stage. Different % vote in favor among proposals reaching the voting stage does not affect the changes in social scores significantly.

Table 8: Social rating changes of ESG proposals

This table reports the ESG proposal success rate in terms of social rating changes. MSCI ESG KLD Statistics are used. Each proposal is matched to a specific KLD item by the content of the issue raised. Success is a dummy indicator for the increase in strength score or decrease in concern score after the proposal.

Areas	No. of proposal	Success rate over 1 year	No. of proposal	Success rate over 2 years
1. Governance				
1.1 Corporate governance	99	12%	93	28%
2. Environment				
2.1 Climate change	56	18%	45	36%
2.2 Ecosystem services	15	7%	12	33%
2.3 Environmental management	98	15%	88	27%
3. Social				
3.1 Public health	35	0%	35	0%
3.2 Human rights	26	8%	24	25%
3.3 Labor standards	107	12%	101	22%
3.4 Business ethics	86	3%	74	12%
3.5 Sustainability management and reporting	102	8%	80	16%
3.6 Plant and animal rights	3	0%	2	0%
3.7 Diversity	26	38%	23	48%
Total Environment and Social Proposals	554	11%	484	22%
Total/ Average	**653**	**11%**	**577**	**23%**

As we have seen, SRI funds play a major role in promoting corporations' CSR. Shareholder activism is one of the channels for them to raise issues and ask for changes in the target firms. Table 9 reports the regression of the future changes in social scores measured by KLD on the dummy variable that indicates whether the firm has SRI or SRI activists among its shareholders. This table reports the regression results for all firms with available KLD scores and not only for ESG proposal target firms.

We run the regression:

$$Changes\ in\ KLD_{it} = \beta_0 + \beta_1 * SRI\ (or\ SRI\ activist) + \beta_2 * X_{it} + \varepsilon_{it}$$

The dependent variable is either the future changes in KLD scores (Columns (1) and (4)), the future changes in KLD strength scores (Columns (2) and (5)) or the future changes in KLD concern scores (Columns (3) and (6)). Columns (1) to (3) report the regression results for the three scores with the dummy variable *SRI*, while Columns (4) to (6) report the regression results for these three scores with the dummy variable *SRI activist.*

First, let us look at the impact of *SRI activist*. According to Columns (4) and (6), the presence of an SRI activist in the firm's ownership structure significantly (at the 1% level) improves a target firms' KLD score by 0.04. If we break down the total KLD score by KLD strength score and KLD concern score, we find that the effect mainly lies in the concern score. The presence of an SRI activist reduces the KLD concern score by 0.04 relative to a firm with no SRI activist ownership. Second, we look at the impact of SRI investors in the firm's ownership structure. Based on the results reported in Columns (1) and (3), the presence of SRI investors significantly (at the 1% level) improves a firm's KLD score by 0.02, and this is achieved by reducing its KLD concern score by 0.04 compared to non-SRI ownership firms. One should note that two dummy variables *SRI* and *SRI activist* have no significant impact on the change in the KLD strength score.[10]

[10] In unreported regressions, we use the future KLD level (as opposed to changes) as the dependent variable and control for firm fixed effects. The results remain significant, and KLD strength score is also significant.

The regression results show the positive influence of SRI investors and SRI activists on the target firms in which they have equity ownership. On the one hand, SRI investors have altruistic incentives to help at improving the social aspects of firms in which they have equity positions. On the other hand, SRI investors also benefit from such activities. Bialkowski & Starks (2016) show that SRI investors have less volatile fund flows and benefit from more fund flows than conventional funds. In unreported tests, we also find that SRI activists have less volatile flows than SRI non-activists, although the amount of flows to the two groups are similar.

A few other independent variables are associated with the KLD score change. *Size* and *SG&A* are positively associated with the change in the KLD score. A larger firm with more spending in SG&A is associated with higher changes in the KLD score, particularly the increase in the KLD strength score. Larger firms tend to value their reputation, and SG&A is an indicator of higher customer awareness. *Market-to-book* is negatively associated with changes in the KLD score, indicating that a growth firm may care less about CSR activities than a value firm, resulting in a lower change in the KLD score. The beginning level of the KLD score is also negatively associated with the future changes, indicating that it is more difficult to increase the score further if it is already quite high.

Table 9: Social change regression of SRI holdings

This table displays the future change in KLD regression results based the following specification:

$$Changes\ in\ KLD_{it} = a + \beta_1 * SRI(or\ SRI\ activist) + \beta_2 * X_{it} + \varepsilon_{it}$$

The dependent variable is the future changes in i) KLD scores, ii) KLD strength scores, and iii) KLD concerns scores. The independent variables include a dummy variable (*SRI*) if SRI hold equity of the target firm the year before a proposal is filed (Columns (1) – (3)), a dummy variable (*SRI activists*) if SRI activists hold equity of the target firm the year before a proposal is filed (Columns (4) – (6)) and a number of controls such as the proportion of equity held by institutional investors, firm, size, market-to-book ratio, standard deviation of the firm's market returns, leverage, ROA, dividend payout, R&D, SG&A, and beginning level of KLD scores. All variables are lagged one year. Year fixed effects are also used. We control for the industry with the ff48 industry classification. All variables are winsorized at 1st and 99th percentile. T-statistics are in parentheses. ***, ** and * represent significance of the coefficient at the 1%, 5% and 10% levels.

	(1)	(2)	(3)	(4)	(5)	(6)
SRI	0.02***	(0.00)	-0.04***			
	(3.33)	(-0.56)	(-7.12)			
SRI activist				0.04***	-0.00	-0.04***
				(3.53)	(0.86)	(0.00)
Institutional	-0.02	0.01	0.022**	-0.05	-0.04**	0.00
	(-1.62)	(1.20)	(2.14)	(0.05)	(0.03)	(0.98)
Size	0.05***	0.06***	0.02***	0.05***	0.07***	0.02***
	(15.66)	(26.17)	(11.15)	(-0.00)	(0.00)	(0.00)
Market to book	-0.01**	-0.02***	-0.01**	-0.03***	-0.03***	-0.01
	(-2.52)	(-4.17)	(-2.5)	(-0.00)	(0.00)	(0.20)
Std	-0.96**	0.18	1.25***	-1.71***	-0.25	1.56***
	(-2.54)	(0.70)	(5.16)	(-2.85)	(0.56)	(0.00)
Leverage	0.00	0.00	0.00	0.00	0.00	0.00
	(1.14)	(1.44)	(0.84)	(0.96)	(0.79)	(0.42)
ROA	-0.02	-0.00	0.02	-0.02	-0.00	0.01
	(-0.73)	(-0.13)	(0.91)	(0.69)	(0.91)	(0.75)
Dividend pay	0.00	0.00	0.00	0.01	0.01	-0.00
	(0.02)	(0.14)	(0.17)	(0.35)	(0.45)	(0.61)
R&D	0.06	0.11***	0.06	0.20*	0.14	-0.06
	(0.98)	(2.54)	(1.36)	(0.08)	(0.12)	(0.36)
SG&A	0.08***	0.06***	-0.01	0.13***	0.11***	-0.01
	(3.99)	(4.26)	(-0.82)	(0.00)	0.00	(0.73)
KLD	-0.15***			-0.14***		
	(-25.38)			(0.00)		
KLD strength		-0.12***			-0.13***	
		(-20.18)			(0.00)	
KLD concern			-0.17***			-0.17***
			(-29.57)			(0.00)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.19	0.08	0.24	0.13	0.07	0.18
N	16,469	16,469	16,469	8,076	8,076	8,076

5. Discussion and conclusion

This paper studies ESG-related shareholder proposals, with a focus on a SRI-sponsored proposal sample. SRIs choose to target larger, more mature firms and firms with reputation concerns but tend to spend less on firms with high capital expenditure or R&D. ESG proposals are positively evaluated by the market as a sign that the firms will improve their corporate social responsibility, which in turn leads to value creation. We find positive significant abnormal returns on the filing date of ESG proposals. The results are robust to using different models or portfolio weightings. The CARs generated around the filing date for proposals filed by SRIs are much stronger than the average CAR generated by overall CSR proposals filed by all parties. The firms for which ESG proposals are successful earn higher filing-meeting period buy-and-hold abnormal returns than firms for which proposals are unsuccessful. They also exhibit higher operating performance in the long term. These ESG proposals also increase the social ratings of target firms, thus confirming that efforts have indeed been made by the SRI funds in negotiations with the management and that actions in response to the proposals have been conducted.

To better understand the channels through which CSR activities create value, we test whether the three channels revealed by Albuquerque et al. (2018), Edmans (2011), and Bialkowski & Starks (2016) can apply to our results. The empirical analysis shows that a proposal is more likely to be successful if the target firm is operating in a high customer awareness firm, as measured by scaled advertising expenses, and if the firm has higher employee productivity, as measured by sales per employee. SRIs are incentivized to perform CSR activism, as they receive less volatile fund flows than conventional funds, particularly

SRIs that are the members of the USSIF. Inferring from the market reaction to ESG proposals, it seems that CSR does create value for firms by improving their financial performances.

One relevant issue that could be raised is the following: given that CSR proposals are value -enhancing, how can we explain that some proposals are not successfully accepted by the firm or the shareholders? The answer may lie in the simple fact that it takes time. Over the years, investors and firm managers have gradually embraced the idea that CSR activities improve firm value in the long run rather than just being a costly activity reducing the firm's value in the short run. An increasing number of academic research studies show that there is a positive link between CSR and firm value. Moreover, there is anecdotal evidence that large asset managers, such as Blackrock Inc., engage in CSR activism themselves and launch their own SRIs. For example, during the 2017 proxy season, Blackrock announced their engagement priorities, stating that they expect the board to try to mitigate the climate change risk—a material risk. Vanguard also updated the guidelines to evaluate the environmental proposals. However, we also see some challenges on the legislation side. There is increasing support for the amendment of the shareholder proposal rule. The proposed changes by the House Republicans (in "the CHOICE Act") include such measures as i) increasing the holding period requirement for the shareholders, ii) requiring that the shareholder holds at least 1% of the target firm, and iii) increasing the threshold of approval rates for the resubmitted proposals. SRIs discussed in this paper seldom hold more than 1% of the shares of the target firms. As a result, the proposed changes may discourage the shareholder proposal filed by these parties or, at least, make it more difficult. As a result, SRIs may work more closely with other institutional shareholders, such as pension funds (some of them already have), to keep engaging in shareholder activism to create enduring value for the firms.

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Appendix I: Variable Definitions

Variable name	Definition
Firm size	Market value of equity (in billion $)
Market-to-book	Market value of equity / Book value of equity
Tobin's q	(Market value of equity + Book value of debt) / (Book value of equity + Book value of debt)
Firm age	Firm age relative to the year when the firm initially appeared in Compustat
Sales growth	Annual sales growth rate
Return on assets	Earnings before interest, taxes, depreciation and amortization (EBITDA) / Average total assets
Asset turnover	Sales/Average total assets
Sales over employees	Sales/Number of employees (in billion $)
Profit margin	Earnings before interest and taxes (EBIT) / Sales
Cash flow	(Net income before extraordinary items + Depreciation and amortization) / Average total assets
Stock return	Buy-and-hold stock return of the fiscal year
Stock return volatility	Standard deviation of monthly stock returns during the fiscal year
Leverage	Book value of debt / (Book value of debt + Book value of equity)
Cash holding	Cash / Total assets
Dividend yield	Total dividends / (Market value of common equity + Book value of preferred equity)
Dividend payout	Total dividends / Net income before extraordinary items
R&D expenditure	R&D expenditures / Average total assets
Capital expenditure	Capital expenditures / Average total assets
Advertising expenditure	Advertising expenditures / Average total assets
Industry Herfindahl index	Herfindahl-Hirschman index computed using all firms within the same industry (four-digit SIC)
Industry advertising intensity	Industry (four-digit SIC) median of advertising intensity, (Advertising expenditures/Sales), multiplied by 100
Tangibility	Tangibility ratio (Net PP&E / Total assets)
Market share (segment)	Market share of sales calculated using segment data, calculated as firm's sales divided by industry (three-digit SIC) sales
Shareholding of pension activists	Number of shares held by institutions defined as activist by Cremers and Nair (2005) and Larcker, Richardson, and Tuna (2007) as a proportion of the number of shares outstanding
Number of pension activists	Number of activist pension institutions
Shareholding of SRI funds	Number of shares held by a fund defined by Risk Metrics ISS shareholder proposal database as SRI fund or social fund as a proportion of the number of shares outstanding
Amihud illiquidity	Amihud (2002) illiquidity measure
Entrenchment index	Bebchuk, Cohen, and Ferrell (2009) entrenchment index

Appendix II: Media News Extract of a Shareholder Proposal Example

NEWS RELEASE
March 30, 2001

Coke and Pepsi Waste Targeted by Environmental Groups: Shareholders Campaign Launched to Increase Recycling

Shareholder proposals were submitted to Coke and PepsiCo in November 2000. You Sow Foundation (San Francisco), Walden Asset Management (Boston), Domini Social Investment (New York), Trillium Asset Management (Boston), and Atlanta shareholder Lewis Regenstein filed the proposal with Coke. Walden and Domini filed the proposal with PepsiCo.

The proposals call upon management to establish recycling targets and prepare a plan to achieve them by January 1, 2005. There are two goals: (1) achieving an 80 percent national recycling rate for bottles and cans; and (2) making plastic bottles with an average of 25 percent recycled plastic.

Date of Proposal Filing: March 23, 2001
Date of AGM: May 2, 2001

CHAPTER TWO

EFFECTIVE ACTIVISM – SPONSOR IDENTITY IN ENVIRONMENTAL AND SOCIAL PROPOSAL FILING

Abstract

This chapter studies effective shareholder activism by analyzing sponsor identity of environmental and social (ES) proposals over the period 1997 to 2015. When the proposal is sponsored by socially responsible funds (SRIs) or pension funds, the probability of success and the percentage of vote in favor at the annual general meeting (AGM) are higher than sponsored by other parties, after controlling for the proposal issue type. SRIs and pension funds also obtain significant positive abnormal return on the date of proposal filing. The successful proposals sponsored by these parties generate higher long-term abnormal return and operating performance than other successful proposals. The findings suggest that more effective activism concerning ES issues can be achieved by strategically choosing the sponsor with more expertise and past experience, such as SRIs or pension funds. The findings also support the view that effective ES activism brings value to the target and the optimistic view of the activism is reflected in the share price.

"BlackRock Inc., the world's biggest money manager, this week said it would press companies to be more transparent about the potential effects of climate change on their business."

-- Wall Street Journal, March 19, 2017

1. Introduction

A group of activist investors have been fighting the activism campaigns by filing shareholder proposal since the 1990s. According to the Institutional Shareholders Services ("ISS") shareholder proposal database, more than twenty thousand proposals are filed against corporations over the period from 1997 to 2015. It has opened a door to the shareholders who have the need to raise their voice to the corporations. The issues being raised ranges from general corporate governance issues such as board structure and audit control, to social, environmental and sustainable issues such as climate change, diversity and employee satisfaction. More environmental and social ("ES") issues are being discussed in the shareholder proposals in recent years. In 2014, ES proposals accounted for 56% of all the shareholder proposals filed that year, representing a majority for the first time, according to the accounting firm Ernst & Young LLP. The activist investors who join the campaign grows as well. In the past, special interest groups, unions and small socially-conscious funds are the main fighters in the ES proposal filing. Over time, more and more very large funds and money managers, such as BlackRock, index fund State Street Global Advisors are joining the campaign more recently, according to Wall Street Journals.

SRIs account for around $9 trillion in assets under management in the U.S. and have grown 33% a year over 2014 to 2016, according to The Forum for Sustainable and Responsible Investment ("USSIF"). The joining of tycoon financial institutions in the activist campaigns

regarding ES issues also confirms that ES activism is no longer a party within small minority players. Firstly, on the contrary to the previous argument that ES proposal filing is just smokescreen that achieves no significant actions by the firms, more evidences show that changes are indeed happening. Nearly 80% of companies in the S&P 500 index now disclose at least some information about their political-spending policies, according to the Center for Political Accountability; 53% publish sustainability reports, according to the Governance and Accountability Institute; and about 22% have human-rights policies according to a private research group named Conference Board. Disclosure of policies reduce uncertainty and increase confidence among the shareholders, which in turn reduces risks.[1] Changes implemented are not restricted to changes in disclosures, we can also see, for example, adding female board members after a proposal regarding diversity is being filed, and replacing raw materials when the product is not up to environmental standards after a related proposal is being filed. On the other hand, more people are prone to the view that non-financial aspects such as environmental and social issues indeed have a real financial impact on the firms. Although academic papers have been debating on whether the implementation of non-financial ES changes is value-enhancing for the firm financially[2], we do see that many large institutions are joining in the ES activist campaigns in the industry. A recent report from Bank of America Merrill Lynch in December 2016 also showed that firms that scored in the top one-third on environmental, social and governance characteristics relative to their peers outperformed stocks in the bottom third by eighteen percentage points.

[1] For example, Botosan (1997) find that greater disclosure is associated with a lower cost of equity capital for firms that attract a low analyst following. Also refer to Diamond and Verrecchia (1991).

[2] For example, Margolis et al. (2007) find little correlation between the two. Philipp Kruger (2015) finds that stock market responds negatively to both positive and negative CSR events. Flammer (2015) finds that the proposals that marginally pass the majority in favor attract positive market reaction.

