

## Analysis of Private Socially Responsible Investment: The Impact of Personal Concern with Corporate Social Responsibility

Prof. *Francesco Gangi* (Correspondence author)

Department of Economics, Second University of Naples  
Corso Gran Priorato di Malta, Capua (CE), 81043, ITALY  
Tel: +00390823274018 E-mail: francesco.gangi@unina2.it

Dr. *Ida Camminatiello*

Department of Economics, Second University of Naples  
Corso Gran Priorato di Malta, Capua (CE), 81043, ITALY  
E-mail: ida.camminatiello@unina2.it

Dr. *Nicola Varrone*

Department of Economics, Second University of Naples  
Corso Gran Priorato di Malta, Capua (CE), 81043, ITALY  
E-mail: nicola.varrone@unina2.it

**Abstract.** Are many years that academics and professionals dealing with the so-called socially responsible investment (SRI). Yet, still it persists today the need of a better knowledge of personal reasons underlying the investment decision. This is evidenced by inconclusive and contradictory findings of decades of empirical research. So, this paper aims at contributing to fill this gap, by deepening whether the level of personal concerns with corporate social responsibility (CSR) and the personal preferences towards the screening criteria adopted by socially responsible funds (SRFs) affect the decision to choose a socially responsible investment. In order to connect the investment choice with the personal concerns for CSR, this study refers to an experimental survey that proposes different investment scenarios and several five point Likert statements referred to corporate social responsibility. Findings confirm that the traditional risk/return trade-off is not sufficient to explain the decision to invest socially responsibly, going beyond a purely financial return. In fact, the level of personal concerns with CSR and the preference for investment screens related to the safeguard of natural environment and human rights incentive individuals to invest in SRFs.

**Keywords:** Corporate social responsibility; Investment behavior; Socially responsible investment; Decision making; Risk/Return trade-off

**JEL Classifications:** G23; G11; M14

**Abbreviations:**

CSD	Corporate Social Disclosure
CSR	Corporate Social Responsibility
INFIT	Inlier-Sensitive Fit
IRT	Item Response Theory
OUTFIT	Outlier-Sensitive Fit
PCM	Partial Credit Model
SRF	Socially Responsible Fund
SRI	Socially Responsible Investment

## 1. Introduction

Finance theory perceives investors as wealth maximizers. However, traditional models do not adequately account for several non-financial elements, including investors' values, cognitive biases and personal concerns (Shefrin, 2005; Statman, 2004). Alternative approaches propose that investors may be motivated not only by strictly financial expectations but also by ethical and social concerns (Beal et al., 2005; Dembinski et al., 2003; Hofmann et al., 2007). Despite a growing attention on this topic, the understanding of personal motivations of individual socially responsible investor (SRI)<sup>1</sup> is still incomplete. Indeed, even if the literature recognizes corporate social responsibility (CSR) and SRI as related phenomena (Sparkes and Cowton, 2004), not many studies have specifically tested this relation at the level of individual investor (Glac, 2009; Pasewark and Riley, 2010). Moreover, the debate on the impacts of different screening criteria adopted by socially responsible funds (SRF) is still actual. These gaps of knowledge have not only an academic relapse, but practical implications. Indeed, a better understanding of individual reasons underlying a SRI may contribute to mitigate the agency problems between savers and socially responsible funds (Juravle and Lewis, 2008) as well as between investors and managers committed with corporate social responsibility.

Therefore, in order to contribute to fill the gaps mentioned above, this paper deepens the impact of personal concerns with CSR on the individual investment decision. In particular, by following a stakeholder perspective (Carroll, 2000), the personal concern with CSR indicates the individual expectation about a "broaden management's vision of its roles and responsibilities beyond the profit maximization functions to include interests and claims of non-stockholding groups" (Mitchell et al., 1997, p.855).

To test the research hypotheses, data have been collected by administering an experimental survey to a sample of potential investors. Moreover, premise the difficulty for measuring CSR expectations, the empirical analysis adopts "the stakeholder scale" proposed by van der Laan Smith et al. (2010) "that measures the relative importance investors place on corporate social responsibility" (van der Laan Smith et al., 2010, p. 179).

The paper is organized as follows. The next section discusses the theoretical background. The third section develops the research hypotheses, while the fourth part concerns the methodology. Then, the fifth section reports and comments the research findings. Finally, the sixth section states the conclusions of the study.

## 2. Literature Review

The growth of SRI on the financial markets has sparked much debate among scholars and practitioners (Juravle and Lewis, 2008), with a variety of definitions that highlights a lack of a general consensus (Cheah et al., 2011; Sandberg et al., 2009). Cowton (1999), for example, defines socially responsible investors as those who consciously use traditional financial criteria in addition to ethical, social and environmental principles. On a similar line, more recently, Sandberg et al. (2009) identify socially responsible investor in someone who accounts for social, ethical, and environmental factors in the investment process. So, in broad terms, the SRI can be intended as "the philosophy and practice of making strategic investment decisions by integrating financial and non-

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<sup>1</sup> As stated by Berry and Yeoung (2012), the literature adopts a variety of terms for what are labelled ethical investors and ethical investments. In this paper, consistently with Renneboog et al. (2008a), the term SRI is used both referring to the ethical and socially responsible investment. The same for the institutional investors generically called Socially Responsible Funds (SRFs).

financial considerations, including personal values, societal demands, environmental concerns and corporate governance issues” (Cheah et al., 2011, p. 305).

