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Understanding Socially Responsible Investing: The Effect of Decision Frames and Trade-off Options

Katherina Glac

ABSTRACT. Over the past two decades, the phenomenon of socially responsible investing has become more widespread. However, knowledge about the individual socially responsible investor is largely limited to descriptive and comparative accounts. The question of "why do some investors practice socially responsible investing and others don't?" is therefore still largely unanswered. To address this shortcoming in the current literature, this paper develops a model of the decision to invest socially responsibly that is grounded in the cognition literature. The hypotheses proposed in the model are tested with an experimental survey. The results indicate that the framing of the investing situation influences the likelihood of engagement in socially responsible investing and how much return the individuals are willing to sacrifice when choosing socially responsible over conventional investments. The study does not find support for a relationship between expectations about corporate social responsibility and the likelihood of engagement in socially responsible investing.

KEY WORDS: corporate social responsibility, decision framing, decision making, investor behavior, investor cognition, social reporting, socially responsible investing

Over 4 years ago, Dunfee (2003) asked the question whether socially responsible investing (SRI) is mainstream or backwater and he concluded that the it "[…] has the potential to become a mainstream phenomenon practiced by ordinary investors and reflected in the investment policies of retirement plans and mutual funds" (Dunfee, 2003, p. 252). This potential is increasingly being realized. Based on the biennial report on SRI conducted by the Social Investment Forum, the proportion of assets invested in a socially responsible way was at almost 10%, or $2.29 trillion, in 2005 (Social Investment Forum, 2006).

Socially responsible investing, as defined by the Social Investment Forum (2006), includes social screening (i.e., the consideration of social criteria to either avoid or seek out specific investments for a portfolio), community investing, and shareholder advocacy. Since over two-thirds of SRI assets are in screened mutual funds or separate accounts (Social Investment Forum, 2006), many financial institutions in the marketplace have started to offer products that consider different social issues in the selection of portfolio assets.

Despite the interest in SRI by academics and participants in the marketplace, the understanding of the motives, psychology, and decision-making of individual socially responsible investors[1] is still incomplete and still largely limited to descriptive accounts (Anand and Cowton, 1992; Cullis et al., 1992; Lewis and Mackenzie, 2000a, b; Mackenzie and Lewis, 1999; Rosen et al., 1991) or studies comparing the characteristics of investors who invest in SRI and those that do not (Lewis, 2001; McLachlan and Gardner, 2004; Tippet and Leung, 2001). Not only is there only a scantly developed theoretical basis for understanding SRI, but there is also little knowledge about the individual and contextual variables that predict the investor's decision to consider social criteria in their portfolio selection. Currently, only a couple of studies have developed and tested hypotheses about investor behavior (McLachlan and Gardner, 2004; Webley et al., 2001). Thus, the question of "why do some investors

Katherina Glac is currently finishing her doctorate in Business Ethics and Legal Studies at the Wharton School at the University of Pennsylvania.

practice SRI and others don't?'' is still largely unanswered.

In particular, for large multinationals who often are among the best corporate citizens, this ambiguity about the support of their socially responsible conduct by the investing public is problematic. Corporations need to know why investors choose to invest in socially responsible corporations and to what extent their choice of corporations that are less socially responsible is indeed a reflection of their low preference for corporate social responsibility or a reflection of other constraining factors.

In order to address some of the shortcomings in the current literature, this paper develops a model of the individual investor's decision to consider social criteria in her portfolio selection that is grounded in the cognition literature. In this framework, decision frames that individuals have of a particular decision situation are of critical importance. Decision frames not only help the individual understand the decision situation but also affect further information processing and the integration of this information (i.e., the making of trade-offs) into a final decision. One of the central hypotheses developed in the model is that the type of decision frame that investors apply to the investment decision will affect the likelihood of considering social criteria in their investment selection and the level of returns that they are willing to accept for a SRI product. The hypotheses proposed in the model are tested with an experimental survey that cues different decision frames.