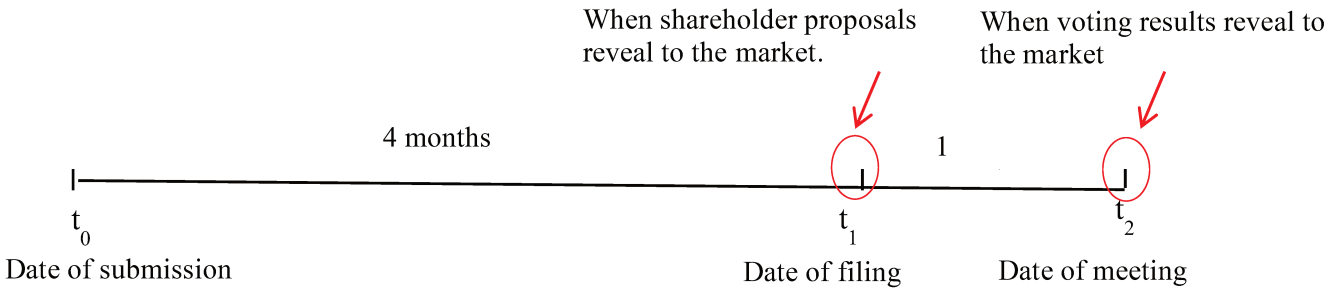
The identity of the activist investors who file the shareholder proposals (defined as "sponsors" in the remaining chapter) regarding ES issues is quite diverse. The most frequent fillers include socially responsible funds ("SRIs"), pension funds, religious group and foundations, each represents more than 15% of the proposal sample. Individuals also file around 10% of the proposals regarding ES issues. To strategically exercise effective activism, choosing the right sponsor with experience and expertise seems rather important. Also, activists work together as a group could potential generate more powerful impact as they together hold larger percentage of shares of the firm, thus higher voting power and negotiation power.

In this chapter, we would like to address mainly two questions. First, what role does sponsor identity play in ES shareholder proposal filing. Especially how does it affect success rate of the proposals, and the vote in favor in the AGM if the proposal goes to voting stage? Second, how does the stock market react to the ES shareholder proposals filed by different parties. Stock market reaction (both short term and long term) to these ES shareholder proposal filing events and long term operating performance changes to the proposal target firms are examined, considering the role of sponsors. Our sample consists of ES proposals filed by different sponsors over the period 1997 to 2015, provided by ISS. The sample has altogether 5,609 ES proposals, targeting 860 different firms.

As Proposal Rule 14a-8 required, shareholders are eligible to submit issues for inclusion in the proxy materials and to be presented and voted in the AGM or a special meeting when they own at least $2,000 or 1% of outstanding shares. The timeline for proposal submission is summarized in Figure 1. Activist shareholders submit their proposal to the management of the target firm at time t_0, date of submission; during the four months after the submission, the two parties can engage in discussions of the proposal, trying to meet the concern of both sides at a

middle point. If certain agreement is reached, shareholder may withdraw their proposals; Unsettled proposals are filed to the Securities and Exchange Commission ("SEC") by the target firms at time t_1, date of filing, as long as it is not excluded by the SEC due to technical problems; After approximately another one month, these proposals are going to be presented and voted at the AGM or a special proxy meeting, at time t_2. Before t_1, the information about the shareholder proposal is still private; t_1 is the time this information is revealed to the market and becomes public. At t_2, the voting results of the proposals are released. An example of one shareholder proposal media news extract is attached in Appendix II.

Figure 1: Timeline for proposal filing



Then we analyze the role of sponsor identity in terms of the successfulness of the ES proposals. we start with providing descriptive statistics for the success rate and percentage of vote in favor when the proposal goes to the voting stage. Proposals sponsored by SRIs and pension funds achieve the highest success rate and percentage of vote in favor. Because some issues may be harder to negotiate and implement than others, the successfulness of the proposal is also dependent on the proposal issue type. Issue type is taken into account in the analysis of how sponsor identity affects proposal. We run regressions of (i) probability of success, and (ii) percentage of vote in favor on sponsor identity, controlling for the proposal issue type. The results show that an SRI or pension fund sponsor significantly improves the success rate, and

a pension fund sponsor significantly improves the percentage vote in favor. We perform the analysis again using matching technics to address selection issues, and the results remains the same.

Next we turn to evaluate how the stock market reacts to these ES proposals. First, we use the date of proposal filing as the event date. The entire sample using an equal-weighted portfolio of target firms earns a four-factor alpha of 0.04% on the date of proposal filing. The results are robust when using both the market model and value-weighted portfolios. Second, we separate the sample by sponsor identity. It turns out that the sub-samples sponsored by SRIs or pension funds earn significant alphas. Third, we examine the market reaction by proposal outcome. As voting outcome is only available on the date of meeting, we use the date of meeting as the event date. We also find significant abnormal return in the event window, with significantly different results for sub-samples with different proposal outcome. The difference is most significant when restricting the sample to only SRI-sponsored proposals.

Lastly, we test for long-term effects of both stock market reaction and operating performance changes to the target firms after the ES proposal filing. Stock market reaction measured by long-term calendar time abnormal returns ("CTAR") shows significantly alpha for the whole sample and differences in the alphas according to the successfulness of the proposals. Moreover, the sub-sample of only SRI sponsored proposals results in a higher alpha for the successful proposal portfolio than the average successful proposal portfolio. There is also significant difference in alphas between successful and unsuccessful proposal portfolios. In analyzing the long-term operating performance, a difference-in-differences setting is used to show that being sponsored by SRI would improve the operating performance of the target firm after the proposal more than other proposals not sponsored by SRI.

The contribution of this chapter is threefold. Firstly, it adds to the limited empirical work on ES-related shareholder activism. It provides additional evidence to show that the stock market reacts positively to the activist event. Secondly, it provides new results to discuss the role of sponsor identity in terms of success rate, percentage of vote in favor and stock market reactions. It shows that more effective ES activism is achieved by strategically choosing sponsors with more expertise and prior experience. Thirdly, it provides long-term results of ES shareholder activism on both operating and market performances and further reiterates the positive link between CSR and firm value.

The remainder of the chapter is structured as follows. Section 2 reviews extant literature and proposes testable hypotheses; Section 3 presents data; Section 4 summarizes the proposal issues and analyzes the role of sponsor identity; Section 5 tests for short-term market reaction; Section 6 examines long-term performances of target firms; Section 7 concludes.

2. Literature review and testable hypotheses

2.1. Literature review

Large institutional investors have tried to actively monitor and influence corporation's corporate governance issues through activism. Smith (1996) looks at CalPERs, one large pension fund, and its 51 activism activities to different target firms. The findings show that shareholder wealth increases for the firms that adopt the activism changes, while operating performance differential for the firms that adopt versus those that resist the change is not significant. Gillan and Starks (2000) summarize corporate governance shareholder proposals during the years 1987 to 1994 using over two thousand shareholder proposals. The focus of this paper is to analyze the effect of activism by different types of activist and activism issue

types. The findings show that the proposals sponsored by institutions or coordinated groups gain substantially more support in voting than those sponsored by individuals. Short-term stock market reaction also varies according to sponsor identity and issue type.

Recently, a group of scholars choose to look at one specific investor group which is not highly regulated: hedge funds. These funds are neither subject to laws to maintain diversity in portfolio holding, nor facing frequent redemption risk from their investors. Brav et al. (2008) examine closely the activism activities by these hedge funds. They find strong abnormal announcement returns with no reversal in the following year. While the above papers study shareholder activism through public proxy process, other papers find shareholders sometimes use informal channels to engage in private interventions – the effect of which is not yet captured by studies using only public information. Becht et al. (2006) study the U.K. fund manager Hermes and its private engagements. Their findings show that private intervention is the predominant way that Hermes engages in activism, and it is ultimately value-enhancing for the target firms.

More recently, a few papers start to look at shareholder activism on environmental and social issues. ES issues are getting more attention recently. Many believe that these are intrinsically important questions which link to the sustainability and long-term performance of the firms. Flammer (2015) analyzes close-call shareholder proposals on ES issues. She finds that compared with those proposals that fail by a small margin, those just pass earn a positive and significant stock market return, and are also associated with better long-term operating performance. Dimson et al. (2015) also analyze engagement on ES issues, except that they use private interventions. Their findings show that firms associated with successful private engagements earn higher cumulative abnormal return and better operating performance.

Renneboog and Szilagyi (2011) study the role of shareholder proposals in corporate governance. They find that target firms tend to underperform and have poor governance structures and that governance quality affects voting outcome.

This chapter examines shareholder activism on ES issues, focusing on public engagements through proxy filing. However, as the data sample includes those proposals that have been filed and withdrawn, our results shed light on the importance of negotiation phase before proxy filing. Adding upon the limited literature of CSR activism, the focus of this chapter is on how sponsor identity and issue types impact the activism success and voting outcome. It is closely related to Gillan and Starks (2000), where they try to answer similar questions using corporate governance shareholder proposals.

2.2. Testable hypotheses

Based on extant literature, we have made the following predictions. Firstly, SRIs and pension fund sponsors initiate more effective activism. Therefore, the success rate and the voting outcome are higher if the proposal is sponsored by these parties than by other parties. Gillan and Starks (2000) show that institutional investors and coordinated groups receive higher vote in favor if the proposal goes to voting. A larger shareholder has more incentive to take on costly monitoring role. Their findings also show that a proposal is later withdrawn if submitted by institutional investors because they have greater bargaining power in negotiation with the management. Given the above, we test whether SRI or pension fund-sponsored proposals generate higher vote in favor and higher success rate.

Secondly, shareholder proposals on ES issues generate small but positive short-term stock market reaction on average, especially for the ones that sponsored by SRIs or pension funds. Gillan and Starks (2000) find that the corporate governance proposals generate small but negative short-term market reactions on average since it indicates management's unwillingness to negotiate certain issue with the activist. The effect is usually small as there could be information leakage, or an alternative mechanism that shareholder could use to influence the target. Flammer (2015) identifies that CSR proposals that just pass the majority voting threshold earns small positive short-term abnormal returns compared to the ones that just fail (which earns small negative abnormal returns). In line with the above, we test whether the short-term market reactions to the ES proposal sample is small but positive.3 We also test whether this market reaction is likely to be different for different sponsor groups, as they have different negotiation power.

Thirdly, the long-term operating performance of target firms associated with successful proposals are better than those with unsuccessful proposals, and the target firms associated with successful outcome and sponsored by SRIs or pension funds are better than those sponsored by other parties. We also test for long-term operating performance. We test whether there is a long-term positive relationship between successful ES proposals and firm value and whether the effect is different among sponsors.

[3] A few other CSR papers, both theoretical and empirical, discuss the value implication of CSR activities and find a positive relationship. For example, Albuquerque et al. (2018), Servaes and Tamayo (2013), Edmans (2011), Dimson et al. (2015).

3. Data and descriptive statistics

3.1. Data

Our shareholder proposal database is obtained from ISS. It contains about 20,000 environmental, social and governance proposals in the database covering 1997 to 2015 period. There are 5,609 ES proposals, about 25% of the data sample. For each observation, we have information on the year of proposal, the proposal target firm identifier, the firm's name and industry, the sponsor's name and the sponsor's identity initially defined by ISS, the proposal issue type and content summary, whether or not the proposal is withdrawn, the percentage of vote in favor if it goes to the AGM, and the date of the AGM. Proposal filing dates are hand-collected using Phyton from Schedule 14a on SEC EDGAR filing.

Stock market return information is collected from the Center for Research in Security Prices ("CRSP"), and firm characteristics are gathered from Compustat's fundamentals annual data from Wharton Research Data Services ("WRDS").

3.2. Descriptive statistics

Table 1(a) summarizes the ES proposals by the most frequent areas and issue. We delete all the governance related proposals in the data and keep only those related to environmental and social issues. These proposals form our initial database. Then we categorize the ES proposals into 9 areas: three under environmental issues and six under social issues. I list out the potential issues for each area. The area and issue categorization mostly follows Dimson et al. (2015).

Business ethics and labor standards are two most frequent subcategories. They each account for 21% of the total ES proposals submitted. The third most frequent subcategory is environmental management (17%) followed by public health (15%).

Table 1(a): Breakdown of proposal areas and issues

This table summarizes different ES shareholder proposals over the sample period 1997 to 2015. Shareholder proposals are categorized by two main areas: environmental area and social area. Environmental area includes issues covering for example climate change, ecosystem services and environmental management, and social area includes issues such as human rights, labor, ethics and sustainable reporting.

Areas	Issues	No.	%
1. Environment			
1.1 Climate change	Biofuels, climate change strategy, emissions management and reporting	200	4%
1.2 Ecosystem services	Access to land and water	134	2%
1.3 Environmental management	Environmental standards, pollution control, supply chain environmental standards, recycling	963	17%
2. Social			
2.1 Public health	Access to medicines, product safety	820	15%
2.2 Human rights	Community relations, privacy and free expression, weak governance zones	552	10%
2.3 Labor standards	Diversity, Health and safety, ILO core conventions, supply chain labor standards	1,154	21%
2.4 Business ethics	Bribery and corruption, political influence	1,182	21%
2.5 Sustainability management and reporting	Disclosure and reporting, governance of sustainability issues, UNGC compliance	360	6%
2.6 Plant and animal rights	Protect plant and wild animals	242	4%
Total Environment and Social Proposals		**5,607**	**100%**

Table 1(b) shows success rate by the issues. As previous mentioned, success is defined if (i) in the negotiation stage, the sponsor who files the proposal successfully convinces the target firm to commit to the changes with regard to the issue proposed and then the sponsor "successfully withdraws" the proposal, or (ii) if no agreement is reached, it gets majority vote in favor during the AGM.

Table 1(b): Number of success and percentage of success

This table summarizes the number of success and percentage of success for different ES shareholder proposals during the sample period 1997 to 2015. Success is defined if (i) the sponsor and the target firm reach agreement and the sponsor "successfully withdraws" the proposal, or (ii) when no agreement is reached, the proposal goes to voting during the AGM and receives majority vote in favor.

Areas	Issues	No. of success	% of success
1. Environment			
1.1 Climate change	Biofuels, climate change strategy, emissions management	43	22%
1.2 Ecosystem services	Access to land and water	19	14%
1.3 Environmental management	Environmental standards, pollution control, supply chain environmental standards, recycling	318	33%
2. Social			
2.1 Public health	Access to medicines, product safety	199	24%
2.2 Human rights	Community relations, privacy and free expression, weak governance zones	116	21%
2.3 Labor standards	Diversity, Health and safety, ILO core conventions, supply chain labor standards	426	37%
2.4 Business ethics	Bribery and corruption, political influence	226	19%
2.5 Sustainability management and reporting	Disclosure and reporting, governance of sustainability issues, UNGC compliance	173	48%
2.6 Plant and animal rights	Protect plant and wild animals	47	19%
Total Successful ES proposals / % of success		**1,567**	**28%**

Table l(b) also shows the number of successful proposals for each area and their representation over the total number of proposals for each area. In terms of success percentage, area sustainability management and reporting has the highest rate 48%; close to half of the proposals in this area are regarded as successful. They include disclosure and reporting, governance of sustainable issues, and UNGC compliance. Since many proposals under this area involve reporting with comparably little cost, it is easier for the sponsor and target management to reach agreement. Labor standards and environmental management have the second and third highest success rate, at 37% and 33% respectively.

Table 1(c) further breaks down the proposal outcome by the two stages. At stage one, proposals are submitted by the sponsors to the target firms for negotiation. They may be withdrawn if agreement is reached between the parties or omitted by the SEC if the target firm filed to SEC to omit it arguing that it is under "ordinary business" or failure to meet technical requirement. Under the Proposal Rule, firms can apply to the SEC to exclude the shareholder proposal if it relates to their "ordinary business operations" rather than matters of policy. The technical requirements to be met to submit a proposal include that (i) sponsors should own at least 1% or $2,000 in value of the target firms outstanding shares; (ii) if submitted before, the proposal should attract at least 3% of vote in favor for the first time and 10% for three years. Omissions are usually not very common, especially if due to technical issues. The success rate at the first stage for those proposals not going to meeting is typically greater than 50%. The highest success rate (87%) is achieved by the sub-issue sustainable management and reporting, followed by the environmental management type of proposals with a 71% success rate. Both of these issues cover claims that are softer and comparable less costly, such as transparency and reporting issues. Labor standards also exhibit a 64% success rate at stage one, it may be explained by unions who specialize in filing proposals in this area and who have the expertise to increase the success rate during negotiations.

At stage two, the remaining proposals neither withdrawn nor omitted are presented at the meeting and voted by shareholders. The last two columns represent the mean and the median of the percentage of vote in favor for the proposals by issue. Similar to stage one, softer issues receive higher percentage of vote in favor. Large institutional investors who own large share blocks in the target firms have crucial influence on the proposal outcome when it goes to the meeting. They usually prefer less threatening proposals regarding improvement of transparency or reporting policies. SRIs, unions and individual sponsors usually own quite few

shares of the target, they are more likely to win more votes if they get support from large institutional shareholders.

Table 1(c): Probability of successful withdrawn and percentage of vote in favor

This table summarizes the probability of success and percentage of vote in favor for different ES shareholder proposals over the sample period 1997 to 2015. Probability of successful withdrawn is computed using the number of successful withdraws divided by the total number of withdraws under each issue area.