On the basis of mentioned definitions, the theoretical feature is the integration between financial principles with ethical and societal drivers, commonly labeled as "extra-financial" factors (Juravle and Lewis, 2008: 286). However, a still open question pertains the willingness to accept a financial underperformance that is offset by benefits related to personal values of individual investor. Indeed, if from one side, according to Nilsson (2009, p. 9), socially responsible investing does not mean the “wish to give money away”, from the other side, literature continues to debate on the potential sacrifice or ethical penalty connected to SRI (Pasewark and Riley, 2010). This is a critical issue to which previous studies have already paid attention, though mainly from the side of institutional investors as the so called socially responsible funds (SRFs). Following the definition of the Social Investment Forum (SIF, 2003), SRFs are mutual funds that actively incorporate social or ethical consideration in investment decisions, without under-estimating the rigorous financial analysis of the companies in which these funds invest. So, their screening process marks the difference from the conventional funds. This justifies the interest of academics and practitioners on the selection process underlying the composition of portfolios managed by SRFs. Previous studies (Michelson et al., 2004; Renneboog et al. 2008b) identified different categories of investment screens, such as the *social screen* and the *ethical screen*. The former is primarily concerned with social responsible programs that, for example, care about the protection of human rights and the natural environment. The latter, instead, concerns the application of moral and religious principles or the exclusion of controversial sectors such as the tobacco industry or weapons. So, the range of screens applied by institutional investors can be more or less extensive, being focused on social criteria, ethical principles or both. As noted by Barnett and Salomon (2006), these approaches are not indifferent from the side of financial returns, thanks to a curvilinear relationship between the number of criteria applied by SRFs and their performance. However, the research on the financial performance of SRFs in comparison with conventional funds have shown inconclusive answers, ranging from no statistically significant differences (Bauer et al., 2006; Mill, 2006; Renneboog et al., 2008b) to even better performance under certain conditions (Cortez, Silva and Areal, 2009, Gangi and Trotta, 2015).

The mixed results of SRFs and their investment criteria feed the debate on the financial and non-financial personal motivations to engage in SRI. In particular, the heterogeneity of the empirical findings on the industry of socially responsible investments emphasizes how wealth maximization is not the sole driver of investment decision (Beal et al., 2005; Dembinski et al., 2003). That is, the basic question of why some private investors prefer SRIs while others do not, cannot find a complete answer in the strictly financial criteria based on the solution of the traditional risk/return framework.

Literature on ethically and socially responsible individual investors recognizes that a model of human beings, with own personal beliefs and moral preferences, may be more useful than the assumption of humans as perfectly rational in an economic sense (Juravle and Lewis, 2008). However, the ethical awareness of responsible investment received multiple interpretations, since the concern for ethics cannot be homogeneously distributed among potential or real ethical investors. In this sense, Dembinsky et al. (2003) distinguish the *value-based ethics*, when moral factors are the priority, from the *ethics as financial selection criterion*, when the economic motivation is prevalent and related to profits of companies that preserve moral values. The personal reasons of socially responsible investing can be also identified in the SRI as a vehicle for social change (Kreander et al. 2004). At this regard, Beal et al. (2005) recognize the *consumption investors*, who derive utility directly from investing socially responsibly, and the *investment investors*, who gain benefits

indirectly from the sustainable practices carried out by the companies in which they have decided to invest.

Over the years, researchers have tried to empirically confirm the theoretical assumptions on the mix of financial and extra-financial factors that may characterize the SRI. However, findings are not convergent, leaving still open the question. For example, previous studies have shown the existence of “ethical contradictions” (Lewis and Mackenzie, 2000, p. 180) since, ethical investors do not appear prepared to sacrifice all their financial needs in ethical vehicles. At the same time, the literature highlights that SRI differs from conventional one for the belief that companies should be just as responsible to their shareholders as to society (Cheah et al., 2011; McLachlan and Gardner, 2004). In this sense, more recently Berry and Yeung (2012) show that socially responsible investors are not always primarily concerned about profit or able to swap the “need” for ethics with the “want” of better financial performance<sup>2</sup>.

In summary, the mixed results of empirical investigations confirm the personal reasons underlying the choice to practice ethically and socially responsible investing as a matter far from being fully resolved. Moreover, the need for further analyses increases with the pressure stakeholders exert on the social responsibility of corporations in addition to the diffusion of ethical financial instruments offered by institutional investors.