Given the predominance of social screening among the different types of SRI, the focus in this paper is the decision of the ''average'' individual investor to screen their investment, i.e., avoid or seek out certain investments based on different social criteria. While shareholder advocacy has become a larger and increasingly important part of the overall SRI movement over the past years (Social Investment Forum, 2006) and has in the past gone hand-in-hand with social screening (Sparkes, 1998), shareholder advocacy will not be considered in this paper because the advocacy process is distinct from the screening process. Activism is more involved and the associated decisions include the performance of further actions in addition to choosing certain investments. For example, investors have to overcome certain procedural hurdles to submit shareholder resolutions and might have to initiate lawsuits to enforce their legal rights (Domini, 1994; Sparkes, 1998). This might be associated with significant time involvement as well as additional financial sacrifice. Screening, however, is less active since the decision under examination refers to the selection and management of investment portfolios only. While investors might have to spend time and money to establish which criteria they want to consider and which companies fit these criteria, the main decision process is completed after the portfolio has been assembled.

Behavior and motivations of socially responsible investors

Throughout the different studies performed in the area of socially responsible investing to date, certain themes emerge consistently. First, the majority of SI investors seem to be as interested in the financial performance of their investments as regular investors, which indicates that for most SR investors, SRI is not an act of charity or an attempt to assuage a guilty conscience (Cullis et al., 1992; Lewis and Mackenzie, 2000a, b; Mackenzie and Lewis, 1999; Rosen et al., 1991). However, SR investors seem to have a higher acceptance for return differentials between conventional and screened investments, which indicates that they derive utility from both financial as well as non-financial characteristics of their investments (Lewis and Mackenzie, 2000a, b; Webley et al., 2001).

Second, many SR investors seem to view investing as an extension of their life-style or identity, wanting to apply their social beliefs and values in this area of their economic life as well (Lewis and Mackenzie, 2000a, b; Rosen et al., 1991; Webley et al., 2001). This conclusion is also supported by the frequent membership of SR investors in other social engagement groups (Rosen et al., 1991). Interestingly, similar to SR investors, regular investors also seem to place importance on non-economic aspects of their investments, but in contrast to SR investors, they emphasize the economic requirements of investing when they explain their investment behavior (Lewis, 2001; McLachlan and Gardner, 2004). McLachlan and Gardner thus conclude that the differences between the types of investors ''are more likely to be due to differences in cognitive, personality, and environmental dimensions" (McLachlan and Gardner, 2004, p. 20).

The themes reflected in the SRI and investing literature point to two main cognitive models investors have of the investment decision.[2] The first model frames investing as a type of decision that is functional in nature and mainly contains financial knowledge elements, which Lewis, for example, has called "normal" (Lewis, 2001, p. 332). Given the large public relations campaign the New York Stock Exchange initiated in 1954 (Traflet, 2003), which was aimed at increasing the knowledge of the public about the equity market (Shiller et al., 1984), the knowledge elements any investor is made familiar with are the types and level of risk associated with different investments, the relationship between return and risk, and nonsystematic risk reduction through diversification (Downes and Goodman, 1999; Lintner, 1965; Markowitz, 1952; The Financial Planning Association, 2004).

The second model frames investing as a type of decision that is expressive in nature and extends the investor's identity and social beliefs into the investment choice. For example, one investor in Lewis' focus-group study said that investing "[...] is part of me and therefore it should follow the same sort of principles that I want to in the rest of my life." (Lewis, 2001, p. 337) This type of mental model is similar to the ones described in the ethical consumerism and symbolic consumption literature (see, for example, Grubb and Grathwohl, 1967; Hogg and Michell, 1996; Kleine et al., 1993; McCracken, 1988). The conceptualization of investing as an expressive purchasing or consumption activity is reflected in the existing literature (Allen et al., 2000; Cullis et al., 1992; Smith, 1990). For example, in their discussion of SRI and corporate social reporting, Gray et al. (1996) explicitly draw parallels between the SRI movement and what they call the "consumer movement."

This duality of cognitive models mirrors what has been called the "separation theorem" in the finance literature, which states that in efficient markets, individuals maximize their income when they separate decisions that relate to consumption from those that relate to income production, i.e., the investment activities (Hirshleifer, 1988). This separation means that investors should not apply their tastes or personal preferences to the selection of investments and should not "consume" the satisfaction from investing in social funds, for example, but rather they should maximized income by following financial principles, which will maximize their charitable giving or "doing good" potential (Ferris and Rykaczewski, 1986; Hylton, 1992).