Areas	Issues	Probability of successful withdraw		Percentage of vote in favor	
		Mean	Median	Mean	Median
1. Environment					
1.1 Climate change	Biofuels, climate change strategy, emissions management and reporting	47%	0%	11%	7%
1.2 Ecosystem services	Access to land and water	53%	100%	9%	7%
1.3 Environmental management	Environmental standards, pollution control, supply chain environmental standards, recycling	71%	100%	16%	10%
2. Social					
2.1 Public health	Access to medicines, product safety	44%	0%	7%	5%
2.2 Human rights	Community relations, privacy and free expression, weak governance zones	56%	100%	11%	7%
2.3 Labor standards	Diversity, Health and safety, ILO core conventions, supply chain labor standards	64%	100%	16%	10%
2.4 Business ethics	Bribery and corruption, political influence	50%	50%	20%	17%
2.5 Sustainability management and reporting	Disclosure and reporting, governance of sustainability issues, UNGC compliance	87%	100%	24%	27%
2.6 Plant and animal rights	Protect plant and wild animals	48%	0%	5%	4%
Average		**59%**		**15%**	

Tables 2(a) and 2(b) summarize the ES proposals by year and by industry. The number of proposals in the ISS database is relatively constant over the years, with a peak during 2006 to 2010, which correspond to the financial crisis period. It could be that the activists worry about the ES issues more during the crisis where more resources may be redistributed to keep the

normal business going. The percentage of success over the years is also stable except for 2014 and 2015, which is probably due to lack of complete data in the ISS database for those years.

Table 2(a): Summary of proposals by year

This table summarizes shareholder proposals by year. Columns (2) and (3) report the number and % of proposals submitted each year. Columns (4) and (5) report the number and % of success rate of shareholder proposals for each year.

Year	No. of proposals	% sample	No. of success	% success
(1)	(2)	(3)	(4)	(5)
1997	287	5.1%	81	28%
1998	288	5.1%	53	18%
1999	196	3.5%	50	26%
2000	235	4.2%	54	23%
2001	242	4.3%	64	26%
2002	273	4.9%	91	33%
2003	283	5.0%	99	35%
2004	307	5.5%	75	24%
2005	319	5.7%	96	30%
2006	334	6.0%	94	28%
2007	355	6.3%	106	30%
2008	396	7.1%	135	34%
2009	374	6.7%	140	37%
2010	336	6.0%	115	34%
2011	302	5.4%	106	35%
2012	269	4.8%	91	34%
2013	299	5.3%	90	30%
2014	227	4.0%	17	7%
2015	287	5.1%	10	3%
Total /average	**5,609**	**100.0%**	**1,567**	**28%**

Table 2(b) summarizes the ES proposals by industry according to industry SIC code. Manufacturing firms are the most frequent target for ES shareholder proposals. More issues are to be targeted in manufacturing firms. Manufacturing firms may cause more problems in climate change or other environmental issues in the process of manufacturing. Also,

manufacturing firms employ a large number of workers and thus potentially draw the attention of labor activists, for example unions and other special groups, to submit proposals. The percentage of success is around 20% to 30%. Proposals that target wholesale trade firms exhibit the highest success rate with 50% but this may due to the small sample size.

Table 2(b): Summary of proposals by industry

This table summarizes shareholder proposals by industry. The classification is obtained by industry SIC code. "Transportation" includes Transportation, Electric and Gas. "Financial" includes Finance, Insurance and Real Estate.

Industry	**No. of proposals**	**% of sample**	**No. of success**	**% of success**
	(1)	(2)	(3)	(4)
Agriculture, Forestry and Fishing	27	0.5%	4	15%
Mining	319	6%	83	26%
Construction	58	1%	20	34%
Manufacturing	2,352	42%	635	27%
Transportation	794	14%	218	27%
Wholesale Trade	40	1%	20	50%
Retail Trade	718	13%	220	31%
Finance	702	13%	216	31%
Services	320	6%	91	28%
Non-classifiable	279	5%	60	22%
Total/ Average	**5,609**	**100.0%**	**1,567**	**28%**

4. Empirical results

4.1. Sponsor identity

Tables 3(a) and 3(b) represent the results of a univariate analysis on the probability of success and the percentage of favorable votes at the AGM. Table 3(a) reports the success rate and target issue according to the sponsors' identity.

The most frequent sponsor groups include the SRIs, religious groups, pension funds, foundations and special groups. Because of the function and issues that are of interest to the sponsor, different groups may choose to target different issue areas. For instances, SRIs pay more attention to environmental issues; religious groups focus more on public health and human right issues; pension funds care more about labor standards. While almost all sponsors have interest in promoting business ethics related issues, which may have a fundamental influence on the reputation and operating performance of the target firm. In terms of success rate, SRIs and pension funds exhibit the highest rate, with 38% and 40% respectively. This can be explained by the fact that SRIs have the experience and expertise in filing the ES proposal, and proposal filing is one of the most important ways for them to pursue their social value of running the funds. Pension funds represent the interest of their pension holders which tend to focus on labor standard issues. A few pension fund activists improve the success rate through repeatedly filing proposals on similar issues, probably due to learning from earlier proposal filings.

Table 3(a): Summary of success by sponsor identity

This table summarizes the proposal success by sponsor identity. The initial classification for the sponsors are obtained by the ISS data, further modification of classification is made by the sponsor name if the initial classification allocates different sponsor group for the same sponsor by mistake. The largest sponsor groups are SRI, pension funds, religious group and foundation and special groups. The total number of proposals under each sponsor group, % of that to the full sample, the number of success proposals under each sponsor group, and finally % of success are reported in columns (1) – (4) below. The last column summarizes the most frequent issue areas for each sponsor group.

Sponsor identity	**No. of proposals**	**% sample**	**No. of success**	**% success**	**Most frequent issues**
	(1)	(2)	(3)	(4)	(5)
SRIs	1195	21%	456	38%	Environmental management, business ethics
Pension funds	959	17%	384	40%	Labor standards, business ethics
Other institutional investors	100	2%	28	28%	Business ethics
Religious group	1024	18%	325	32%	Public health, human rights, environmental management
Union	227	4%	50	22%	Business ethics
Foundation and special groups	930	17%	241	26%	Environmental management, plants and animals
Individuals	536	10%	24	4%	Business ethics
Others	65	1%	8	12%	Business ethics
Undisclosed	573	10%	51	9%	Business ethics
Total / Average	**5,609**	**100.0%**	**1,567**	**28%**	

Religious group also tends to gain a reasonably high success rate of around 32%, probably also due to the prior experience of submitting proposals on similar issues. Individual shareholders also submit ES proposals. A few individuals submit quite a large number of ES proposals but the success of individual sponsored proposals is relatively low (around 4%).

Table 3(b) further breaks down the sample by sponsor identity and by stage. Columns (1) and (2) report the number of withdrawn proposals and the probability of successful withdrawn while columns (3) and (4) report the number of proposals that reach the AGM and the

percentage of vote in favor of the proposal during the AGM. Consistent to the results reported in Table 3(a), SRIs and pension funds receive high probability of success on withdrawn proposals (stage 1). At stage two, SRIs and pension funds sponsored ES proposals also receive a higher percentage of favorable votes. Union sponsored proposal also receive a relatively high percentage of favorable votes (17%) during the AGM, even if the success rate at the first stage for union sponsors is just around average rate (52%). It shows that unions are not as skillful as some other sponsors, such as SRIs or pension funds, to negotiate a success outcome for the proposal at stage one, but their proposal often receive sympathy from the voters at the AGM to receive a relatively high support.

The incentives to file an ES proposal may be different for different sponsors. As summarized in previous Table 3(a), SRIs may pay more attention to issues related to climate changes, sustainability and environmental reporting, while unions care more about labor standards. Among the issues, some types of issues tend to be relatively easy to solve, or at least easier to initiate the changes. For example, proposals regarding issues in the areas of environmental management and political spending only requires more reporting most of the time. These request may be more welcomed by the target firm and thus agreements are more likely to reach between the sponsor and the target management at stage one.

Table 3(b): Summary of success by withdraws and sponsor identity

This table summarizes the proposal success by sponsor identity. Following the results of the previous table, it shows proposal success divided by withdraws and no withdraws, under each sponsor group. For withdrawn proposals, columns (1) and (2) show the number of withdraws and percentage of successful withdraws respectively; for proposals without withdraw, they go to the AGM and columns (3) and (4) show respectively the number of proposals going to the AGM, and the percentage of vote in favor they obtain during the AGM.

Sponsor identity	**No. of withdraws**	**Probability of successful withdrawn**	**No. of going to the AGM**	**Percentage of vote in favor**
	(1)	(2)	(3)	(4)
SRI	597	75%	598	17%
Pension funds	465	79%	494	21%
Other institutional investors	49	53%	51	14%
Religious group	408	78%	616	13%
Union	96	52%	131	17%
Foundation and special groups	415	58%	515	10%
Individuals	308	8%	228	8%
Others	24	33%	41	16%
Undisclosed	215	20%	358	16%
Total / Average	**2,577**	**59%**	**3,032**	**15%**

On the other hand, proposals regarding human rights or climate change may require more changes to be taken that may affect more the core operation of the business. For example, a human rights request may involve a shut-down of factory in a developing country while a climate change request may involve finding a substitute for one of the raw materials. These changes are relatively difficult to implement and take time. Moreover, the costs associated with implementing the changes are also relatively higher. Therefore, the success rate at stage one negotiation is relatively lower.

Tables 4(a) and 4(b) represent the results of a multivariate analysis on the effect of sponsor identity on the probability of success and percentage of favorable votes controlling for issue.

Table 4(a): Regression of probability of success on sponsor identity

This table reports results of the regression probability of success on sponsor identity. The dependent variable is a dummy which equals to 1 if the proposal has achieved "success", and 0 otherwise. In columns (1) – (2), the independent variable of interest is "SRI", which is a dummy that equals 1 if the proposal sponsor is SRI, and 0 otherwise. In columns (3) – (4), the independent variable of interest is "Pension", which is a dummy that equals 1 if the proposal sponsor is Pension, and 0 otherwise. In columns (5) – (6), the independent variable of interest is "SRI_and_pension", which is a dummy that equals 1 if the proposal sponsor is an SRI or a pension fund, and 0 otherwise. Issue type is controlled in the regressions using environmental versus social specifications, or all the issue areas. The control variables include firm size and leverage. Industry is controlled by Fama-French 48 industry classification, and year fixed effects are controlled as well. Standard errors are clustered by firm. t-Statistics are in parentheses. The numbers in the table represent marginal effects of changes in independent variables on the dependent variable. ***, ** and * indicate significance of the coefficient at the 1%, 5% and 10% levels, respectively.

Sponsor identity	SRI		Pension		SRI_and_pension	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
SRI	0.104***	0.102***				
	(6.15)	(5.64)				
Pension			0.120***	0.108***		
			(5.71)	(5.45)		
SRI_and_pension					0.152***	0.118***
					(9.58)	(7.04)
Environment	0.027		0.058***		0.040**	
	(1.35)		(2.81)		(2.31)	
Size	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***
	(5.38)	(5.13)	(5.40)	(4.76)	(5.01)	(4.88)
Leverage	-0.014	-0.001	-0.028	-0.029	-0.016	-0.008
	(0.61)	(0.05)	(1.23)	(0.40)	(0.75)	(0.38)
All the issue areas	No	Yes	No	Yes	No	Yes
All the issue areas interact with SRI	No	Yes	No	No	No	No
All the issue areas interact with Pension	No	No	No	Yes	No	No
All the issue areas interact with SRI_and_pension	No	No	No	No	No	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.081	0.108	0.081	0.115	0.094	0.115
Observations	5,399	5,399	5,399	5,398	5,399	5,399

Table 4(a) present the results of a probit regression:

$$Success_{itr} = \beta_0 + \beta_1 * SRI_{itr} + \beta_2 * Issue\_type_{itr}$$
$$+ \beta_3 * SRI * Issue\_type_{itr} + \beta_4 * X_{it} + \varepsilon_{itr},$$

where the dependent variable Success equal to 1 if the proposal is successful, and 0 otherwise. The main independent SRI is a dummy variable, which equals to 1 if the proposal sponsor is an SRI, and 0 otherwise. i refers to firm i, r refers to proposal r, and t refers to time t. We also control for the type of issues, which are divided into two large categories: environmental and social. The variable Environmental is a dummy which equals to 1 if the proposal is related to an environmental issue and 0 if the proposal is related to social issue. In model (2), issues are specified using subcategory of environmental and social issues, for example, climate change, sustainable reporting, labor issues, and so on. Interaction terms between SRI and issue type are also included in the regression. Moreover, we control for firm size, measured by market capitalization and firm leverage. In robustness checks, we also control for institutional shareholding of the firm. Industry fixed effect is controlled by using Fama-French 48 industry specification, and year fixed effect is also applied. Standard errors are clustered by each firm. In models (3) and (4) of Table 4(a), SRI dummy is replaced with Pension dummy, where pension equals 1 if the proposal sponsor is a pension fund, and 0 otherwise. In models (5) and (6), SRI dummy is replaced with SRI_and_pension, which equals 1 if the proposal sponsor is an SRI or a pension fund.

After including issues and firm controls, the main independent variable SRI is statistically significant under all model specifications. SRI and pension fund sponsored proposals have a significantly higher success rate. All else equal, when SRI is acting as a proposal sponsor, the

success rate is significantly improved by around 10.2% under model 2 specification where all issue types are controlled. This confirms the superior negotiation power of SRI in environmental and social proposal filing. Pension fund filers alone also improve the success rate by around 10.8. On average, environmental related proposals receive higher probability of success than social proposals. [4]

In Table 4(b), we investigate how proposal sponsor identity may have impact on the voting percentage of the proposal. Columns (1) and (2) test the regression:

$$Y_{itr} = \beta_0 + \beta_1 * SRI_{itr} + \beta_2 * Issue\_type_{itr} + \beta_3 * SRI * Issue\_type_{itr} + \beta_4 * X_{it} + \varepsilon_{itr},$$

where Y represents the percentage of vote in favor of the proposal. All the independent variables and control variables are the same as in Table 4(a). Columns (3) and (4) test for the impact of a pension sponsor while columns (5) and (6) test for the interactions between SRI and pension sponsors.

[4] We also test for (i) a restricted sample with only one proposal per target firm at a given year, to mitigate the concern that the result is driven by target firms with multiple proposals, and (ii) a restricted sample with only proposals at negotiation stage (those did not make it to voting at AGM) since proposals have very different success rate for the two stage. We find that the results are similar, with similar significance level and similar or higher magnitude. The marginal effect on success under (i) is around 11% for SRI, 13% for pension, and 17% and 13% for SRI and pension under two model specifications, and the marginal effect on success under (ii) is around 13%-14% for SRI, 19% for pension, and 19% and 24% for SRI and pension under two model specifications.

Table 4(b): Regression of percentage of vote in favor on sponsor identity

This table reports results of the regression of percentage of vote in favor on sponsor identity. The dependent variable is the percentage of vote in favor the proposal gets when it is voted during the AGM. In columns (1) – (2), the independent variable of interest is "SRI", which is a dummy that equals 1 if the proposal sponsor is SRI, and 0 otherwise. In columns (3) – (4), the independent variable of interest is "Pension", which is a dummy that equals 1 if the proposal sponsor is Pension, and 0 otherwise. In columns (5) – (6), the independent variable of interest is "SRI_and_pension", which is a dummy that equals 1 if the proposal sponsor is an SRI or a pension fund, and 0 otherwise. Issue type is controlled in the regressions using environmental versus social specifications, or all the issue areas. The control variables include firm size and leverage. Industry is controlled by Fama-French 48 industry classification, and year fixed effects are controlled as well. Standard errors are clustered by firm. t-Statistics are in parentheses. The numbers in the table are the coefficients of independent variables. ***, ** and * indicate significance of the coefficient at the 1%, 5% and 10% levels, respectively.

Sponsor identity	SRI		Pension		SRI_and_pension	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
SRI	2.071**	2.646				
	(2.19)	(1.04)				
Pension			5.645***	4.466***		
			(5.86)	(3.09)		
SRI_and_pension					5.645***	4.466***
					(5.86)	(3.09)
Environment	-3.095***		-1.688**		-1.397	
	(3.19)		(2.02)		(1.39)	
Size	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***	-0.00***
	(4.12)	(4.50)	(4.26)	(4.33)	(4.06)	(4.32)
Leverage	-1.002	-1.020	-1.307	-1.090	-1.029	-1.141
	(1.16)	(1.38)	(1.56)	(1.54)	(1.25)	(1.61)
All the issue areas	No	Yes	No	Yes	No	Yes
All the issue areas interact with SRI	No	Yes	No	No	No	No
All the issue areas interact with Pension	No	No	No	Yes	No	No
All the issue areas interact with SRI_and_pension	No	No	No	No	No	Yes
Industry fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.255	0.325	0.271	0.339	0.278	0.338
Observations	2,940	2,940	2,940	2,940	2,940	2,940

Consistent with the results in Table 4(a), pension funds have a positive and significant impact on the percentage of vote in favor of a proposal. If the proposal sponsor is a pension fund, the vote in favor during the AGM significantly increased by around 2-6%. SRI sponsor also increase the vote in favor. Yet compared to pension funds, SRIs have less power and

impact on the voting results of the proposal, possibly due to the fact that they only own small percentage of target firm's shares. The magnitude of effect is smaller (2-3%), and the effect is insignificant in one model specification. SRI's impact on proposal is stronger in terms of successful negotiation before the AGM as shown in Table 4(a). [5] From the results, it seems that SRI funds have the expertise especially in the negotiation stage of the environment and social proposal filing. If a shareholder is interested in pressuring the target firm on environmental and social issues to achieve effective activism, it may be a good strategy to allocate proposal filing job to an SRI fund to improve the success rate. For matters that may be hardly negotiable during the first stage, pension funds, who own more outstanding shares of the target firm, may have stronger impact on the voting outcome of the proposal when it comes to voting in the AGM.