### 3. Research Hypotheses

The background of this study emphasizes the opportunity to expand the range of potential motivations underlying the personal decision to practice ethical and socially responsible investing. In particular, the overcoming of a purely economic rationality seems to be a more realistic and useful conceptual framework for understanding investor behavior. In fact, it is argued the need to consider the SRI not only as a means for transferring financial resource over time by maximizing the risk/return trade-off. Rather, it can be seen a means to promote a social change and a vehicle to convey personal beliefs to CSR. Following this perspective, the paper assumes CSR and SRI as closely interconnected phenomena at an institutional and individual level (Mill, 2006; Sparkes and Cowton, 2004). At the first level, CSR can be assumed as the “corporate behaviors that aims to affect stakeholders positively and that go beyond its economic interest” (Turker, 2008, p. 413). At the second level, instead, it is considered the viewpoint of individuals that select the companies in which to invest directly or through the intermediation of institutional investors. Furthermore, as for managers engaged in the definition of business strategies is relevant the personal belief about the corporate social responsibility, similarly SRI may be considered as a projection of personal decision frames of savers who seek to integrate the satisfaction of psychic benefits within the investment process. According to Beal et al. (2005), it’s possible to assume the investment goal as a “stream of pleasure” for satisfying a holistic utility function that goes beyond the wealth maximization. These psychological motivations for SRI are called “expressive” benefits (Glac, 2009, p. 43) because the act of investing in a socially responsible way is considered an extension of the identity and the social beliefs of the private investor. Thereby, the personal conviction to operate in the right, both for themselves and for society, acquires a symbolic value as well as experiential.

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<sup>2</sup> Berry and Yeung (2012) identify three groups of investors: (1) a committed group, which gains the most benefit from increased ethical investment; (2) an opportunistic group, for which the utility grows as a function of a given ethical performance and the highest financial return; and (3) a materialistic group, for which the increase of utility derived from greater ethical performance is lower than that derived from greater financial performance.

The consideration of SRI as an extension of the investor's identity has analogies with the phenomenon of “ethical consumerism”, understood as the growing influence of ethical or social issues on consumer behaviour (Auger, et al., 2010; Marín, et al., 2015; Singh et al., 2012). According to Williams (2005), investors who are concerned about social issues as consumers extend this behaviour into their portfolio strategies. This framework is consistent with a psychic return theory in SRI decision for which a responsible investment may be driven more by investor concerns toward the social aims of firms rather than by strictly financial returns. Therefore, theoretically, for the analysis of the investor behavior, it's possible to make reference to the same attitude for which today consumers move more rapidly than yesterday from a brand to another in function of their perceived level of ethics and CSR. Of course it is not easy to prove this relationship because not everyone who claims to be concerned about the ethical and social behaviour of firms then acts in practice on the basis of this belief (Carrigan and Attalla, 2001).

The perspective of “ethical consumerism” turns useful because, while the demand of SRI is growing, on the offering side the capital market is witnessing the spread of SRI as an investment philosophy for an increasing number of institutional investors. This should facilitate the shifting of resource allocation on the basis of the personal concerns with CSR and ethics. In fact, the “brand identity” of these not-conventional financial intermediaries consists in the management of socially responsible products and services (Sandberg et al., 2009). The latter should be designed to meet the wishes of investors geared not only to the protection of the financial value of the investments, but also interested in the safeguarding of stakeholder instances. After all, this investment approach is in line with the continuing challenges for socially responsible business in the new millennium that seek to concurrently be profitable, obedient to law and engaged in ethical behaviour (Carroll, 2000). Insofar as it is possible to recognize greater convergence between investors' objectives and companies' responses to the demand for ethical and social responsibility, it might be possible to bridge Friedman's (1970) much-disputed proposition on CSR that considers the profit as the only responsibility of managers, while respecting the legal and ethical constraints of the society in which the company operates.

Moreover, by acting as an intermediary between the private investor and the target companies, SRFs offer investors the opportunity to allocate resources in retail financial products that specifically add social or ethical goals or constraints to normal financial criteria (Sparkes and Cowton, 2004). In this perspective, it is important to understand whether and to what extent the different screening criteria adoptable by socially responsible funds really meet the expectations of investors interested in the respect of ethical beliefs and/or concerned with the compliance for corporate social responsibility. That is, being “financial products” targeted to a specific market segment, the greater or lesser alignment between the screening criteria and the personal preferences of investors can make a difference in the attraction of savers potentially oriented to a SRF. This is an important matter since SRFs may adopt more or less extensive extra-financial screens for the selection of the companies in which to invest.

Thus, the hypotheses to test are formalized as follows:

- H.1** *Investors with higher concerns for corporate social responsibility show a greater willingness to give up a conventional for a socially responsible investment than investors whose concerns with CSR are lower.*
- H.2** *The personal preferences of investors towards different ethical and social screens applied by SRFs affect the level of willingness to give up a conventional for a socially responsible investment.*

## 4. Research Design

Previous studies have adopted different approaches for understanding the motivations of socially responsible investing. Some of them have investigated individuals who have already invested in a socially responsible way (Berry and Yeung, 2012; Cheah, 2011; Lewis and Mackenzie, 2000; McLachlan and Gardner, 2004; Nilsson, 2008), others have used samples of potential investors to simulate the trade-off between conventional and ethical choices (Glac, 2009; Pasewark and Riley, 2010). The first approach provides the opportunity to examine individuals currently committed in SRIs, while the second offers the opportunity “of generating pure ethical investors whose decision criteria can be examined” (Berry and Yeung, 2012: 5).

This study adopts the second approach to determine whether the level of personal concerns with CSR represents a potential motivation for choosing a SRI. In particular, the participants are involved in the selection of hypothetical investment options and the survey asked them to rate several statements related to the CSR concerns in a stakeholder perspective.