The role of decision frames in decision processes

Decision frames play an important role in any decision making process. On a very general level, any decision process involves two main stages (Pitz and Sachs, 1984). First, when confronted with a decision problem, individuals organize the information that is associated with the problem in a way that is meaningful to them (Johnson-Laird, 1981). Such mental models or decision frames subsequently affect the judgment based on how the uncertainties that are represented in the mental model are perceived by the decision maker (Pitz and Sachs, 1984). Second, the relevant information is integrated in a way that minimizes conflict between the decision maker's preferences for the outcomes associated with the decision options and a decision is made (Pitz and Sachs, 1984).

Decision frames have received particular attention in the area of social psychology that focuses on social cognition (particularly advanced by Fiske and Taylor, 1991), which investigates the cognitions that connect stimuli to particular behavioral responses (Walsh, 1995). The ideas of social cognition have been widely embraced by the management and organization research community to inform the understanding of behavior in organizations (see Walsh, 1995 for a review). The main concept at the center of the research on how individuals process information in organizational and managerial behavior is the "[...] mental template that individuals impose on an information environment to give it form and meaning [...] in a way that enables subsequent interpretation and action." (Walsh, 1995, p. 281).

Decision frames are activated by a decision situation and enable the individual to interpret the complex information in the environment and create an understanding of what the situation means. Once active, decision frames guide further information acquisition and the kind of actions that should be taken (Weick, 1979). The link between action and decision frame has been empirically established in a range of studies in the organizational behavior literature. The presence or absence of certain decision frames have been related to outcome variables such as motivation, leadership, performance appraisals, and other evaluative judgments (see, for example, Cellar and Barrett, 1987; DeNisi et al., 1984; Lord et al., 1984; Lurigio and Carroll, 1985).

Since different types of decision frames can be evoked in different individuals by the same situation, and subsequently, can be associated with different behavioral outcomes, the decision frame used by individuals to interpret the investment situation is an important variable in the modeling of the decision process. The second important element in the overarching decision model is the integration of the decision maker's preferences for the outcomes associated with the decision options, i.e., how investors make trade-offs.

As indicated above, the existing literature provides support for both stages of this general decision model. It indicates that investing is framed in different ways by different investors, and it indicates that investors differ in the ways they make trade-offs.

SRI decision model and hypotheses

As mentioned above, some investors see investing as a type of decision that is expressive in nature and extends the investor's identity and social beliefs into the investment choice. The application of social criteria to portfolio selection and management might thus fulfill important identity enhancing and preserving functions for investors (Hogg and Michell, 1996; Wattanasuwan, 2005). Some investors might want to either avoid the negative symbolic associations that could come from supporting unethical firms or seek out the positive associations that could come from engaging in SRI, just as they seek out or try to avoid certain symbolic associations from the products they buy (Grubb and Grathwohl, 1967; Hogg and Banister, 2001; Kleine et al., 1993). Therefore, individuals, whose investment decision frame allows for the expression of their values and beliefs in ways similar to consumption, will be more likely to apply social criteria to their portfolio selection. On the other hand, the application of non-financial criteria to portfolio selection can be considered contrary to standard portfolio theory, as several authors have argued (Brealy et al., 2006; Hylton, 1992; Langbein and Posner, 1980). Given that, in general, the set of relevant criteria for investors who have a financial investment decision frame does not include social criteria, they will be less likely to use them in their portfolio selection.[3] Thus, hypothesis 1 proposes:

H1: Investors who have an expressive decision frame in investment situations will be more likely to invest socially responsibly than are investors who have a financial decision frame.