In the un-tabulated results, individual proposal sponsor significantly reduces the success rate, as well as the vote in favor. This may be due to the fact that individual sponsors are usually unorganized shareholder, who own very little outstanding shares of the target firm, and may not possess certain negotiation skill or even have the opportunity to negotiate with the management due to poor visibility. Union sponsored proposals have a significantly lower success rate but they have no clear impact on the voting results. This suggests that union representatives may be poor in negotiation with the target management. Foundations, religious group and special interest proposal sponsors show mixed results under different model specifications, in terms of success rate and vote in favor percentage.

[5] We also test for a restricted sample with only one proposal per target firm at a given year. The effect of SRI on % of favorable vote is insignificant, while the effect of pension is similar, around 5%-6% using two model specifications.

4.1.1. Matching

Some may worry that SRIs or Pensions select firms to target, based on target firm's characteristics, or proposal issues – they may target firms that have certain characteristics or those proposals that are more easily negotiated, or more likely to get higher vote in favor. To address the potential selection bias issue, we divide my full proposal sample into target sample and control sample. First, we take all proposals that are sponsored by SRIs to be my target sample. Then we construct control sample with proposals that are in the same proposal issue area, same year, and the proposal target firm in my control sample has the same industry (by 3-digit SIC), firm size and market-to-book percentile as my target sample, where firm size and market-to-book percentile are decided using 10 x 10 sorted percentile portfolios in the full Compustat database. After matching, the target sample and control sample have similar proposals that target firms with similar firm characteristics, but differ in sponsor identity. The results are shown in Table 4c.

Table 4(c): Matching results for SRI as targets

This table reports mean, standard deviation, and t-statistics for target sample versus matched sample after matching. Target sample include proposals that are sponsored by SRIs. Column (1) reports number of observations. Columns (2) and (4) report means for probability of success, and percentage of vote in favor respectively. Columns (3) and (5) report standard deviation for the same two variables respectively. T-statistics and significance levels are also reported. Panel A shows results for target sample with all controls matched on 10x10 size and market-to-book percentile portfolios in Compustat. Panel B restrict the controls to those that are not sponsored by pensions. Panel C is similar to A, while expand the matching to 5x5 size and market-to-book percentile portfolio, for those that are not matched by 10x10 percentile portfolio. Panel D is similar to C, but excluding controls sponsored by pensions.

Target = SRI		**Probability of success**		**Percentage of vote in favor**	
	Obs	**Mean**	**Std.**	**Mean**	**Std.**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Panel A: Matched on 10x10 size, market-to-book					
Target firms	193	0.311	0.464	8.028	12.514
Matched firms	304	0.217	0.413	9.514	13.140
t-stat		2.35		-1.25	
Sig. level		**			
Panel B: Matched on 10x10 size, market-to-book, excluding pension in controls					
Target firms	155	0.290	0.455	7.86	12.302
Matched firms	234	0.209	0.408	7.638	11.954
t-stat		1.83		0.18	
Sig. level		*			
Panel C: Matched on 10x10, and 5x5 size, market-to-book					
Target firms	249	0.341	0.475	7.691	12.125
Matched firms	381	0.236	0.425	9.542	13.015
t-stat		2.90		-1.79	
Sig. level		***		*	
Panel D: Matched on 10x10, and 5x5 size, market-to-book, excluding pension in controls					
Target firms	198	0.318	0.467	7.709	12.007
Matched firms	285	0.221	0.416	7.823	12.044
t-stat		2.40		0.10	
Sig. level		**			

After matching, the proposals sponsored by SRIs still achieves more success, and the difference is statistically significant. The magnitude is also large, around 10%. The percentage of vote in favor is not significantly different from proposals sponsored by others. The results in line with previous results. We use different specifications for matching, and details are

reported in the table. In general, the statistical power for the difference in success becomes stronger when we include more observations in the controls, and less strong when excluding pension sponsor in the controls, as pension sponsors also improve probability of success.

Next we example when the proposals are sponsored by pensions, and sponsor by SRI or pensions. The results are reported in Table 4d and Table 4e. In Table 4d, the statistical power for both probability of success of vote in favor become stronger we include more observations in the controls, but is not changed much whether we include or not include SRI sponsors in the controls. In Table 4e, the statistical power become stronger not only when we include more observations in the controls, but also when we restrict the probability of success results on negotiation stage, and restrict the % of vote in favor to proposals reaching voting stage. The reasons are due to the low success probability when proposal reaching voting, and zeros in % of vote in favor for proposals stop at negotiation stage.

Table 4(d): Matching results for Pension as targets

This table reports mean, standard deviation, and t-statistics for target sample versus matched sample after matching. Target sample include proposals that are sponsored by Pensions. Column (1) reports number of observations. Columns (2) and (4) report means for probability of success, and percentage of vote in favor respectively. Columns (3) and (5) report standard deviation for the same two variables respectively. T-statistics and significance levels are also reported. Panel A shows results for target sample with all controls matched on 10x10 size and market-to-book percentile portfolios in Compustat. Panel B restrict the controls to those that are not sponsored by SRIs. Panel C is similar to A, while expand the matching to 5x5 size and market-to-book percentile portfolio, for those that are not matched by 10x10 percentile portfolio. Panel D is similar to C, but excluding controls sponsored by SRIs.

Target = Pension		**Probability of success**		**Percentage of vote in favor**	
	Obs	**Mean**	**Std.**	**Mean**	**Std.**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**
Panel A: Matched on 10x10 size, market-to-book					
Target firms	153	0.301	0.460	14.178	15.677
Matched firms	222	0.221	0.416	9.189	12.506
t-stat		1.75		3.42	
Sig. level		*		***	
Panel B: Matched on 10x10 size, market-to-book, excluding SRI in controls					
Target firms	117	0.291	0.456	13.884	15.761
Matched firms	155	0.200	0.401	9.723	12.638
t-stat		1.74		2.42	
Sig. level		*		**	
Panel C: Matched on 10x10, and 5x5 size, market-to-book					
Target firms	222	0.338	0.474	13.959	15.879
Matched firms	291	0.244	0.430	9.078	12.492
t-stat		2.34		3.90	
Sig. level		**		***	
Panel D: Matched on 10x10, and 5x5 size, market-to-book, excluding SRI in controls					
Target firms	168	0.315	0.466	14.078	16.075
Matched firms	205	0.215	0.412	9.783	12.746
t-stat		2.22		2.88	
Sig. level		**		***	

Table 4(e): Matching results for SRI or Pension as targets

This table reports mean, standard deviation, and t-statistics for target sample versus matched sample after matching. Target sample include proposals that are sponsored by Pensions or SRIs. Column (1) reports number of observations. Columns (2) and (4) report means for probability of success, and percentage of vote in favor respectively. Columns (3) and (5) report standard deviation for the same two variables respectively. T-statistics and significance levels are also reported. Panel A shows results for target sample with all controls matched on 10x10 size and market-to-book percentile portfolios in Compustat. Panel B calculates probability of success only based on proposals at the negotiation stage, and percentage of vote in favor only based on proposals that reaches voting stage. Panel C is similar to A, while expand the matching to 5x5 size and market-to-book percentile portfolio, for those that are not matched by 10x10 percentile portfolio. Panel D is similar to B, but expanding the matching to 5x5 percentile portfolio.

Target = Pension or SRI	**Probability of success**			**Percentage of vote in favor**		
	Obs	**Mean**	**Std.**	**Obs**	**Mean**	**Std.**
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
Panel A: Matched on 10x10 size, market-to-book						
Target firms	251	0.303	0.460	251	10.420	14.217
Matched firms	354	0.209	0.407	354	8.460	12.436
t-stat		2.64			1.80	
Sig. level		***			*	
Panel B: Matched on 10x10 size, market-to-book*						
Target firms	104	0.702	0.460	147	17.793	14.630
Matched firms	146	0.500	0.502	208	14.398	13.336
t-stat		3.25			2.27	
Sig. level		***			*	
Panel C: Matched on 10x10, and 5x5 size, market-to-book						
Target firms	340	0.326	0.470	340	10.531	14.329
Matched firms	461	0.219	0.414	461	8.829	12.633
t-stat		3.43			1.78	
Sig. level		***			*	
Panel D: Matched on 10x10, and 5x5 size, market-to-book *						
Target firms	145	0.731	0.445	195	18.363	14.637
Matched firms	187	0.529	0.500	274	14.855	13.382
t-stat		3.82			2.69	
Sig. level		***			***	

Table 4(g) reports similar results in a regression setting. The results are in line with the previous matching results as well as results in 4(a) and 4(b). If a proposal is sponsored by pension funds, both probability of success and % vote in favor improve. If a proposal is sponsored by SRIs, probability of success improves.

Table 4(f): Matching regression results

This table reports results of the regression probability of success or percentage of vote in favor on targets. The independent variable equals to 1 if the proposal is in target sample, and 0 if in control sample. For regression of probability of success on targets, the dependent variable is a dummy which equals to 1 if the proposal has achieved "success", and 0 otherwise. Probit regression is used and marginal effects are reported. For regression of percentage of vote in favor on targets, the dependent variable is % of vote in favor, and a pooled OLS regression is used and the coefficients in front of target are reported. Panel A reports results when target sample is chosen as proposals sponsored by SRI. Panel B reports results when target sample is chosen as proposals sponsored by Pensions. Panel C reports results when target sample is chosen as proposals sponsored by SRIs or Pensions. Columns (1) and (3) report results of targets with all controlled matched on 10x10, and 10x10 and 5x5 percentile portfolio respectively. For Panel A and Panel B, columns (2) and (4) report similar results to columns (1) and (3), but restrict the controls to excluding pensions in Panel A, and excluding SRIs in Panel B. For Panel C, columns (2) and (4) reports similar results columns (1) and (3) but calculates probability of success only based on proposals at the negotiation stage, and percentage of vote in favor only based on proposals that reaches voting stage. T-statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels.

Panel A: Target =SRI				
	(1)	(2)	(3)	(4)
Probability of success	0.091**	0.079*	0.103***	0.095**
	2.36	1.83	2.92	2.42
Percentage of vote in favor	-1.486	0.222	-1.85*	-0.115
	-1.25	0.18	-1.79	-0.10
Observations	497	389	630	483

Panel B: Target = Pension				
	(1)	(2)	(3)	(4)
Probability of success	0.079*	0.089*	0.093**	0.099**
	1.76	1.75	2.36	2.24
Percentage of vote in favor	4.989***	4.161**	4.881***	4.295***
	3.42	2.42	3.9	2.88
Observations	375	272	513	373

Panel C: Sponsor = Pension or SRI				
	(1)	(2)	(3)	(4)
Probability of success	0.092***	0.200***	0.105***	0.200***
	2.66	3.41	3.45	4.01
Observations	605	250	801	332
Percentage of vote in favor	1.961*	3.395**	1.702*	3.507***
	1.80	2.27	1.78	2.69
Observations	605	355	801	469

4.2. Short-term market reaction

This section examines how does the stock market react to the proposal filing. Market reaction is a direct measure of investors' expectation of the impact of the shareholder activism to the target firm. Follow Gillan and Starks (2000), Firstly, we evaluate the market reaction on the proxy filing date, as this is the date when the market first learns about the shareholder proposal and this information becomes public. Secondly, we also test on the AGM date, where the voting results are first released to the market. The models are estimated over 255 days, beginning 46 days before the event date. CAR over the event window on date of event and (-1, 1) event window are calculated. On the filing date, we first evaluate the market reaction on the whole sample and then divide the sample according the sponsor identity and test for each subsample. On the AGM date, we also first evaluate the market reaction on the whole sample and then divide the sample by proposal successfulness. The results are reported in Table 5(a) and Table 5(b). For simplicity, only alphas and related statistics and reported and other coefficients such as market or four-factor loadings are not reported. The results reported are based on an equal-weighted portfolio using the four-factor model. They are robust to applying value-weighted portfolios or using the market model. Statistical significance is measured using the Standardized Cross-sectional Test (Boehmer et al 1991), and Generalized Sign Test (Cowan 1992).

4.2.1. Filing date market reaction

As reported on Table 5, on the filing date (t_0), the whole sample exhibits a statistically significant positive CAR of 4 basis point. Decomposing the sample by sponsor identity, we find that the SRI sponsored subsample and the pension fund sponsored subsample both earn

statistically significant positive CAR; SRI sponsor earns 8 basis point CAR while pension fund sponsor earns 5 basis point CAR. Foundation sponsor also earns positive CAR, but less significant in statistical terms while union sponsor earns negative CAR. [6]

The bottom part of Table 5(a) represents the results for the (-1, 1) event window. The effect is weaker but still statistically significant for the whole sample as well as for the SRI and pension fund sponsored subsamples. The effect of SRI sponsored proposals is less strong than the 22 basis point effect obtained in another working paper Wei (2017) where only SRI filer with sustainable responsible investing forum member in the U.S. is considered. This suggests that member SRIs have better experience and expertise in environmental and proposal filing, which may attract more investor attention and more positive market reaction.

Table 5(a): Abnormal return for ES proposals around filing date by sponsor identity

This table reports short-term market reaction for the ES shareholder proposals around filing date by sponsor identity. Filing date abnormal return and event window of (-1, 1) are tested. For each test, Standard cross-sectional test and generalized Z test scores (significance marketed in brackets) are reported for computation statistical significance. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels.

Date of filing	Full sample	SRI	Pension	Religious	Foundation
(t=0)	0.04%***	0.08%**	0.05%**	0.03%	0.06%*
StdCsect	(3.65)	(2.23)	(2.26)	(1.46)	(1.68)
Sign Z	(2.70)	(0.72)	(2.48)	(1.16)	(0.98)
(t-1, t+1)	0.003%***	0.01%**	0.01% (**)	-0.13%	0.11%
StdCsect	(2.79)	(2.00)	(1.33)	(-0.13)	(1.24)
Sign Z	(2.90)	(1.50)	(2.55)	(-0.29)	(0.98)
N	5,024	1,113	888	920	682

[6] For robustness check, we also test for (i) a restricted sample with only one proposal per target firm at a given year, and (ii) a restricted sample with only proposals before 2011, to mitigate the concern that the proposal filing effect may not come from ES proposals, but vote on executive compensation, since "say-on-pay" proposals are only included in the proxy material after 2011, we test for the sub-sample before 2011. The significant level and magnitude of CAR for both tests are similar to the results shown in Table 5(a).

Table 5(a): Abnormal return for ES proposals around the filing date by sponsor identity (cont'd)

Date of filing	Special group	Union	Individual	Undisclosed
(t=0)	0.12%	-0.04% (*)	-0.09%	0.06%
StdCsect	(1.19)	(-0.62)	(-0.80)	(0.69)
Sign Z	(0.22)	(-1.89)	(-1.20)	(1.18)
(t-1, t+1)	0.06%	-0.03%	-0.26%	0.29***
StdCsect	(0.92)	(0.89)	(-0.90)	(2.97)
Sign Z	(0.57)	(0.25)	(-1.20)	(3.73)
N	132	214	462	518

4.2.2. AGM date market reaction

On the AGM date, the information on the voting outcome is revealed to the market. Therefore, we test the market reaction both on the whole sample, and the subsamples measured by the successfulness of the proposal. Panel A of Table 5(b) includes all the proposal sponsors while Panel B is restricted to the sample of only SRI proposal sponsors.

On both the AGM date and the (-1, 1) event window, the whole sample and SRI sub-sample both earn statistically significant positive CAR, with SRI sub-sample earning higher CARs. For the (-1, 1) event window, the SRI sub-sample earns 49 basis point CAR, compared to the whole sample earning around 17 basis point CAR. T-test shows that the SRI sponsored sub-sample earns highly statistically significant CAR than all the others excluding SRI sponsored sub-sample. Breaking down the sample according to the successfulness of the proposals, we find that the significant positive CAR comes mainly from the successful sample. For the (-1, 1) event window, successful sample of SRI-filed proposals earns 93 basis point CAR, while the average successful sample earns 29 basis point. The difference is statistically significant.

Table 5(b): Abnormal return for ES proposals around meeting date

This table reports summary statistics on the short-term market reaction for ES shareholder proposals around the meeting date. Panel A reports results for the full sample; panel B reports results for the SRI sponsored proposal sub-sample. We examine the abnormal return on the meeting date (t=0) and over an event window of (-1, +1). Column (1) reports results for the full sample. Columns (2) and (3) report results for the sub-samples of successful and unsuccessful proposals. For each test, standard cross-sectional test and generalized Z test scores (significance marketed in brackets) are reported for computing statistical significance. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels.