### 4.1 Participants and data collection

In line with previous studies (Glac, 2009; Pasewark and Riley, 2010; van der Laan Smith et al., 2010), the experimental analysis was oriented to universities. This choice is coherent with the theoretical assumption that a higher educational level may contribute to better discernment skills for SRI (Nilsson, 2008, 2009). More in particular, the participants to the survey came from a set of Italian universities and this represents a specificity of this study that has several justifications.

First, previous investigations (Glac, 2009; McLachlan and Gardner, 2004; Pasewark and Riley, 2010; Schueth, 2003; Webley et al., 2001) have mainly been conducted in Anglo-Saxon contexts (e.g.: UK; US; Australia). Thus, the research provides evidences and perspectives of analysis from another geographic area characterized by a different economic model (Hall and Soskyce, 2001)<sup>3</sup>. This may be relevant, since, as Sandberg et al. (2009) stated, the differences between countries and regions contribute to the heterogeneity of socially responsible investment. For example, European SRI market is mainly institutional (Eurosif, 2014) and in this context the concept of sustainable business model has a stronger appeal than in the US (Sandberg et al., 2009).

Secondly, in Italy SRIs appear to be less diffused than other European areas, by urging a deepening. In fact, while on aggregate the resources invested continue to grow, in absolute terms only in Austria, Belgium, Finland, Poland and Spain were invested less amounts than in Italy (Eurosif, 2014), a country with total savings relative to GDP (19.35%) that the World Bank (2016) estimates superior to US (16.80%) or the United Kingdom (15.60%). So, this study offers the opportunity to profile the motivation of individual investment decision in a context which seems to be less confident or relatively less sensitive with the SRI phenomenon.

Thirdly, Italy is a country with significant regional gaps. So, by addressing the experimental analysis to a set of universities located in North-Central and in South Italy (islands included), it was possible to intercept the impact of economic differences still existing among these areas. In fact, the North-Central is more financially developed (77% of Italian GDP), while the South is notoriously economically less developed (23% of Italian GDP).

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<sup>3</sup> Hall and Soskyce (2001) distinguish two main economic and financial contexts: liberal market economy (LME) and coordinated market economy (CME). LME overlaps with the Anglo-Saxon systems, while CME includes countries in which the orientation to stockholders is less relevant. According to Hall and Soskyce, the characteristics of Mediterranean countries (e.g., Italy, France, Spain) make these countries closer to CMEs than LMEs.

All the participants were contacted via email or social networks and invited to go to the *Survey Monkey* website to fill out the survey. As Glac (2009) notes, this method may reduce the bias of social desirability by increasing the feeling of anonymity. Moreover, the participation was voluntary and not rewarded. Of 480 people reached, 240 clicked on the link and completed the survey. As explained in the next paragraph, after the application of a filter for the risk-return profile of participants, the final sample of the statistical analyses (descriptive and inferential) consists of 115 individuals.

#### 4.2 The survey

The survey contained three sections (Table 1)<sup>4</sup>. In *section one*, participants were asked to answer five questions. The first four concerning a set of demographic characteristics that could be linked to different behaviors with respect to SRI (Cheah et al., 2011). The fifth question, instead, was referred to the most common investment policies adopted by SRFs. It aims to inform participants about the screening criteria adopted by SRFs, making them more confident in the investment approach of socially responsible funds. At the same time, the study obtained information about the preference of participants towards different investment policies.

**Table 1.** Survey structure: main issues

<b>Section one</b>		<ul style="list-style-type: none"> <li>•Demographic characteristics of participants</li> <li>•Preferences for investment policies adopted by SRFs</li> </ul>
<b>Section two</b>	<b>1st Part</b>	•Three investment scenarios (with different intervals of financial return), asking the participants to choose in each scenario among two alternative Investment Funds, "A" or "B".
	<b>2nd Part</b>	•Three investment scenarios (with the same intervals of financial return showed in the First Part of Section two), asking the participants to choose in each scenario among the Fund "A" and the Fund "B" labeled as a SRF <sub>B</sub> .
<b>Section three</b>		•Five-points Likert statements related to different CSR perspectives.

*Section two* posed six investment questions. In each of these questions participants were asked to make a hypothetical investment (€1,000). In particular, this section consists of two parts. The first part includes three investment options. Participants were asked to allocate their hypothetical resources in an investment fund called “A” or in an investment fund called “B”, without information on the nature of these funds, but distinguishing three investment scenarios for each fund in terms of risk-return relationship. More specifically, in this part, participants’ choice should be based solely on three hypothetical financial performance. In fact, in all the three scenarios, fund “A” offers a higher return with a higher variance, whereas fund “B” shows less variance but also less profitability. Therefore, the structure of the risk-return profiles, associated with the different investment options, aims to manipulate the participants’ investment choices. In particular, fund “A” fits with savers who are theoretically less averse to the risk, while fund “B” should match investors who are more risk averse.

In the second part, then, the *section two* of the survey proposed the same hypothetical three investment scenarios of the first part, holding constant the levels of risk and profitability, but this time the fund “B” is labeled as SRF (SRF<sub>B</sub>).

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<sup>4</sup> The readers may contact authors if interested in more details about the survey.