In the second stage of the decision process, investors evaluate information about the available decision options and the associated outcomes based on their salient decision frame and integrate this information to arrive at a decision that fits their preference set (Pitz and Sachs, 1984). While different investors might have different preference sets, one common preference is the achievement of returns (Cullis et al., 1992; McLachlan and Gardner, 2004; Rosen et al., 1991). However, given the difference in decision frames that investors use, it is likely that both the goals they consider and the trade-offs between them will differ as well. As was postulated by hypothesis 1, investors who apply an expressive decision frame are able to maintain and enhance a positive self-image through their investments. Therefore, they will be likely to place a monetary value on this image enhancement just as consumers might pay a premium for products from ethical firms. On the other hand, investors who focus on the income generating function of investing should only consider the traditional financial criteria such as level of return, risk, and asset allocation in their portfolio selection. Thus, hypothesis 2 proposes:

H2: Investors who have an expressive decision frame in investment situations will be willing to sacrifice more returns for the socially responsible investment choice than investors who have a financial decision frame.

Hypothesis 2 proposes that investors with an expressive decision frame might be more willing to give up some financial returns in exchange for psychic returns. However, we know from the consumerism literature that not all consumers who say they care about ethical corporate conduct actually follow through on these beliefs and buy products from ethical or avoid products from unethical firms (Carrigan and Attala, 2001; Roberts, 1996; Simon, 1995). One explanation for consumer action draws on the idea that expectations that are not fulfilled create a stronger negative image compared to situations where expectations are absent (Creyer and Ross, 1997). Consequently, investors whose expectations about corporate conduct are not fulfilled might see a larger threat to their self-image from investing in unethical firms, and thus might be more likely to act on their beliefs. Thus, hypothesis 3 proposes:

H3: Expectations about corporate social responsibility augment the relationship between the investment decision frame and socially responsible investing in the following way: Investors with an expressive decision frame and high expectations for corporate social responsibility are more likely to invest socially responsibly than investors whose expectations are low.

Hypotheses 1, 2, and 3 describe the effect of decision frames and individual beliefs on the likelihood of engaging in SRI and the willingness of making trade-offs between financial and psychic returns from investing. The willingness to make trade-offs, however, might be limited by the ability to make them. As the existing literature indicates, returns are important for SR and regular investors alike (McLachlan and Gardner, 2004). Therefore, even investors who derive value from investing socially responsibly need to generate a sufficient rate of return to achieve their overarching investment goals, which means that they will have a limit to the trade-off they can make. In other words, if the conventional investment alternative yields a low level of return, the investor will have less opportunity to trade off returns for psychic income when choosing the socially responsible investment option. Hypothesis 4, therefore, describes a boundary condition of the decision model:

H4: The level of return of the conventional investment option restricts the investment goal integration in the following way: Investors will be less willing to accept relatively lower returns for the socially responsible investment choice if the return of the conventional investment option is low and more willing to accept relatively lower returns for the socially responsible investment choice if the return is high.

The following model is a graphic representation of the proposed process driving the decision of investors to apply social criteria in their investment selection (Figure 1).

Empirical test of the model

Participants and procedures

The sample for the experimental study was a pool of 240 undergraduate students enrolled in business ethics or professional responsibility classes at two major U.S. universities. The study was administered via the Internet, which, by increasing the feeling of anonymity, should have reduced the social desirability bias. Of the 240 students contacted via e-mail, 166 chose to participate. However, only 121 completed the survey for all model-relevant questions. Of those who chose to report their gender, 39.5% were female and 60.5% were male. The majority of participants were between the age of 20–25.

In order to test the model and to assess whether there is a causal relationship between the investment decision frame and the likelihood of considering social criteria in the investment choice, the investment decision frame was manipulated rather than measured in this study. Manipulating, rather than observing decision frames, has been a popular approach to work in psychology that has studied the effects of frames on decision making (see for example Cantor and Mischel, 1977; Cohen, 1981; Markus, 1977).