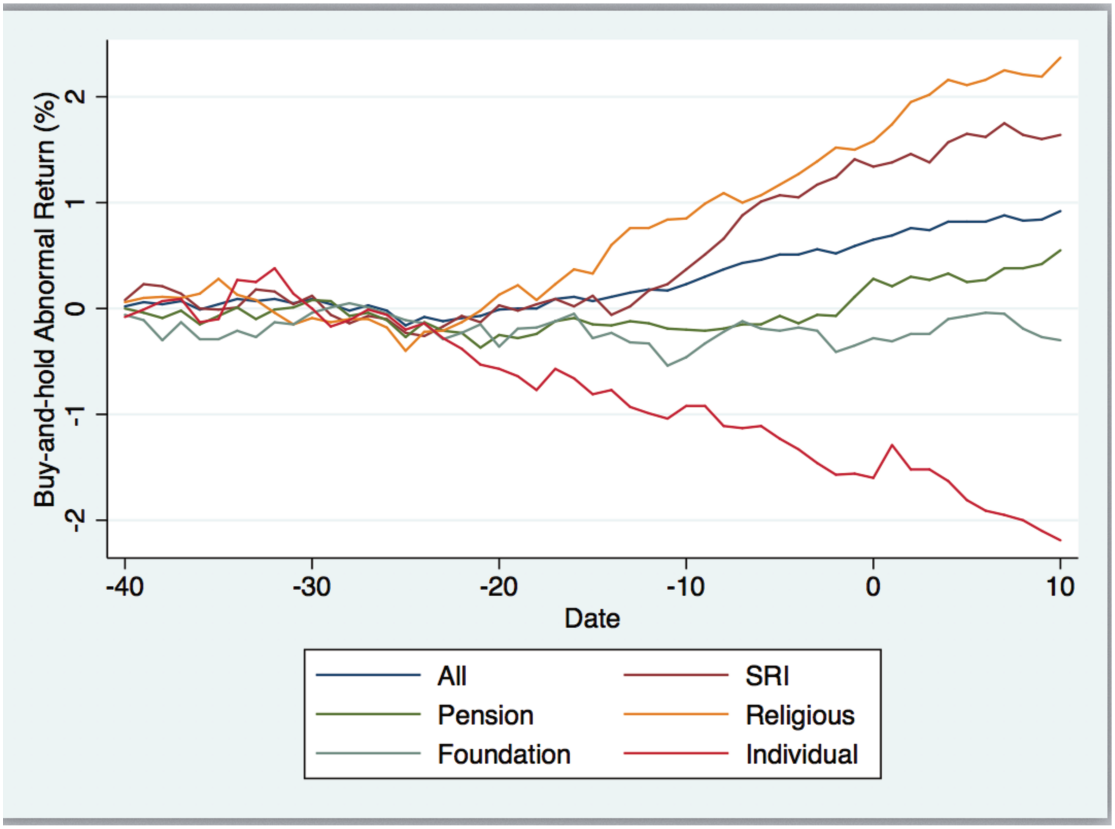
Panel A: Full sample		**Full sample**	**Successful sample**	**Unsuccessful sample**
		(1)	(2)	(3)
Date of meeting	**(t=0)**	0.09%**	0.17%***	0.06%
	StdCsect	(2.52)	(3.05)	(0.99)
	Sign Z	(1.8)	(2.37)	(0.64)
Days	**(t-1, t+1)**	0.17%***	0.29***	0.13%**
	StdCsect	(4.02)	(3.57)	(2.54)
	Sign Z	(4.21)	(3.45)	(2.82)
N		4,959	1,384	3,575

Panel B: SRI sub-sample		**SRI sub-sample**	**Successful sample**	**Unsuccessful sample**
		(1)	(2)	(3)
Date of meeting	**(t=0)**	0.13%*	0.31%***	0.01%
	StdCsect	(1.73)	(2.71)	(-0.27)
	Sign Z	(1.52)	(1.46)	(0.79)
Days	**(t-1, t+1)**	0.49%***	0.93%***	0.22%*
	StdCsect	(4.15)	(4.53)	(1.7)
	Sign Z	(3.34)	(3.33)	(1.63)
N		1,096	417	679

To better illustrate the economic magnitude of CAR, we create a buy-and-hold portfolio from 10 days before filing date, to 10 days after AGM date. Define AGM date as time 0, we test the event window (-40, 10). Figure 2 reports the mean of buy-and-hold abnormal returns for the full sample, and sub-samples by sponsor identity.

Figure 2: Buy-and-hold abnormal return for ES proposals: from filing to AGM date

This figure reports buy-and-hold abnormal return for ES proposals from 10-days before filing date to 10-days after meeting date. We test for the mean of the full sample, and the sub-samples by sponsor identity, namely SRI, pension, religious group, foundation, and individuals.



Buy-and-hold abnormal return starts at similar magnitude for different sponsor groups, but gradually diverge. Religious group earns the highest buy-and-hold abnormal return, followed by SRI and pension. Individual sponsor group earns the lowest buy-and-hold abnormal return, and the second worst is foundation group. The results are largely consistent with our previous findings. Religious group obtains high success rate, while the proposal issues they raised are more related to human rights. SRI and pension group, as we have shown, both obtain high success rate, and improve the vote in favor rates if the proposal goes to the voting stage.

Individual group, again earns low buy-and-hold abnormal return, consistent with the fact that their proposals usually fail.

To elevate potential worries on confounding events during the period to compute buy-and-hold abnormal return, we perform some robustness checks for different windows. We compute buy-and-hold return from 10 days before filing to 20 days after filling, to avoid earnings announcement date. For those firms that have earnings announcement dates falling in this period, we eliminate the related event. The results remains the same.

4.3. Long-term performance

4.3.1. Long-term operating performance

We follow Dimson et al. (2015) in using a difference-in-differences setting to test whether there is an operating performance difference after the proposal between SRI-targeted firm and the firm targeted by others. We run the following regression:

$$ROA_{itr} = \beta_0 + \beta_1 * SRI_{itr} + \beta_2 * Post_{it} + \beta_3 * SRI_{itr} * Post_{it} + \beta 4\ Size_{itr} + \beta 5\ Leverage_{itr} + \beta 6\ Success_{itr} + \varepsilon_{itr}$$

The dependent variable, ROA, is the return on assets.[7] Post is a dummy variable equal to 1 if the observation is after the year of proposal filing, and 0 otherwise. SRI is a dummy variable if the proposal is filed by SRIs. The regressions include size and leverage and a dummy variable, Success, which is equal to 1 if the proposal is successful and 0 otherwise. Firm and year fixed effects are also used.

[7] Detailed definitions of all the variables in this paper are presented in Appendix II.

The coefficient for the interaction term POST*SRI is positive and significant for models (1) and (2), indicating that SRI-filed target firms receive better ROA than firms targeted by other sponsors, although the economic magnitude is quite small. In model (3) when success is also included as the control variable. Success affects ROA positively and significantly while the coefficient for the interaction term POST*SRI becomes marginally insignificant. The results suggest that target firms associated with SRI-sponsored proposals obtain better ROA. The result is explained partially by larger numbers of successful SRI-sponsored proposals.

Table 6(a): Long-term effect of sponsor identity on ES proposals

This table summarizes difference-in-differences regression results on the target firms for the operating performance. Regression results of the target firms based on the following specifications:

$$ROA_{itr} = \beta_0 + \beta_1 * SRI_{itr} + \beta_2 * Post_{it} + \beta_3 * SRI_{itr} * Post_{it} + \beta 4\ Size_{itr} + \beta 5\ Leverage_{itr} + \beta 6\ Success_{itr} + \varepsilon_{itr}$$

The dependent variable is the return on assets (ROA). The independent variables include a dummy variable (POST) if the observation is for years after the proposal is filed (referred as year 0), a dummy variable (SRI) if the proposal is filed by SRI, an interaction term between these two dummies (Post x SRI) and a set of controls such as firm size, leverage and success. Firm and year fixed effects are also included. All variables are winsorized at 1st and 99th percentile. T-statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels. The regression results where the variables are measured 1 year after the filing of the proposal compared the year before the filing.

Variables	**(1)**	**(2)**	**(3)**
POST	-0.00147	-0.00140	-0.00146
	(1.58)	(1.48)	(1.56)
SRI	0.00576***	0.00577***	0.00557***
	(2.59)	(2.75)	(2.65)
POST * SRI	0.00381*	0.00400*	0.00371
	(1.66)	(1.76)	(1.62)
Size		2.60e-07***	2.60e-07***
		(2.84)	(2.84)
Leverage		-0.00553*	-0.00557*
		(1.90)	(1.92)
Success			0.00305*
			(1.75)
Year fixed effects	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
R-squared	0.789	0.796	0.797
N	10,395	10,353	10,353

4.3.2. Long-term market reactions

We also look at long-term market reactions after proposal filings. For this, we compute the long-term calendar-time abnormal return (CTAR) for the whole sample, the portfolio of target firms associated with successful proposal outcome, and those with unsuccessful outcome.

CTAR is computed as follows and results are shown in Table 6 (b):

$$CTAR_{jt}=R_{jt}-R_{ft}-(\beta_{Mj}*(R_{Mt}-R_{ft})+\beta_{SMBj}*SMB_t+\beta_{HMLj}*HML_t$$

Table 6(b): Long-term calendar-time abnormal return analysis

This table displays calendar-time abnormal return (CTAR) regression results for the full sample and SRI subsample separated into successful and unsuccessful proposals based on the following specification:

$$CTAR_{jt} = R_{jt}-R_{ft} - (b_j*(R_{Mt}-R_{ft}) + S_j*SMB_t + h_j*HML_t$$

Fama-French three factor model is used here. Alpha and the coefficients for the three factors are reported. T-statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels.

Panel A: Full sample	**Successful sample**			**Unsuccessful sample**		
	For 1 year	**For 2 years**	**For 3 years**	**For 1 year**	**For 2 years**	**For 3 years**
$\boldsymbol{\alpha}$	0.31%**	0.31%***	0.29%***	0.14%*	0.14%*	0.16%**
	(2.30)	(2.75)	(2.94)	(1.45)	(1.63)	(1.84)
$\boldsymbol{\beta MKT}$	1.07***	1.03***	1.03***	0.96***	0.94***	0.94***
	(35.55)	(40.17)	(47.40)	(45.85)	(47.87)	(49.08)
$\boldsymbol{\beta HML}$	-0.08**	-0.08**	-0.07**	-0.14***	-0.12***	-0.11***
	(-1.92)	(-2.24)	(-2.26)	(-4.93)	(-4.43)	(-4.31)
$\boldsymbol{\beta SMB}$	0.43***	0.43***	0.40***	0.40***	0.43***	0.42**
	(9.73)	(11.70)	(12.94)	(13.35)	(15.22)	(15.28)

Table 6(b): Long-term calendar-time abnormal return analysis (Cont'd)

Panel B: SRI sub-sample	Successful sample			Unsuccessful sample		
	For 1 year	**For 2 years**	**For 3 years**	**For 1 year**	**For 2 years**	**For 3 years**
α	0.56%***	0.30%*	0.43%***	0.02%	0.04%	0.06%
	(2.58)	(1.52)	(2.52)	(0.12)	(0.31)	(0.48)
βMKT	1.06***	1.03***	1.09***	1.00***	0.97***	0.98***
	(22.96)	(23.60)	(28.00)	(28.17)	(31.88)	(33.19)
βHML	-0.04	-0.05	0.02	0.05	0.07*	0.08**
	(-0.48)	(-0.75)	(0.36)	(0.96)	(1.64)	(2.09)
βSMB	0.30***	0.28***	0.28***	0.40***	0.43***	0.39***
	(4.52)	(4.48)	(5.14)	(7.83)	(9.83)	(9.14)

Based on the results reported in Panel A, the successful sample filed by all filers earns positive significant monthly CTAR of 0.31%, translating into around 3.7% annually. This alpha remains similar throughout three years after the proposal filing. The unsuccessful sample earns lower CTAR. Panel B focuses on SRI-filed proposal sample. Successful sample of SRI-targeted firms earns higher return than the firms targeted by all sponsors (whole sample). Especially for the first year after the proposal filing, successful sample of SRI-targeted firms earns monthly CTAR of 0.56%, translating into 6.7% annually. This number is almost twice as the successful sample filed by all sponsors. T-test shows the difference is statistically significant. This number is also higher than the private engagement effect of around 5% identified in Dimson et al. (2015).

5. Conclusion

Over the past ten years, more and more shareholder proposals are filed by activists, with ES-related issues gaining more attention. Over the period 1997 to 2015, 5,607 ES-related shareholder proposals are filed by different sponsors on issues ranging from climate change,

environmental management, to labor standards and business ethics. SRI funds, religious groups and pension funds are the three most frequent sponsor groups. Unions, foundations, other institutional investors and individuals file as well. In terms of success rate, SRI and pension fund sponsors exhibit higher success rate, even after controlling for the proposal issue. Pension fund sponsors generate significant higher favorable votes at the AGM than other sponsors when the proposals reach to the AGM. The stock market reacts positively on the portfolio of proposal target firms. The average event day CAR is around 4 basis point for all the target firms, while target firms sponsored by SRI and pension fund earn higher event day CAR, corresponding to 0.08% and 0.05% respectively. On the AGM date, the portfolio of target firms associated with successful shareholder proposals earn higher CAR than the unsuccessful ones. The difference for the two in the SRI-sponsored subsample is highly significant. The long-term calendar-time abnormal return (CTAR) analysis show that the successful sample earns significantly higher CTAR than the unsuccessful sample, and the difference is even higher for the SRI-sponsored subsample. A difference-in-differences analysis on the operating performance show that SRI-sponsored target firms generate higher ROA after the proposal filing than firms associated with other sponsors.

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Appendix I: Variable Definitions

Variable name	Definition
Firm size	Market value of equity (in billion $)
Market-to-book	Market value of equity / Book value of equity
Tobin's q	(Market value of equity + Book value of debt) / (Book value of equity + Book value of debt)
Return on assets	Earnings before interest, taxes, depreciation and amortization (EBITDA) / Average total assets
Leverage	Book value of debt / (Book value of debt + Book value of equity)

Appendix II: Media News Extract of a Shareholder Proposal Example

Shell urges shareholders to accept climate resolution

Resolution brought by activist shareholders requires oil firm to test its business model is compatible with global targets to limit global warming

Shell is set to confront the risk that climate change may pose to its future, after backing a resolution from activist shareholders. The resolution, filed by 150 investors who control hundreds of billions of pounds, requires the oil major to test whether its business model is compatible with the pledge by the world's nations to limit global warming to 2C. The resolution, also filed with BP, includes a ban on corporate bonuses for climate-harming activities and a commitment to invest in renewable energy.

"We maintain our commitment to engage with shareholders in this area," said Shell's executive vice president JJ Traynor, in a letter to shareholders, in which he asked them to back the resolution. "We look forward to implementing the resolution should it be passed at the AGM." The proposal will need the support of 75% of shareholders to pass in May.

"This is a turning point and demonstrates the power of activist strategies to deal with climate change," said Catherine Howarth, chief executive of ShareAction, which helped coordinate the resolutions. "This is a huge victory for the climate, which demonstrates the power of positive shareholder engagement," said Elspeth Owens, at environmental legal group ClientEarth, which also helped coordinate the resolutions. "The vast majority of Shell shareholders are now likely to vote in support. This throws down the gauntlet for BP to face up to its climate risk."

Some investors concerned about global warming have chosen to sell off their fossil fuels stocks in a fast-growing campaign of divestment that seeks to stigmatise the companies. They argue that current business models are unsupportable given that over $700bn a year is spent exploring for new oil, gas and coal, despite three-quarters of existing reserves being unburnable if climate change is tackled.

But other investors argue engaging with companies through shareholder resolutions, for example, has more effect. "We think our supportive but stretching shareholder resolutions could help focus attention on this increasingly complex challenge for companies, investors and policy makers," said Helen Wildsmith, at CCLA, a UK-based fund manager for charities, churches and local authorities, many of whom co-filed the BP and Shell resolutions.

“We view Shell’s decision as a potential turning point in investor engagement with the industry on carbon asset risk,” said Andrew Logan, oil & gas program director at the sustainability group Ceres, whose Investor Network on Climate Risk has 110 institutional investors with collective assets of $13 trillion. “However, investors will be closely scrutinizing Shell’s disclosures, particularly in light of its decision today to greenlight drilling in the Alaskan Arctic, one of the highest cost and highest risk projects in its entire portfolio.”

Major funds around the world are becoming increasingly concerned that limits on carbon emissions will harm the finances of fossil fuel companies and lead to investors losing money. One of the largest institutional investors in the world, the $177bn New York State Common Retirement Fund, issued a new warning on Thursday. “We are obviously very concerned about the wellbeing of the fund, which is heavily invested in energy stocks worldwide,” said Pete Grannis, New York State deputy comptroller, whose office is the sole trustee of the fund, which has one million members.

CHAPTER THREE

GO GREEN WITH SOCIALLY RESPONSIBLE INVESTING? SOCIALLY RESPONSIBLE INVESTING PERFORMANCE DURING THE FINANCIAL CRISIS

Abstract

This chapter studies the performance of socially responsible investing (SRI) mutual funds, especially during the financial crisis. The findings show that SRI funds earn worse crisis-period returns than conventional funds. As SRI funds invest more in high corporate socially responsible (CSR) firms, the results are inconsistent with earlier evidence that high CSR firms earns superior crisis-period stock returns than low CSR firms. We explain this by longer investor horizon and more prosocial clientele of SRI funds. SRI funds on average have longer investor horizon than conventional funds, and fund flows of SRIs are less sensitive to past returns compared to conventional funds. SRIs poor crisis period returns do not seem to persist over the longer term.