On the basis of the answers, the study identified the participants (115) who have chosen fund “A” in all three hypothetical options included in the first part of the second section of the survey. Doing so, differently from previous studies (Glac, 2009; Pasewark and Riley, 2010), it has been adopted a filter to control the risk aversion of the potential investors. In other terms, the design of the survey aimed to “neutralize” the choice of SRI from the risk-return trade-off. This procedure leads to a sample reduction from 240 participants that have completed the questionnaire, to 115 individuals that represent the final object of the statistical analyses reported in the paper (descriptive and inferential). Furthermore, the experimental frame allowed to check the number of times participants, who chose always fund “A” in the first part, opt for the fund “B” when it was labeled as SRF in the second part.

Finally, the *section three* of the survey is devoted to the measurement of the level of personal concerns with CSR. While acknowledging the difficulty of assigning a value to this phenomenon, in accordance with previous studies (Glac, 2009; Pasework and Riley, 2010; van der Laan Smith et al, 2010), participants were asked to rate seven statements, related to different CSR perspectives, on a five-point Likert scale. In particular, the survey adopts three main sets of propositions. The first set (statements 1, 2) pertains to the adoption of socially responsible behaviors by companies in general and with specific reference to the policies towards the human resources and the environment. The second set analyzes participants’ sensitivities to general stakeholders concerns (statements 3, 4, 5). Finally, the last set refers to the application of social screens by managers of SRFs (statements 6, 7).

#### **4.3 Models for analyzing investor behavior**

In the first place, the study used the scores that participants provided to the seven statements proposed in the third section of the survey to build a unique CSR indicator for each individual (CSR-measure). Six (1-6) of the seven statements that have been adopted are inspired by the study of van der Laan Smith et al. (2010); moreover, this work considers a seventh statement referred to the expected performance of ethical fund. However, in contrast with previous studies (van der Laan Smith et al., 2010; Pasework and Riley, 2010), for the construction of the CSR indicator, it was not considered the simple sum of the responses to the Likert-scaled statements. In fact, the analysis adopts a more accurate statistical procedure to capture the level of personal concerns with CSR. In particular, because the CSR is an unobservable variable measured by a set of observed indicators on an ordinal scale, the research adopted item response theory as more suitable statistical methodology for the calculation of the CSR measure. Since the items are polytomous, the adequate version of the IRT is the partial credit model (PCM).

In the second place, for capturing the personal inclinations respect to different investment policies based on social, ethical or both screens, the analysis has provided for the construction of three dummies. The first one, called “*Social screen*”, assumes value 1 if participants have expressed preferences for environment and human rights policies, 0 otherwise. The second one, called “*Ethical screen*”, assumes value 1 if participants have expressed preferences for not controversial sectors and for religious values, 0 otherwise. Finally, the third one, called “*Social & Ethical screen*”, is a dummy equal to 1 if participants have expressed preferences for both the Social and Ethical screens, 0 otherwise.

So, to test the research hypotheses, the second section of the survey was built to measure the investment decisions through a count variable which ranges from 0 (no different choice between the first and the second part) to 3 (three different choices between the first ad the second part). The survey, presenting three investment scenarios, allows to count of the occurrences of interest in SRI (i.e., the number of times the final sample of 115 participants adopted in the second part a different investment behavior from the first part). Therefore, respect to previous studies (Glac, 2009) that dichotomize the decision to invest in a socially responsible way or not, the adoption of a count variable should allow to take more accurately into account the level of willingness to invest in SRI.

Considering the investment choice as dependent variable ( $Y_{\text{investment choice}}$ ), the analysis is based on appropriate regression models for count data. In fact, when the dependent variable is in the form of a count, it's necessary to consider that the constraint that counts are all positive integers. Moreover, data are characterized by zero inflation. So, to account for the excess zeros, the analysis applies the zero-inflated counterpart of the Poisson model to verify the research hypothesis.

As independent variable, in order to verify the extent to which the level of personal concerns with CSR affects the decision to opt for a socially responsible investment instead of a conventional one, a first model takes into account the CSR measure as described above. Moreover, the study adopts a second model which includes as independent variable the three dummies previously described (Social screen; Ethical screen; Social & Ethical screens). The aim is to test the impact of personal preferences towards the extra-financial screens of SRFs on the investment choice.

Finally, both models include demographic variables to control for the education level, age, gender, and geographical origins of the participants. The education has been converted to a dummy variable equal to 1 if participants achieved a doctoral degree, and 0 otherwise. Also gender and geographical origins have been converted to dummies. The first dummy assumes the value of 1 for men and 0 for women. The second dummy is equal to 1 if participants come from North or Central Italy and 0 otherwise. Thus, the regression models are represented as follows:

$$\text{(Model 1) } Y_{\text{Investment choice}} = \beta_1 \text{ Education} + \beta_2 \text{ Age} + \beta_3 \text{ Gender} + \beta_4 \text{ Geog. Origin} + \beta_5 \text{ CSR measure}$$

$$\text{(Model 2) } Y_{\text{Investment choice}} = \beta_1 \text{ Education} + \beta_2 \text{ Age} + \beta_3 \text{ Gender} + \beta_4 \text{ Geog. Origin} + \beta_5 \text{ CSR measure} + \beta_6 \text{ Social screen} + \beta_7 \text{ Ethical screen} + \beta_8 \text{ Social \& Ethical screens.}$$

## 5. Results

### 5.1 Descriptive statistics

Table 2 shows several information on the demography, the status and the education of respondents, in addition to their preferences about the general screening criteria of SRFs.