"The concept of investing in assets that offer measurable social or environmental benefits as well as financial returns has come a long way from its modest roots in the early 2000s. A niche product is inching into the mainstream."

- The Economist, January 5 2017

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1. Introduction

Socially responsible investing (SRI) has been growing phenomenally in recent years. It has drawn major media attention and a growing number of socially-conscious investors. In the U.S., assets under management using SRI strategies expanded by 33% to over 8 trillion in just two years between 2014 and 2016. SRI funds has grown to around 2 trillion as of 2014. Articles on SRI are often featured in "Economist" nowadays. There are multiple news reports on the Wall Street Journal about major asset managers, such as BlackRock and Goldman Sachs Group, launching more SRI funds.

Yet, many questions remain to be answered in SRI literature. One of the most frequently asked questions is "How well do SRIs perform compared with conventional funds?" In a nutshell, are investors getting better investment returns if they invest in SRIs? On the one hand, some argue that restricting the available investment universe to only socially responsible firms should result in suboptimal allocations and thus reducing investment return for SRIs[18]; On the other hand, studies on corporate social responsibility (CSR) show that CSR create shareholder value in the long run[19]. If so, the strategy to invest in high CSR firms, as most SRIs do, would gain a higher return than conventional funds, when the short-term undervalued high CSR firms receive valuation correction (not undervalued anymore) over the long run. Moreover, high CSR firms

[18] For example, Geczy et al. 2006

[19] For example, Derwall et al. 2004, Heal 2005, Edmans 2011, Servaes and Tamayo 2013, Albuquerque et al. 2018

may have lower risk (eg. litigation risk). Empirical studies on SRI funds report mixed evidence with respect to their return which could be higher, lower, or not statistically different than those reported by convention funds.[20]

Due to the rapid growth of SRI funds, assessing their performance becomes a more important question. The objective of this chapter is to re-visit the important question as to how well do SRIs perform compared with conventional funds. To address this question, we will use a quasi-experiment setting to evaluate SRI performance during the financial crisis. Compared to conventional funds, SRIs rely on a set of specific criteria in order to determine their investment decisions. Therefore, the comparison of investment returns between SRIs and conventional funds is not straightforward. Firstly, the set of firms that SRIs invest in may have very different risk exposures. Hong and Kacperczyk (2008) analyze the cost of holding "sin stocks", which are defined as publicly trading firms involving in producing tobacco, alcohol and gaming. They find that these firms receive higher stock returns, while at the same time facing high litigation risk. Contrary to "sin stocks", firms with high CSR scores have lower litigation risk and represent the universe of firms in which SRIs choose to invest in. Thus, SRIs have a different risk exposure than conventional funds.

Secondly, the portfolio of SRIs and conventional funds may be composed of firms with very different firm characteristics, which may or may not attribute to CSR. Lins et al. (2017) show that firms with high CSR scores earn higher abnormal returns than firms with low scores during the financial crisis, but earn similar abnormal returns in normal times. Their results suggest that high CSR firm characteristics is associated with high returns during the crisis. SRIs holds high

[20] Bauer et al. 2005 show that U.S. SRIs earn higher returns than their conventional peers, while U.K. SRIs earn lower returns not significantly different from their conventional funds. Renneboog et al. 2008 shown SRIs earn lower returns than conventional funds.

CSR firms in their portfolio compared to conventional funds on average. Therefore, a reasonable hypothesis extended from Lins et al. (2017) would be: SRIs earns higher returns than conventional funds during the crisis, since their portfolio holding firms are associated with higher returns and lower risk. We are going to formally test this hypothesis in this chapter. If the results support this hypothesis, then there is evidence to show that SRIs perform better than conventional funds during the crisis. On the other hand, if SRIs underperform during the crisis, or obtain indifferent returns to conventional funds, then there may be reasons other than portfolio holding firms' CSR characteristics or risk exposures. Focusing on the crisis period allows us to make predictions on SRIs performance, and we find surprising results.

Our baseline regression shows that SRIs earn 0.3% to 0.7% less monthly return than non-SRIs, while for buy-and-hold returns, SRIs earn on average 3-5% less than conventional funds during the crisis period. All the numbers are statistically significant. For post-crisis period, although we do not have any prior literature show that firms with different CSR profile earn different returns outside of the crisis period, it is still worth investigating, whether SRI funds perform poorly consistently, or only during the crisis period. Our results further support the baseline results showing that SRIs exhibit lower returns during the crisis. However, they report higher returns during the post-crisis period. Further investigation with special attention to the investor horizon and investment strategies of SRIs and non-SRIs suggests that SRIs tend to hold portfolio firms for longer period, and did not sell their shares as much as non-SRIs during the crisis. SRIs are also more patient towards negative past returns of their portfolio firms.

The contribution of this chapter is threefold. First, it attempts to re-visit the long debating question whether SRI funds earn competitive returns when compared to convention funds. Secondly, it emphasizes on return differential of SRI funds during the crisis and find that SRIs

performed worse during the crisis. The result contradicts the findings of Nofsinger and Varma (2014), who find that SRIs outperform during market crisis, although the significance level is quite weak. Finally, it provides discussions on SRIs' investor horizon, investment strategy and fund flows, and the results are interesting and particularly relevant to individual investors who are socially-conscious and have interest in investing in SRI funds.

The remainder of the chapter is structured as follows. Section 2 reviews the literature and testable hypotheses. Section 3 presents data and a descriptive analysis. Section 4 offers a complete empirical analysis. Section 5 provides a discussion of the results and concludes.

2. Literature review and testable hypotheses

2.1. Literature review

SRI has emerged and been growing over the past decade. Academic papers on SRI have mainly focused on three areas: i) general understanding of SRI, ii) comparison of SRI in different countries, and iii) comparison of SRI performance and money flows to other funds. Schueth (2003) offers an overview of SRI investor's motivations and describes its investment strategies in the U.S. Investors may be interested in SRI either because their management style is aligned with their own personal values or they encourage improvements in quality of life that lead to positive social change.

Screening, shareholder advocacy and community investing are identified as the three major investment strategies of SRI. Screening includes positive screening and negative screening. Positive screening looks at positive attributes of the firms to consider adding them into the investment portfolio, while negative screening examines negative attributes and excludes the

firms in the portfolio. For example, a particular negative screening strategy could be excluding firms that participate in the production of alcohol, tobacco or gambling products. Shareholder advocacy is another way of saying "shareholder activism". SRIs that adopt shareholder advocacy strategy are considered as activist or active investors. They usually involve in the shareholder proposal filing of social topics and engage in the dialogue with the management of the target firms. SRIs focusing on community investing provide essential services to improve the well-being of local residents and try to create positive social changes for the community.

In a review paper, Renneboog et al. (2008) discuss the risk exposure and investor behavior of SRI and concludes that SRI investors are willing to accept suboptimal financial performance to pursue their social ethical objectives. In a subsequent paper, Renneboog et al. (2011) identify heterogeneity of investor clientele in SRIs. They find that social attributes of SRIs weaken the relation between money flow and past returns, especially when they are related to ethical issues. Berry et al. (2013) conduct a survey of investors in order to learn about their concerns with regard to SRIs. Based on their results, it appears that investors prefer holistic terms than exclusionary format when deciding on SRI criteria. Interestingly, this strategy is opposite to the negative screening strategy that many SRIs use.

Hill et al. (2007) examine the holdings of SRIs and their returns across the U.S., Europe and Asia regions. Their findings show that the portfolio companies that SRIs invested in outperform the market in the short run only for European market, and they outperform in the long run for both the U.S. and European market. For Asian market, SRIs do not outperform either in the short run or in the long run. Bauer et al. (2005) also study SRI with an international perspective with a special focus on the U.S. and the U.K. They show that U.S. SRIs earn higher returns than their

conventional peers, while U.K. SRIs earn returns that are not significantly different from their conventional funds.

Finally, two recent studies shed some more light on the SRIs. Bialkowski and Starks (2016) show that the flows to SRIs are more persistent than for conventional funds, which may be explained by investors' nonfinancial considerations. In examining the performance of firms during the financial crisis, Lins et al. (2017) show that firms with high CSR scores generate higher returns than those associated with low CSR scores. They suggest that firms with high CSR scores built up the trust with their stakeholders and investors, and this trust pays off when the overall trust in the market is low during the crisis.

2.2. Testable hypotheses

Based on extant literature, we make the following predictions. First, SRIs perform better during the crisis than conventional funds. SRIs utilize nonfinancial criteria to form their investment strategies such as i) negative screening to exclude sin stocks, ii) active shareholder advocacy to promote ethical and social issues in the firm, and iii) exit strategy when certain objectives are not met. On average, the portfolio firms that SRIs hold exhibit higher CSR scores than those held by conventional funds. As previously mentioned, Lins et al. (2017) find that firms associated with high CSR scores perform better than those with low CSR scores during the crisis. Thus, if SRIs hold firms who perform better during the crisis, it is likely that SRI funds also perform better than conventional funds during the same period.

Second, SRIs exhibit less volatile flows than conventional funds during the crisis. Bialkowski and Starks (2016) show that fund flows to SRI increase generally during the period 1999 to 2011.

SRIs that are members of "USSIF" receive higher flows than other SRIs and conventional funds. It seems that the investors for SRIs have nonfinancial objectives and is less concerned about short term performances. Therefore, we hypothesize that these investors will not pull out their investment as much as other investors of conventional funds during the crisis, so that SRIs have less volatile flows.

3. Data and descriptive statistics

3.1. Data

The data on fund performance and fund characteristics are collected from CRSP survivor-bias-free U.S. Mutual Fund Database in Wharton Research Data Services ("WRDS"). The variables include total net assets, total return, net asset value on a monthly frequency, plus fund characteristics such as fund age, size, fee, front/back load on an annual basis. SRI classification is available from the list of mutual funds who are members of of the U.S. Social Investment Forum ("USSIF"). These SRI funds are voluntary members of the USSIF and have declared themselves to be "socially responsible funds". Upon joining the group, they declare that their investment decisions are based on criteria related to social or ethical issue issues. Holding data is obtained from Thomson Reuters Schedule#12 mutual fund holdings, also available in WRDS. We match the performance data from CRSP with the holding data from Thomson Reuters by using MFLINK in WRDS. The data covers the period going from 2007 to 2013, which is equivalent to the time period covered by Lins et al. (2017).[21] We follow these authors for the definition of the crisis period going from August 2008 to March 2009. In robustness tests, the

[21] In the Robustness test, we also try different time periods, from as early as 2003, to as late as 2016. Our main results stay unchanged.

crisis period is expanded to July 2007 to March 2009 and the results still hold. Time period before crisis period is defined as pre-crisis period, and time period to be post-crisis period.

3.2. Descriptive statistics

Tables 1(a) provides summary statistics while Table 1(b) provides the correlation matrix for the main variables. For the full sample, the mean raw return and adjusted abnormal return are 0.59% and 0.68% respectively. They both exhibit large standard deviation which depicts the high heterogeneity in returns. The raw returns and the adjusted returns are highly correlated. The correlations between raw return and adjusted abnormal returns are as high as 0.88. The correlation for market adjusted return and four-factor adjusted return is 0.93. All the other control variables including fund size, age, fee, and load have low correlation between themselves, although we still find some interesting association. Fund size is positively associated with fund age with correlation of 0.17, which indicates that fund may grow bigger as time passes. Fund fee is also positively associated with fund age with correlation of 0.24, which shows that funds with past track record may charge more than newer funds.

Table. 1: Descriptive Statistics

This table summarizes the descriptive statistics of the main variables. Table 1a provides summary statistics of the main variables and Table 1b provides the correlation matrix. Market adjusted abnormal return is calculated using market model parameters and Four-factor adjusted abnormal return is calculated using Fama-French and Cahart model parameters. The factors are updated monthly, and factor loadings are re-estimated each month based on the data in the previous 36 months. The time period of the data is from 2007 to 2013. All the variables are winsorized at the 1st and 99th percentiles.

1(a): Summary Statistics

	Mean	Std. Dev.	25th Percentile	Median	75th percentile
Raw return (%)	0.59%	4.52%	-0.92%	0.57%	2.88%
Market adjusted abn. Return (%)	0.68%	4.16%	-0.50%	0.47%	2.92%
Four factor adjusted abn. Return (%)	0.65%	4.23%	-0.66%	0.32%	2.90%
Fund size	411.8	1,192.0	5.7	39.6	220.1
Fund age	7.244	4.094	4.000	7.000	11.000
Fund fee	0.484	0.329	0.157	0.499	0.749
Front load	0.021	0.005	0.013	0.028	0.030
Back load	0.006	0.004	0.000	0.003	0.007

1(b): Correlation Matrix

	Raw return	Market adjusted abn Return	Four factor adjusted abn Return	Fund size	Fund ag	Fund fe	Front load
Market adj. abn. Return	0.880						
Four factor adj. abn. Return	0.860	0.932					
Fund size	0.010	0.002	0.003				
Fund age	0.023	0.011	0.019	0.172			
Fund fee	0.005	0.004	0.004	-0.099	0.241		
Front load	0.002	0.005	0.005	-0.014	-0.090	0.030	
Back load	-0.009	-0.014	-0.014	-0.052	-0.004	-0.028	0.032

Table 2 provides more detailed descriptive statistics on the fund performance by breaking down the sample between SRI and non-SRI funds for the crisis and post crisis period. According to the data, the mean raw returns and the adjusted returns (market adjusted and four-factor adjusted) are negative for the crisis period and positive for the post-crisis period. The difference in mean return during the crisis and post-crisis is large and statistically significant.

These results confirm that, on average, funds performed poorly during the crisis and then improved their performance during the post-crisis period. The questions is whether there exists a difference in performance between SRIs and conventional funds (non-SRI). Based on the raw and adjusted returns, SRIs perform worse than non-SRIs during the crisis while exhibiting better performance than non-SRIs during the post-crisis period. During the crisis, SRIs report a mean raw return and adjusted return around -4.5%, while non-SRIs report a mean return around -3.2%. However, SRIs generate a mean returns of about 1.8% during the post-crisis period when non-SRIs generate a mean return of about 1.2%. The difference in means for the crisis and post-crisis period are statistically significant.

Table. 2: Fund performance during and after the crisis

This table summarizes raw returns and risk-adjusted returns from the period 2007 to 2013. Panel A provides results for raw returns; Panel B for market adjusted returns; and Panel C for four-factor adjusted returns. Market adjusted abnormal return is calculated using market model parameters and Four-factor adjusted abnormal return is calculated using Fama-French and Cahart model parameters. The factors are updated monthly, and factor loadings are re-estimated each month based on the data in the previous 36 months. Among each panel, the returns are further broken down by crisis and post-crisis period, and by SRIs and non-SRIs during the period. T-statistics and significance level for testing if the difference in returns for SRIs and non-SRIs is zero are shown. T statistics and significance level for testing the difference in returns for crisis period and post-crisis period are also shown. All the variables are winsorized at the 1st and 99th percentiles.

Panel A: Raw return (%)	**Mean**	**Std. Dev.**	**T-stat**	**Sig. level**
During the crisis				
SRI	-4.65%	7.87%		
Non-SRI	-3.36%	7.10%	-2.63	***
Post-crisis				
SRI	1.74%	4.48%		
Non-SRI	1.12%	4.03%	6.13	***
Diff of (Crisis-Post-crisis)			-458.32	***

Table. 2: Fund performance during and after the crisis (Cont'd)

Panel B: Market adjusted abn. Return (%)	Mean	Std. Dev.	T-stat	Sig. level
During the crisis				
SRI	-4.56%	7.29%		
Non-SRI	-3.12%	6.59%	-3.16	***
Post-crisis				
SRI	1.86%	4.39%		
Non-SRI	1.27%	3.71%	6.33	***
Diff of (Crisis-Post-crisis)			-458.55	***

Panel C: Four factor adjusted abn. Return (%)	Mean	Std. Dev.	T-stat	Sig. level
During the crisis				
SRI	-4.59%	7.46%		
Non-SRI	-3.00%	6.50%	-3.53	***
Post-crisis				
SRI	1.83%	4.46%		
Non-SRI	1.22%	3.84%	6.39	***
Diff of (Crisis-Post-crisis)			-430.47	***

4. Empirical results

In this section, we are going to formally test our hypotheses. First, we use both a panel regression and simple OLS regression to study SRIs performance during the crisis period. We test for monthly returns as well as buy-and-hold returns. Second, we adopt a difference-in-differences setting to examine SRIs performance during both crisis and post crisis period. We create a matching non-SRIs sample for the SRI funds and re-perform the analysis to try our best to capture any omitted variables that might drive

fund performance. Third, we study fund flow volatility and flow performance sensitivity to identify SRI and their clienteles' distinctive attributes. Last, we look at investor horizon and selling strategy of SRIs, which provide plausible explanations for their poor performance during the crisis.

4.1. Baseline results

This section aims at testing the hypothesis that SRIs perform better during the crisis than conventional funds in a multivariate framework. The first step is to conduct a panel regression during the crisis period (August 2008 to March 2009) in order to estimate the following model:

$$Return_{i,t} = \beta_0 + \beta_1 * SRI_{i,t} + \beta_2 * X_{i,t} + \beta_3 * Factor\_loadings_{i,t} + Time\ Dummies + \varepsilon_{it},$$

The dependent variable is either the raw return, the market adjusted abnormal return, or the four-factor adjusted abnormal return. The main independent variable *SRI* is a dummy variable, which equals one if the fund is a SRI fund, and zero otherwise. Variable *X* is a vector of independent variables which captures fund characteristics such as fund size, fund age, fund fee, front load, back load. Papers in the literature suggests that fund size, age and expense structures could affect their performance. (e.g. Bauer et al. 2005). We also include factor loadings in the regressions as well as time fixed effects. The standard errors are clustered by fund. The results are shown in Table 3(a).

Table. 3(a): Crisis period fund performance

This table reports crisis period fund performance by SRIs and non-SRIs of a panel regression. We estimate the model as follows:

$$Return_{i,t} = \beta_0 + \beta_1 * SRI_{i,t} + \beta_2 * X_{i,t} + \beta_3 * Factor\_loadings_{i,t} + Time\ Dummies + \varepsilon_{it},$$

In column (1), the dependent variable is raw return, in column (2) market adjusted abnormal return, and in column (3) four-factor adjusted abnormal return, respectively. The main independent variable is a dummy variable, which equals one if the fund is a SRI fund, and zero otherwise. A bunch of fund characteristics, including fund size, fund age, fund fee, front load, and back load are added as controls. We also include factor loadings in the regressions and apply monthly time fixed effects. Standard errors are heteroskedasticity-consistent and clustered by fund. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels. All the variables are winsorized at the 1st and 99th percentiles.

Variables	**(1)** **Raw return**	**(2)** **Market-adjusted abnormal return**	**(3)** **Four-factor adjusted abnormal return**
SRI	-0.007***	-0.0032***	-0.005***
	(-6.54)	(-6.64)	(-6.45)
Fund Size	0.000***	0.000**	0.000**
	(5.67)	(2.11)	(-2.32)
Fund age	0.000***	0.000***	0.000***
	(13.64)	(14.08)	(8.76)
Fund fee	-0.009***	-0.007***	-0.004***
	(-23.91)	(-25.58)	(-10.84)
Front load	-0.061***	-0.032***	-0.038***
	(-4.59)	(-5.18)	(-4.32)
Back load	-0.051***	-0.008	-0.027**
	(-3.13)	(-1.02)	(-2.41)
Lagged raw return	0.032***		
	(8.12)		
Constant	-0.052***	0.0361***	0.0345***
	(-92.63)	(133.89)	(85.97)
Four-factor loadings	Yes	Yes	Yes
Time (monthly) fixed effects	Yes	Yes	Yes
Standard error clustered by	Fund	Fund	Fund
Observations	170,723	193,841	193,841
R-squared	0.655	0.718	0.668

The first striking result is that the coefficient of SRI is always negative and significant for all three measures of return with the magnitude varying between -0.3% and -0.7%. Thus, during the crisis period, SRI funds report a mean return that was 0.3% to 0.7% less than conventional

funds.[22] The mean return/abnormal return for SRIs during the crisis period is around -4.5%, and 0.3% to 0.7% represents 6% to 25% over the mean return of SRIs. [23]

In a second step, we run an OLS regression during the crisis period to estimate the following model:

$$Buy\text{-}and\text{-}hold\ return_i = \beta_0 + \beta_1 * SRI_i + \beta_2 * X_i + \beta_3 * Factor\_loadings_i + \varepsilon_i,$$

where the dependent variable is the either buy-and-hold raw returns and adjusted returns for each fund during the crisis period. The independent variables are the same as for the previous regression with the exception of the time fixed effects which are excluded. Standard errors are clustered by funds. Results are reported in Table 3(b).

[22] To consider very skewed outliers during the crisis period, we also test for winsorization at the 5%/95% and 10%/90% level and the results still hold.
[23] We also create a size-matched sample for SRIs and non-SRIs only during the crisis, the coefficient of SRI is negative and significant for raw returns and four-factor adjusted abnormal returns.

Table 3(b): Crisis period fund performance: buy-and-hold returns

This table reports crisis period fund performance by SRIs and non-SRIs of an OLS regression. We estimate the model as follows:

$$Buy\text{-}and\text{-}hold\ return_i = \beta_0 + \beta_1 * SRI_i + \beta 2 * X_i + \beta_3 * Factor\_loadings_{\ i} + \varepsilon_{it},$$

The dependent variable is the buy-and-hold return, calculated over the crisis period August 2008 to March 2009. In column (1), the dependent variable is raw buy-and-hold return, in column (2) market adjusted buy-and-hold abnormal return, and in column (3) four-factor adjusted buy-and-hold abnormal return, respectively. The main independent variable is a dummy variable, which equals one if the fund is a SRI fund, and zero otherwise. A bunch of fund characteristics, including fund size, fund age, fund fee, front load, and back load are added as controls. We also include factor loadings in the regressions. Standard errors are heteroskedasticity-consistent and clustered by fund. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels. All the variables are winsorized at the 1st and 99th percentiles.

Variables	(1) Raw return	(2) Market-adjusted abnormal return	(3) Four-factor adjusted abnormal return
SRI	-0.049***	-0.033***	-0.025***
	(-6.60)	(-4.72)	(-4.40)
Fund Size	0.000***	-0.000	0.000***
	(4.14)	(-0.07)	(5.04)
Fund age	0.003***	-0.008***	-0.007***
	(15.06)	(-32.35)	(-31.78)
Fund fee	-0.094***	-0.079***	-0.080***
	(-35.60)	(-27.51)	(-27.05)
Front load	-0.323***	-0.234***	-0.209***
	(-3.32)	(-2.89)	(-2.61)
Back load	-0.181	-0.394***	-0.417***
	(-1.50)	(-3.81)	(-3.93)
Constant	-0.0574***	-0.375***	-0.401***
	(-17.00)	(-116.32)	(-124.75)
Four-factor loadings	Yes	Yes	Yes
Standard error clustered by	Fund	Fund	Fund
Observations	26,945	26,945	26,945
R-squared	0.568	0.170	0.162

Once again, the coefficients for the SRI dummy are negative and significant for all the three return specifications. This implies that SRI funds earn a lower buy-and-hold return, either measured by raw return, or market adjusted or four-factor adjusted return, than non-SRI funds. The coefficients are significant at the 1% level. Based on the raw return, SRIs earn, on average, 5% less buy-and-hold raw returns than non-SRIs. Given that the mean buy-and-hold raw return of SRIs during the crisis period is about -33%, and 5% is about 15% over the mean. The mean

buy-and-hold market adjusted return and four-factor adjusted return of SRIs are around -50%, and SRIs on average earn 3% less than conventional funds, which is around 6% over the mean. [24]

Based on the above multivariate analysis, we can reject our first hypothesis in the relative performance of SRIs. Indeed, SRIs seem to perform worse than conventional funds during the crisis period and for all three measures of return. Despite the fact that, on average, SRIs hold portfolios with firms associated with better CSR profile, and high CSR scored firms earn better returns during the crisis (Lins et al., 2017), SRIs still perform worse than conventional funds during the crisis period.

4.2. Comparing returns during the crisis and post-crisis

Now that we have shown that SRIs perform worse than non-SRIs during the crisis, the next step is to examine how their performance compare during normal times. If SRIs consistently exhibit bad performance, one could argue that the investors decision to keep their investment in SRIs is essentially driven by non-financial criteria. However, if SRIs perform better in normal times, this could be explained by the fact that SRIs investors have different investor horizons or strategies to investors of conventional funds. To formally test this, we estimate a difference-in-differences model and run a panel regression as follows:

$$Return_{i,t} = \beta_0 + \beta_1 * SRI_{i,t} * Crisis + \beta_2 * SRI_{i,t} * Post\text{-}crisis + \beta_3 * X_{i,t}$$

$$+ \beta_4 * Factor\_loadings_{i,t} + Time\ Dummies + Fund\ Fixed\ Effects + \varepsilon_{it},$$

[24] We also test for the size-matched sample, the coefficient of SRI is always negative and significant for raw and risk-adjusted buy-and-hold abnormal returns.

Table. 4(a): Fund performance during the crisis and post-crisis periods

This table reports fund performance during the crisis and post-crisis period. We estimate a difference-in-differences model and run a panel regression as follows:

$$Return_{i,t} = \beta_0 + \beta_1 * SRI_{i,t} * Crisis + \beta_2 * SRI_{i,t} * Post\text{-}crisis + \beta_3 * X_{i,t}$$
$$+ \beta_4 * Factor\_loadings_{i,t} + Time\ Dummies + Fund\ Fixed\ Effects + \varepsilon_{it},$$

In column (1), the dependent variable is raw return, in column (2) market adjusted abnormal return, and in column (3) four-factor adjusted abnormal return, respectively. The main independent variables of interest are the interaction terms SRI*Crisis and SRI*Post-Crisis, where SRI is a dummy variable, which equals one if the fund is a SRI fund, and zero otherwise; Crisis and Post-crisis are time dummy variables, where crisis equals one if the time falls in crisis period and zero otherwise, and post-crisis equals the time falls after the crisis period. A bunch of fund characteristics, including fund size, fund age, fund fee, front load, and back load are added as controls. We also include factor loadings in the regressions and apply monthly time fixed effects and fund fixed effects. Standard errors are heteroskedasticity-consistent and clustered by fund. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels. All the variables are winsorized at the 1st and 99th percentiles.

Variables	**(1)** **Raw return**	**(2)** **Market-adjusted abnormal return**	**(3)** **Four-factor adjusted abnormal return**
SRI * Crisis	-0.015***	-0.014***	-0.015***
	(-15.59)	(-16.87)	(-12.36)
SRI * Post-crisis	0.007***	0.005***	0.006***
	(6.48)	(9.04)	(5.81)
Fund Size	0.000***	0.000***	0.000***
	(15.15)	(12.08)	(11.30)
Fund age	0.000	0.000***	0.000***
	(0.12)	(7.32)	((7.69)
Fund fee	-0.002***	-0.002***	-0.003***
	(-8.19)	(-9.30)	(-12.01)
Front load	0.0179	-0.004	0.0453**
	(1.02)	(-0.25)	(2.52)
Back load	0.00620	-0.119***	-0.138***
	(0.30)	(-6.57)	(-6.84)
Lagged return	0.098***		
	(93.34)		
Constant	0.011***	0.010***	0.006***
	(23.39)	(24.64)	(11.83)
Four-factor loadings	Yes	Yes	Yes
Time (monthly) fixed effects	Yes	Yes	Yes
Fund fixed effects	Yes	Yes	Yes
Standard error clustered by	Fund	Fund	Fund
Observations	1,950,369	1,981,945	1,981,945
R-squared	0.584	0.678	0.608

The dependent variable is the same as before, that is the raw return or risk-adjusted return. The main independent variables are the interaction terms between the dummy variable "SRI", and two time dummies, *Crisis* or *Post-crisis*. The first dummy "Crisis" is equal to one if the observation falls into the crisis period (August 2008 to March 2009). The second dummy *Post-crisis* is equal to one if the observation falls into the post-crisis period (April 2009 to 2013). The coefficients of the interaction terms show how much better or worse SRI funds perform during that period compared to conventional funds. As usual, we control for a series of fund characteristics. We also control for four factor loadings, which are re-estimated based on the data of the previous 36 months and we apply time fixed effects (monthly) and fund fixed effects. All standard errors are clustered at the fund level.

As reported in Table 4(a), the coefficient of the interaction term SRI*Crisis is negative and significant at the 1% level for all three specifications. At the same time, the coefficient of the interaction term SRI*Post-crisis is positive and significant at the 1% level for all three specifications. These results suggest during that the crisis, the return of SRI funds was, on average, 1.5% less than the return on conventional funds. The inverse is true for the post crisis period where the return of SRI funds was, on average, 0.5 to 0.7% higher than the return of conventional funds. These results confirm those reported results in Tables 3(a)(b) which show that SRIs performed worse during the crisis. In additional robustness tests, we consider the potential contemporaries' relationship between the variables by adjusting the model to include lagged fund characteristics and lagged factor loadings. Results are unaffected.

4.2.1. Matching

Previous regression analysis controlled for fund characteristics. Yet, funds with very distinct characteristics may also have very different investment strategies, capital constraints and investor sentiments. Thus, controlling only for fund characteristics may not be sufficient to capture these additional elements. To control for this, we re-run the above tests using a matched sample whereby each SRI fund is matched with a non-SRI fund which is the closest on a fund size basis.[25] The results are reported in Table 4(b).

Consistent with previous results reported in Table 4(a), the coefficient of *SRI*Crisis* is negative and significant at the 1% level. This implies that an SRI offers, on average, around 2% lower return than a matched non-SRI. Interestingly, the coefficient *of SRI*Post-crisis* is no longer significant when using a matched sample which means that there is no statistically significant difference in returns for SRIs and size-matched non-SRIs after the crisis period. Robustness tests also include lagged controls without affecting the results. Although the empirical analysis cannot conclude that SRIs earn greater returns during the post-crisis period, it suggests that the poor return of SRIs during the crisis period do not persist in the long run.

[25] Fund size has been used in previous literature for matching purposes See Statman (2000).

Table 4(b): Fund performance during the crisis and post-crisis periods

This table reports fund performance during the crisis and post-crisis period on a size matched sample. We estimate a difference-in-differences model and run a panel regression as follows:

$$Return_{i,t} = \beta_0 + \beta_1 * SRI_{i,t} * Crisis + \beta_2 * SRI_{i,t} * Post\text{-}crisis + \beta_3 * X_{i,t}$$
$$+ \beta_4 * Factor\_loadings_{i,t} + Time\ Dummies + Fund\ Fixed\ Effects + \varepsilon_{it},$$

In column (1), the dependent variable is raw return, in column (2) market adjusted abnormal return, and in column (3) four-factor adjusted abnormal return, respectively. The main independent variables of interest are the interaction terms SRI*Crisis and SRI*Post-Crisis, where SRI is a dummy variable, which equals one if the fund is a SRI fund, and zero otherwise; Crisis and Post-crisis are time dummy variables, where crisis equals one if the time falls in crisis period and zero otherwise, and post-crisis equals the time falls after the crisis period. A bunch of fund characteristics, including fund age, fund fee, front load, and back load are added as controls. We also include factor loadings in the regressions and apply monthly time fixed effects and fund fixed effects. Standard errors are heteroskedasticity-consistent and clustered by fund. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels. All the variables are winsorized at the 1st and 99th percentiles.

Variables	(1) **Raw return**	(2) **Market-adjusted abnormal return**	(3) **Four-factor adjusted abnormal return**
SRI * Crisis	-0.024***	-0.018***	-0.020***
	(-4.08)	(-3.37)	(-3.40)
SRI * Post-crisis	0.001	0.004	0.004
	(0.22)	(1.34)	(1.13)
Fund age	0.003	0.001	-0.001
	(1.16)	(0.42)	(-0.32)
Fund fee	0.003	0.000	0.004
	(1.02)	(0.03)	(1.02)
Front load	0.561	0.192	-0.345
	(1.23)	(0.35)	(-0.98)
Back load	0.328	-0.255	-0.096
	(0.89)	(-0.67)	(-0.24)
Lagged return	0.118***		
	(93.34)		
Constant	-0.021	0.006	0.026
	(-0.88)	(0.21)	(1.36)
Four-factor loadings	Yes	Yes	Yes
Time (monthly) fixed effects	Yes	Yes	Yes
Fund fixed effects	Yes	Yes	Yes
Standard error clustered by	Fund	Fund	Fund
Observations	3,260	3,310	3,310
R-squared	0.805	0.873	0.838

4.3. Fund flow

Fund flow is an important aspect in mutual fund studies. Previous literatures have shown that SRI funds seem to have distinct fund flow features than conventional funds.[26] Compared to investors of conventional funds, SRIs investors may have nonfinancial interests which makes it such that their investment flows are less affected by past negative fund. This section examines this issue and test whether SRIs experience less volatile flows than conventional funds during the crisis period.

We adopt the same matching procedure as above. We measure fund flow following the literature as given by[27], where TNA is total net assets in millions:

$$Flow_{i,t} = [TNA_{i,t} - TNA_{i,t-1} * (1 + Return_{i,t})] / TNA_{i,t-1,}$$

We calculate the volatility of fund flow by taking the standard deviation of the monthly fund flows over the eight-month crisis period going from August 2008 to March 2009. We also want to examine whether the features of fund flow volatility persist into the post-crisis period. This is done by calculating the standard deviation of the monthly fund flows for each year of the post-crisis period (year 2010 to 2013). We then test whether the fund flow volatility of SRIs differs from the one of non-SRIs, both during the crisis and post-crisis. The results are shown in Table 5.

[26] For example, Bollen (2007), Bialkowski and Starks (2016)

[27] See Ferreira et al. (2013)

Table. 5: Fund flow volatility

This table reports fund flow volatility tests during the crisis and post-crisis period by SRIs and non-SRIs on a size matched sample. We first match our SRI funds, on a one-on-one basis to a non-SRI fund closest in fund size that year, which comprises our matched sample. Fund volatility is calculated as the eight-month standard deviation of monthly flow for the period during the crisis, and is calculated each year as the standard deviation of monthly flow from the years 2010 to 2013 for the post-crisis period. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels. All the variables are winsorized at the 1st and 99th percentiles.