**Table 2.** Participant demographics and SRFs' policies preferences

<b>Number</b>	Surveys distributed	480
	Surveys completed	240
	Participants included into the final analysis	<b>115</b>
<b>Education</b>	First level graduates	13 11.30%
	Second level graduates	35 30.44%
	Researchers/Professors	67 58.26%
<b>Age</b>	21-38	43 37.39%
	39-56	55 47.83%
	Over 56	17 14.78%
<b>Gender</b>	Male	69 60.00%
	Female	45 39.13%
	No gender indication	1 0.87%
<b>Geographical origin</b>	North-Central Italy	43 37.39%
	South Italy	72 62.61%
<b>Investment policy preferences *</b>	Environment	73
	Human rights	78
	Not controversial sectors	42
	Religious values	6

(\*) Participants were asked to select one or more investment policies of SRFs.

In particular, the final sample comprises first level graduates (11.30%), second level graduates (30.44%) and researchers/professors (58.26%). The main part of the participants was between the age of 39 and 56. The 60% were male and the majority (62.61%) came from South Italy. Considering the preferences towards the most common screening policies adopted by SFRs, participants seem to particularly care human rights (78 preferences) and the environment (73 preferences). Less or scant interest was shown in the exclusion of controversial sector (42 preferences) and in the application of religious criteria (6 preferences). The investment scenarios posed enabled to observe the investment decisions. In table 3 are displayed the answers the final sample of 115 participants have provided in the second part of section two of the survey. In particular, the 49.57%, the 46.09% and the 50.43% of participants prefer to opt for the SRF<sub>B</sub> in the investment scenario one, two and three respectively.

**Table 3.** Investment decisions (2nd part in section two of the survey)

Investment scenarios	Return intervals	Conventional Fund (A)	SRF <sub>B</sub>	Missing	Total	SRF <sub>B</sub> Preferences
1	Fund A 3.5% - 8% SRF <sub>B</sub> 4% - 4.5%	55	57	3	115	49.57%
2	Fund A 5.6% - 15% SRF <sub>B</sub> 6% - 7.2%	57	53	5	115	46.09%
3	Fund A 6.3% - 16.5% SRF <sub>B</sub> 7% - 7.5%	57	58	0	115	50.43%

Considering, then, the number of times the 115 participants opted for the SRF<sub>B</sub>, as in previous studies (Berry and Yeung, 2012; Nilsson, 2009), it is possible to identify different groups of investors (Table 4).

**Table 4.** Groups of investors

Groups	strictly financial oriented $\longrightarrow$ strictly-ethical oriented			
	First	Second	Third	Fourth
Number of choices in SRF <sub>B</sub>	0	1	2	3
Participants	49	10	10	46
Share in Total (115)	42.6%	8.7%	8.7%	40.0%

A first group (49 participants, 42.6%) that has never opted for SRF<sub>B</sub>, always preferring the conventional investment fund (both in the first and the second part of section two of the survey). A second group (10 participants, 8.7%) that has opted for only once. A third group (10 participants, 8.7%) and a fourth group (46 participants 40.0%) that have opted for the SRF<sub>B</sub> two and three times respectively. In theory, these results seem consistent with the concept of *continuum* reported in Pasewark and Riley (2010), who label private investors as a category that range from a *strictly financial orientation* (e.g.: 49 participants that have always chosen the investment option “Fund A”) to a *strictly ethical orientation* (e.g.: 46 participants that have opted for “SRF<sub>B</sub>” in all three scenarios of the second part of section two of the survey).

Finally, in table 5 are displayed the descriptive statistics related to the section three of the survey. In particular, the data report the percentage of answers issued by the final sample of 115 participants for each score referred to the CSR statements proposed. From the table it's possible to notice a higher frequency of preference in correspondence of the scores 4 (mean equal to 51.30%; median equal to 54.78%) and 5 (mean equal to 24.35%; median 24.35%) that could subtend on average a good degree of sensitiveness towards the different CSR issues proposed through the statements.

**Table 5.** Percentages of answers to CSR Statements

Statement	Score					Missing
	1	2	3	4	5	
1	0.00%	2.61%	7.83%	48.70%	40.87%	0.00%
2	0.87%	13.04%	6.96%	54.78%	23.48%	0.87%
3	6.96%	37.39%	14.78%	28.70%	12.17%	0.00%
4	1.74%	0.87%	9.57%	61.74%	26.09%	0.00%
5	0.87%	11.30%	16.52%	58.26%	13.04%	0.00%
6	0.87%	0.87%	12.17%	55.65%	30.43%	0.00%
7	1.74%	12.17%	10.43%	51.30%	24.35%	0.00%
Mean	1.86%	11.18%	11.18%	51.30%	24.35%	0.12%
Median	0.87%	11.30%	10.43%	54.78%	24.35%	0.00%

### 5.2 CSR measure

As previously mentioned, to build a CSR measure indicating the level of personal concerns with CSR of each participant, it has been applied the PCM (see Table 6).