Fund flow volatility	**During the crisis**		**Post-crisis**	
	SRI funds	**Non-SRIs**	**SRI funds**	**Non-SRIs**
25th Percentile	0.015	0.017	0.009	0.010
Median	0.035	0.069	0.024	0.032
75th Percentile	0.054	0.138	0.058	0.107
Mean	0.045	0.111	0.075	0.081
T-statistics		(-2.15)***		(-0.23)

Results show that during the crisis period, SRIs have less volatile fund flows than non-SRIs. The t-test for the mean of fund flow volatility is negative and statistically significant at the 1% level.[28] This shows that even if SRIs earn worse returns than non-SRIs during the crisis period, the investment flows of SRI investors did not fluctuate as much as those of non-SRI investors. This brings support to the argument that SRI investors also rely on non-financial considerations when doing their investment decision.

Table 5 also shows that the difference in fund flow volatility between SRIs and non-SRIs is not persistent. Indeed, there is no statistical difference in in fund flow volatility in the post-crisis period between the two types of funds. This is consistent with prior literature (for example, Bialkowski and Starks 2016), showing that as SRI funds grow rapidly, the difference in fund flow volatility have disappeared in recent years.

[28] The test for unmatched sample, however, shows no statistical significant difference.

4.3.1. Fund flow and performance

In this section, we test the fund flow and performance relationship of SRIs and non-SRIs in our sample period 2007 to 2013. We adopt the methodology of piecewise linear regression proposed by Sirri and Tufano (1998) and used in mutual fund literature very often recently (e.g. Ferreira et al. 2013). Rank variable ranks fund performance in the last quarter, ranging from zero to one. We follow to literature to apply the cut-offs 20/60/20 in the rank, and define three variables as follows:

$Low_{i,t}=min(0.2, Rank_{i,t})$

$Mid_{i,t}=min(0.6, Rank_{i,t} - Low_{i,t})$

$High_{i,t}= Rank_{i,t} - Low_{i,t} - Mid_{i,t}$

Then we estimate the model as follows:

$$Flow_{i,t} = \beta_0 + \beta_1 * Low_{i,t-1} + \beta_2 * Mid_{i,t-1} + \beta_3 * High_{i,t-1} + \beta_4 * SRI_{i,t-1} + \beta_5 * Flow_{i,t-1} + \beta_6 * X_{i,t-1} + Time\ Dummies + \varepsilon_{it},$$

We regress quarterly flow variable on its lagged rank variables (low, mid and high) and a *SRI* dummy variable. Then we control for past flows (*Flow*) and a number of lagged fund characteristics (*X*). Fund size, fund age and fund fee structures are suggested to have influence on the fund flows in the literature. (e.g. Ferreira et al. 2012). Large funds are expected to capture more money, and fund age and fees also explain fund flows. We include quarterly time fixed effects in the regressions as well. The results are reported in Table 6.

Table. 6: Fund flow and performance relationship

This table reports fund flow and performance relationship during the years 2007 to 2013. We estimate a piecewise linear regression model as follows:

$$Flow_{i,t} = \beta_0 + \beta_1 * Low_{i,t-1} + \beta_2 * Mid_{i,t-1} + \beta_3 * High_{i,t-1}$$

$$+ \beta_4 * SRI_{i,t-1} + \beta_5 * Flow_{i,t-1} + \beta_6 * X_{i,t-1} + Time\ Dummies + \varepsilon_{it},$$

where Low, Mid and High are defined as follows:

$$Low_{i,t} = min(0.2, Rank_{i,t})$$

$$Mid_{i,t} = min(0.6, Rank_{i,t} - Low_{i,t})$$

$$High_{i,t} = Rank_{i,t} - Low_{i,t} - Mid_{i,t}$$

The dependent variable quarterly fund flow of fund i at time t. The ranks are calculated based on lagged fund return ((1) raw return, (2) market-adjusted return, (3) four-factor adjusted return respectively). The main independent variables of interest are the rank variables: low, mid high; and the indicate variable SRI, which equals one if the fund is a SRI fund and zero otherwise. A bunch of fund characteristics, including volatility, measured by the standard deviation of monthly returns over the previous 12 months, log of fund size and fund age, fund fee, front load, and back load, all lagged one year are added as controls. We also include lagged flow and lagged factor loadings in the regressions and apply monthly time fixed effects. Standard errors are heteroskedasticity-consistent and clustered by fund. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels. All the variables are winsorized at the 1st and 99th percentiles.

Variables	(1) **Raw return**	(2) **Market-adjusted abnorma return**	(3) **Four-factor adjusted abnormal return**
Low	0.115***	0.061***	0.072***
	(9.33)	(5.04)	(6.02)
Medium	0.042***	0.049***	0.036***
	(16.43)	(19.92)	(14.46)
High	0.180***	0.176***	0.186***
	(14.98)	(14.61)	(14.93)
SRI	0.032***	0.034***	0.033***
	(3.54)	(3.79)	(3.66)
Volatility	-0.105**	-0.218***	-0.257***
	(-2.46)	(-5.12)	(-5.96)
Lagged flow	0.089***	0.089***	0.090***
	(23.89)	(23.93)	(24.15)
Fund size	-0.001***	-0.001***	-0.001***
	(-3.11)	(-3.23)	(-2.91)
Fund age	-0.099***	-0.099**	-0.098***
	(-70.86)	(-70.67)	(-70.39)
Fund fee	0.020***	0.018***	0.018***
	(8.79)	(8.17)	(8.16)
Front load	0.140*	0.151*	0.145*
	(1.76)	(1.89)	(1.82)
Back load	-3.766***	-3.768***	-3.772***
	(-32.22)	(-32.19)	(-32.25)
Constant	0.206***	0.204***	0.207***
	(43.62)	(42.61)	(42.77)
Lagged four-factor loadings	Yes	Yes	Yes
Time (quarterly) fixed effects	Yes	Yes	Yes
Standard error clustered by	Fund	Fund	Fund
Observations	542,075	542,075	542,075
R-squared	0.062	0.062	0.061

The regression results show that the *Low, Medium* and *High* rank variables are positive and statistically significant at the 1% level for the raw return and the four-factor adjusted abnormal return. These results indicate that the relationship between fund flows and past returns is positive. Column (1) reports a coefficient of 0.18 for the *High* raw return variable and 0.12 for the *Low* raw return. This suggests that the flow performance sensitivity of the top-performing quantile is 50% higher than the worst-performing quantile. The difference is much greater for the adjusted return test in columns (2) and (3), while the coefficients of *High* are 0.18 and 0.19, those of *Low* are only 0.06 and 0.07, reflecting the sensitivity of the top-performing quantile is 170% to 200% higher than the worst-performing quantile. Volatility has a negative coefficient of around -0.1 to -0.2, which suggests that high volatility of returns reduces future flows. The coefficient of lagged flow is positive, which confirms that there is autocorrelation in the fund flows. These results are in line with extant literature.

In addition, the results also show that the coefficient of SRI is always positive and significant. This implies that SRI funds attract more fund flows than non-SRIs after controlling all other factors that affects fund flows. The magnitude 0.03 is in comparable order to the level of rank variables and constant across the different measures of return. This supports the view that the investor clientele of SRIs may be different than those of non-SRIs and that their investment flows are influenced not only by past returns but also by other non-financial attributes.

In terms of the coefficients of the control variables, fund size and fund age negatively affect the flows. Volatility is also negatively associated with fund flow, suggesting that more volatile returns reduces fund flow. These results are consistent with the literature. (e.g. Bialkowski and Starks 2016, Ferreira et al. 2012)

4.4. Investor horizon and SRI portfolio

We have shown that SRIs earn worse returns than conventional funds during the crisis, despite that they own firms with high CSR scores in their portfolio and there is evidence showing high CSR firms outperform during the same period. So why would investors still want to invest in SRIs? In the previous section, we examine fund flows and flow performance sensitivity. It seems that the investor clientele of SRIs are different from that of non-SRIs. SRI investors do not adjust their fund investment as often as non-SRI investors, which results in less volatile flows of SRIs. Moreover, SRIs attract more fund flows than conventional funds after controlling for other factors that affect flows. In this section, we would further analyze SRI funds' portfolio holdings to understand their clientele and strategy better. Specifically, we focus on investor horizon and funds' selling strategy.

Starks et al. (2017) show that investors with longer investment horizon tend to prefer high CSR firms, and they sell less after poor stock returns. These investors could be the same group of investors who prefer to invest in SRIs for non-financial considerations. We compute the investor horizon and selling of portfolio firms during the crisis for SRIs and a size-matched sample for non-SRIs. We report the results in Table 7.

Table. 7: Investor horizon and crisis sale

This table reports ttest results for investor horizon (Panel A) and crisis sale (Panel B) for SRIs and size-matched non-SRIs. Among each panel, the variables of interest, namely investor horizon and crisis sale are further broken down by SRIs and non-SRIs. Investor horizon is computed as the holding period of each portfolio firm of the fund, from its first acquire, to total disposal, measured in months. Selling during the crisis is an indicator variable, which equals one if total disposal of the portfolio firm happened during the crisis period (August 2008 to March 2009), and zero otherwise. T-statistics and significance level for testing if the difference in the variables of interest for SRIs and non-SRIs is zero are shown. Variable investor horizon is winsorized at the 1st and 99th percentiles.

Panel A: Investor horizon (months)	**Mean**	**Std. Dev.**	**T-stat**	**Sig. level**	**Obs**
SRI	32.0	29.3			8,940
Non-SRI	29.0	28.4			8,347
Diff of SRI and non-SRI			6.67	***	

Panel B: Selling during the crisis (%)	**Mean**	**Std. Dev.**	**T-stat**	**Sig. level**	**Obs**
SRI	7.07%	25.63%			8,940
Non-SRI	11.05%	31.35%			8,347
Diff of SRI and non-SRI			-9.16	***	

Panel A in Table 7 shows investor horizon results. Investor horizon is computed as the holding period of each portfolio firm of the fund, from its first acquire, to total disposal, measured in months. During the sample period from 2007 to 2013, the average investor horizon for SRIs is around 32 months, and the horizon for non-SRIs is 29 months, and the difference in time horizon is statistically significant.

Panel B in Table 7 reports crisis sale results. Selling during the crisis is an indicator variable, which equals one if total disposal of the portfolio firm happened during the crisis period (August 2008 to March 2009), and zero otherwise. We find that SRIs sold around 7% of their portfolios firms, while non-SRIs sold around 11%, and the difference between the two is statistically significant.

To understand what affects funds' selling decisions, we use selling decision as the dependent variable and regress on a set of explanatory variables. We estimate the following model:

$$Dummy\_sell_{i,j,t} = \beta_{0\,i,j,t} + \beta_1 * Excess\ return^{-}_{j,t} + \beta_2 * SRI_{i,t} + \beta_3 * X_{j,t} + \varepsilon_{i,j,t},$$

where the dependent variable is dummy variable of fund i, holds firm j, at quarter t, which equals one if the fund has sold shares of the portfolio firm during the quarter, and zero otherwise. Excess return^{-} is the past 12-months negative stock return (either measured by raw return or adjusted abnormal return). We only count negative returns, as selling decisions are usually linked with negative returns, we compute excess return^{-} applying the function min(return, 0). SRI is the indicator variable which equals one if the fund is SRI fund, and zero otherwise. We are interested to see whether SRI funds are more patient towards the negative return of their portfolio firm. If so, the coefficient β_2 of SRI would be negative. Variable X is a vector of firm characteristics we use as controls, including market-to-book ratio, log of market capitalization, dividend yield, asset turnover, ROA, R&D and leverage, that may also affect the selling decision. The results are reported in Table 8.

Table. 8: Fund trading and past returns

This table reports panel regression results for fund trading for SRIs and size-matched non-SRIs. We estimate the following model:

$$Dummy\_sell_{i,j,t} = \beta_{0\,i,j,t} + \beta_1 * Excess\ return^{-}_{j,t} + \beta_2 * SRI_{i,t} + \beta_3 * X_{j,t} + \varepsilon_{i,j,t},$$

The dependent variable is a dummy for fund selling of fund i, holds firm j, at quarter t, which equals 1 if the fund sells shares of the portfolio firm in that quarter, and zero otherwise. Excess return^{-} is defined as the min of negative returns and zero, and the negative returns are measured by (1) raw return, (2) market-adjusted return, (3) four-factor adjusted return of the past 12 months of the portfolio firm. SRI is the indicator variable, which equals one if the fund is a SRI fund and zero otherwise. X is a vector of firm characteristics including market-to-book ratio, log of market capitalization, dividend yield, asset turnover, ROA, R&D and leverage. We also include quarterly time fixed effects. Standard errors are heteroskedasticity-consistent and clustered by firm. T-Statistics are in parentheses. ***, ** and * represent significance at the 1%, 5% and 10% levels. All the variables except for the dummy variables are winsorized at the 1st and 99th percentiles.

Variables	**Dummy sale**		
	(1)	(2)	(3)
Excess return^{-}	-0.0611***	-0.0719***	-0.0450***
	(-4.72)	(-5.09)	(-3.04)
SRI	-0.161***	-0.160***	-0.160***
	(-31.39)	(-31.31)	(-31.18)
Return volatility	0.00941	0.00988	0.00918
	(0.312)	(0.33)	(0.31)
Market to book	-0.000672	-0.000645	-0.000523
	(-1.14)	(-1.10)	(-0.90)
Log of market capitalization	0.0231***	0.0233***	0.0233***
	(16.66)	(16.89)	(16.92)
Dividend yield	-0.223*	-0.224*	-0.258**
	(-1.84)	(-1.84)	(-2.13)
Asset turnover	0.00702*	0.00714*	0.00711*
	(1.84)	(1.88)	(1.85)
ROA	0.0822***	0.0796***	0.0837***
	(4.23)	(4.10)	(4.34)
R&D	-0.0624**	-0.0690***	-0.0651**
	(-2.35)	(-2.60)	(-2.45)
Leverage	0.0214*	0.0234**	0.0213*
	(1.88)	(2.05)	(1.88)
Constant	0.220***	0.226***	0.225***
	(11.07)	(11.37)	(11.37)
Time (quarterly) fixed effects	Yes	Yes	Yes
Standard error clustered by	Firm	Firm	Firm
Observations	42,391	42,391	42,391
R-squared	0.103	0.104	0.103

The coefficients of the excess return^{-} is negative, which means that an increase in the magnitude of the negative return increases the probability of the fund selling the firm. A 10% increase in the negative return would increase the probability by 0.5% to 0.7%. We are interested

in the coefficient of SRI, as to test whether there is difference between SRI funds and non-SRI funds on the fund's selling decision. The coefficient is negative and significant, meaning that being SRIs reduces the probability of selling their portfolio firms by 0.16%. The results further confirm that SRI funds are more patient and less likely to sell their portfolios based on negative past returns controlling other factors that affect the sale.

The evidence in this section suggests that SRIs hold their portfolios for longer time than non-SRIs, and they sell less during the crisis period for poor returns. They also sell less on average than non-SRIs, due to negative past returns, both during crisis and post-crisis periods. It is probably because SRIs are more long-term oriented; they do not change their positions much due to short-term variations of returns. The investor clientele of SRIs are probably also long-term investors who care about non-financial CSR considerations, which may explain why they do not pull out their investment due to worse returns of SRIs during the crisis. Social funds investors could learn from the crisis analysis in this chapter, especially, they could be more patient when the return is bad. This helps to ease the short-term selling pressure of the fund and tends to pay off over medium to long-term.

5. Conclusion

This chapter investigates SRIs fund performance, especially during the financial crisis period. We have shown that SRIs perform worse during the crisis period, but that poor performance does not persist into the post-crisis period. SRIs have longer investor horizon, and do not sell their portfolio as much due to negative past returns than conventional funds. The investors of SRI funds seem to be more patient and long-term oriented. As a result, SRI funds attract more flows

and their flows are less volatile than conventional funds. The evidence suggests that SRIs' investment strategies are aligned with the orientation of their clientele.

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Appendix I: Variable Definitions

Variable name	Definition
SRI	A dummy variable which equals one if the fund is an SRI fund, zero otherwise
Crisis	A dummy variable which equals one if the time period is within crisis period, i.e. from August 2008 to March 2009, zero otherwise
Fund return	Monthly return of the fund, risk-adjusted returns are adjusted using market model or four-factor model
Buy-and-hold return	Buy-and-hold return over the crisis period
Fund size	Size of the fund (in $million), log(size) takes the log of fund size
Fund age	Relative of age, counting from the start of the dataset, i.e. 2001, to the first year that the fund is included in the data, varies from 1 to 13.
Fund fee	Management fee charged by the fund in %.
Front load	Commission or charges when purchasing the fund, in %
Back load	Commission or charges when selling the fund, in %
Fund flow volatility	The volatility of flows of the funds during the crisis
Flow rank	Rank based on quarterly fund returns, from 0 to 1, low is defined by taking min. of (0.2, rank), mid is defined by taking min. of (0.6, rank-low), high is defined by taking rank-low-mid.
Excess return -	Min of negative past 12-months return and zero
Market capitalization	Market value of equity (in billion $)
Market-to-book	Market value of equity / Book value of equity
Return on assets	Earnings before interest, taxes, depreciation and amortization (EBITDA) Average total assets
Asset turnover	Sales/Average total assets
Stock return volatility	Standard deviation of monthly stock returns during the fiscal year
Leverage	Book value of debt / (Book value of debt + Book value of equity)
Dividend yield	Total dividends / (Market value of common equity + Book value of preferred equity)
R&D expenditure	R&D expenditures / Average total assets