**Table 6.** PCM Summary

Person: Real, Sep.: 1.54, Rel.: 0.70; Item: Real, Sep.: 5.38, Rel.: 0.97; Item Statistics: Measure Order												
Entry number	Total score	Count	Measure	Model S.E.	Infit		Outfit		Ptmea Corr.	Exact match		Statement
					Mnsq zstd	Mnsq zstd	Mnsq zstd	Mnsq zstd	Corr	Obs.%	exp%	
2	711	225	1.15	0.09	1.50	4.8	1.84	6.8	0.58	41.1	46.3	3
4	825	224	0.40	0.10	1.47	4.1	1.69	4.9	0.47	54.6	59.9	5
7	893	224	0.10	0.10	0.67	-3.1	0.62	-3.6	0.73	71.1	61.6	2
6	891	222	-0.01	0.10	0.65	-3.4	0.61	-3.8	0.73	71.4	60.1	7
3	911	222	-0.25	0.11	1.17	1.3	1.32	2.4	0.50	65.4	65.8	4
5	934	224	-0.47	0.12	0.62	-3.4	0.57	-4.2	0.74	77.5	68.0	6
1	979	225	-0.93	0.12	0.71	-2.7	0.67	-3.0	0.67	73.5	65.5	1
Mean	877.7	223.7	0.00	0.10	0.97	-0.3	1.04	-0.1		65.0	61.0	
S.D.	80.6	1.2	0.61	0.01	0.37	3.4	0.52	4.3		11.9	6.7	

Results show that item reliability is equal to 0.97 and person reliability is equal to 0.70, so the test has good proprieties of reproducibility. Cronbach's alpha is equal to 0.78 (not reported in table); therefore, the block of observed indicators can be considered one-dimensional. Moreover, the INFIT and OUTFIT statistics do not present values outside the range (0.6–1.4), except for two (Statement 3, Statement 5), which are slightly higher; thus, there is a good fit between the data and the model for all the items used. As the data conform to the PCM, the set of observed indicators on the ordinal scale allows to calculate the CSR measure properly. This variable offers an estimation of the personal attitudes toward CSR and enables to attribute a well-defined measure to unobservable dimension. In particular, by applying the PCM, it's possible to measure the extent to which each

participant has a strong or weak orientation to the CSR statements proposed in part three of the survey.

### 5.3 Regression analyses

For assessing the investment choices, in order to test the research hypotheses, two zero-inflated Poisson regressions with robust standard errors have been applied. Table 7 provides the number of observations used (115) and the number of non-zero observations (66), along with the Wald chi-square, to compare the full model with a model without count predictors, giving a difference of five (model 1) and eight (model 2) degrees of freedom. Both models, as a whole, are statistically significant and the Vuong test indicates that the zero-inflated model is better than an ordinary Poisson regression.

With reference to the first model, the CSR measure is a statistically significant positive predictor of socially responsible investing. The coefficient for the CSR indicator is 0.13. This means that the expected increase in log count for a one-unit increase in the CSR measure is 0.13. Moreover, the inflated coefficient for the CSR measure suggests that for each unit increase, the log odds of an inflated zero decrease by 0.91. So, differently from previous studies (Glac, 2009), the analysis shows that the personal concern with CSR is a driver of the decision to experience a SRI. Indeed, results indicate that people with a higher level of personal concerns for CSR show a greater willingness to give up a conventional for a socially responsible investment, thus confirming the first research hypothesis (H1).

With reference to the second model, the preference for the Social screen is a statistically significant positive predictor of socially responsible investing, while confirming the CSR measure as a driver of the investment choice. More in particular, the coefficient for the Social screen is equal to 0.65. This means that the expected increase in log count for a one-unit increase in the preference for Social screen is 0.65. Moreover, the inflated coefficient for the CSR measure suggests that for each unit increase, the log odds of an inflated zero decrease by 0.93. So, findings indicate that the preference for screening policies related to the protection of the environment and the human rights is associated with a greater willingness to renounce a conventional for a socially responsible investment. Thus, with reference to the Social screen, the second research hypothesis (H2) is confirmed.

Furthermore, as a corollary of findings, the analyses demonstrated that the decision to opt for a SRI go beyond a purely economic calculation. That is, given the design of the survey, the availability to give up a more profitable investment, but conventional, for a socially responsible investment increases with the increase of the personal sensitivity to CSR and other extra-financial factors like the preference for investment screens that take into account the social policies oriented to the protection of the environment and the human rights. Indeed, assuming the same propensity to risk, investors with higher concern about the corporate social responsibility, mixed with a preference for basic CSR policies aiming at the preservation of the natural resources and the defense of human rights, show a greater willingness to renounce to a higher financial yield of a conventional investment for a SRI. So, the waiver to a more profitable investment option seems to be compensated by the satisfaction of the so called expressive benefits related to the individual sensitivity for an extra-financial factor like the level of personal concern with CSR. This result confirms that SRI is not primarily motivated by the wealth maximization objective and that the traditional financial models are not able to catch all the motivations underlying the decision to invest socially responsibly.

Table 7. Zero-Inflated Poisson regressions

Statistical Indicators Factors	Model 1						Model 2					
	Robust				95% Conf.		Robust				95% Conf.	
	Coef.	Std. Err.	z	P> z	Interval		Coef.	Std. Err.	z	P> z	Interval	
<b>Sum</b>												
Education	0.06	0.10	0.59	0.55	-0.14	0.26	0.05	0.11	0.46	0.64	-0.17	0.27
Age	0.00	0.00	0.20	0.84	0.00	0.00	0.00	0.00	0.14	0.88	0.00	0.00
Gender	-0.16	0.12	-1.36	0.17	-0.40	0.07	-0.11	0.12	-0.88	0.38	-0.35	0.13
Geographical origin	0.22	0.11	1.89	0.05	0.00	0.45	0.23	0.12	1.93	0.05	0.00	0.47
CSR Measure	0.13	0.03	3.32	0.00	0.05	0.21	0.13	0.04	3.13	0.00	0.05	0.22
Social screen							0.64	0.36	1.78	0.08	-0.07	1.36
Ethical screen							0.72	0.12	0.62	0.54	-0.15	0.30
Social & Ethical screens							0.00	0.10	0.01	0.96	-0.19	0.20
Constant	0.49	0.24	2.02	0.04	0.01	0.96	-0.19	0.45	-0.43	0.67	-1.07	0.68
<b>Inflated</b>												
CSR Measure	-0.91	0.31	-2.90	0.00	-1.53	-0.29	-0.94	0.34	-2.74	0.00	-1.61	-0.27
Constant	0.40	0.38	1.05	0.29	-0.34	1.15	0.32	0.40	0.79	0.43	-0.47	1.10
No. of obs.	115						115					
Nonzero obs.	66						66					
Zero obs.	49						49					
Wald $\chi^2$ (d.f.)	(5) 12.37						(8) 8.11					
Prob. > $\chi^2$	0.0301						0.0204					
Log Pseudo-likelihood	-159.0582						-157.5229					

Finally, with regard to the control variables, the z-test statistic for the variable *Geographic origin* is equal to 1.89 and 1.93 in the first and in the second model, with an associated *p*-value of 0.05. When setting the alpha level to more than 0.05, it's possible to conclude that the regression coefficient is statistically different from zero, given the other variables in the models. Thus, in line with the position of Sandberg et al. (2009) the geographical and economic context may exert a significant influence on the decision to invest ethically. In particular, given the construction of the dummy variable, the results indicate that participants from North and Central Italy (better economically and socially developed than the South) are more willing to choose a socially responsible fund instead of a conventional one.

## 6. Conclusions

This work has emphasized how investment choices may not solely depend on a narrow economic calculation. In particular, the recognition of non-financial concerns emerged as a useful framework to interpret the behaviour of socially responsible investors. So, among the potential extra-financial determinants, the study assumes the personal concerns with CSR as a positive driver of the choice to give up a conventional for a socially responsible investment. At the same time, the study assumes that the alignment between the investment screens and the personal preferences impacts positively on the decision to invest socially responsibly through the intermediation of SRFs.

The results of the empirical analysis confirm the research hypotheses. In the first place, the more the investor cares about the social responsibility of corporation, the higher is the probability

that she/he decides to allocate her/his resources in SRFs, even at the price of a financial sacrifice. Therefore, the wealth maximization criterion is not sufficient to understand the deeper motivations of individuals available to opt for investing socially responsibly. In second place, the alignment between the extra financial screens potentially adopted by SRFs and the personal preferences of savers is a relevant condition for the investment decision, since not necessarily all the extra financial screens match with the personal beliefs. This result could be read through the concept of sense-making, that is the “mental process by which individuals develop cognitive maps of their environment” (Basu and Palazzo, 2008, p.123), attributing a sense to the flows of experience and information. Findings of this study show a significant preference for the SRFs screens based on the preservation of natural resources and the respect for human rights.

The paper presents some limitations. First, as typical for this kind of studies, the absence of a real financial loss may limit the findings. Second, since the data was collected from a sample which was drawn from only one country, the results can be generalized only in this country or carefully extended in similar contexts. Third, the adoption of a synthetic indicator (*CSR measure*) may limit the range of information regarding the personal concerns with CSR. Therefore, further research on personal concerns may be conducted at an international level or by deepening the impact of single pillars of CSR (e.g.: environment, society and governance) on individual investment decision.

Notwithstanding the mentioned limits, the study helps to bridge a gap of knowledge about the motivations of individual investor, expanding the range of factors that can justify the investment choice. In this sense it provides a message to the economic institutions, such as mutual funds and corporations involved in the collection and allocation of financial resources. From an institutional investor point of view, the understanding of personal characteristics and motivations of SRI can lead to a reduction of the potential agency conflict between principal (the saver) and agent (the fund) that the literature (Juravle and Lewis, 2008) identifies as one of the main impediments to SRIs becoming mainstream. From the company perspective, instead, findings can help to further legitimize the CSR as a wider strategic approach to business programs. This can create a bridge between a management consistent with the conventional mandate for profit and the conviction to act in line with the expectations of investors looking not only at the pure financial performance. Finally, the impact of the personal concerns with CSR offers an additional justification for leveraging on the corporate social disclosure (CSD) in order to strengthen the relationship with the individual investors (Gangi, 2015). In this respect, a higher transparency of socially responsible firms and institutional investors may contribute to offset the nominal “ethical sacrifice” by mitigating information asymmetries and agency costs.

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