After the priming of the decision frame, the survey participants received the same materials that presented a hypothetical scenario in which the participants had to imagine that they were about to decide how to invest their retirement contribution. Participants had to choose between a conventional fund and an SRI fund. The conventional and SRI fund differed only in that the SRI fund was described as "giving special consideration to a range

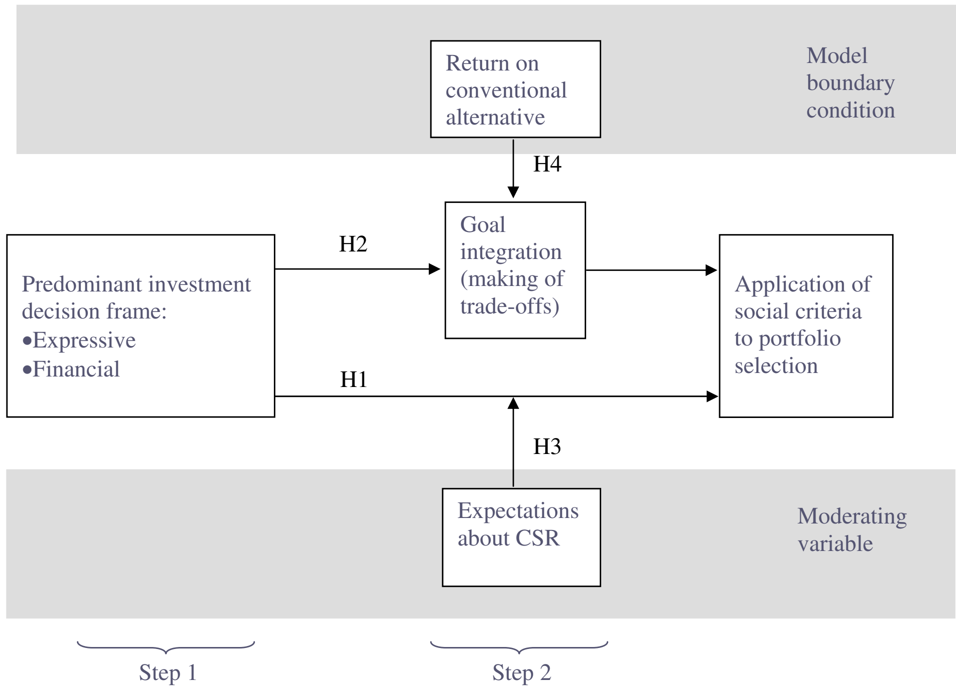

Figure 1. Model of the SRI decision process.

of social criteria in the selection of the companies it invests in.'' In order to capture both positive and negative approaches to screening and a variety of social concerns participants might have, the SRI fund description was left intentionally vague by not specifying the screening approach and listing several examples of social criteria the fund might consider.

The choice of a retirement investment scenario is a more conservative test for the hypotheses, since presumably, saving for retirement presents larger restrictions on the trade-offs that can be made in choosing the socially responsible over the conventional investment option than a situation where the goal is to invest discretionary income in a more secure stage of one's life. Also, saving for retirement is one of the most common investment situations and one most likely to be familiar to undergraduates who might have only limited experience with investing (although it is assumed that business school students will have had at least received a basic knowledge about finance in their coursework).

In order to assess the impact of the profitability of the conventional investment alternative on the trade-offs that participants make when choosing between the two investment option (for hypothesis 4), three scenarios were presented. Each scenario showed a different level of return for the conventional fund option and asked the participant how much the social choice option would have to return for the participant to invest in it. The participant could select a return at the level of or below the conventional fund option in 1% increments and also had an option to choose not to invest in the social choice fund at all. Hypothesis 4 predicts that the return level of the conventional option influences the trade-off between income generation and consumption individuals might be able to make. Therefore, the scenarios varied the levels of returns of the conventional fund in equal increments of 5%, setting the returns at 16%, 11%, and 6%. The Highest return approximates the 5-year return of the best performing blend mutual fund in the recent list of the 70 best mutual funds published by Money Magazine (2007), which is 15.3%. The lowest return approximates the two lowest 5-year returns for blend mutual funds (5.3% and 5.7%) and the middle 11% return approximates the average 5-year returns of the other listed blend mutual funds reported in the same survey (Money, 2007).

After participants completed the decision portion of the survey, they answered several demographic questions and expressed their agreement/disagreement with several statements that were designed to assess their expectations about responsible corporate conduct.

Expressive manipulation
Since the type of activity that SRI most closely resembles is consumerism (which is linked to the individual's identity that SRI might maintain or support) (Smith, 1990), the framing of the decision situation focused the individual on issues associated with the consumer movement. This focus was created by including an introductory paragraph that briefly mentions the consumer movement and describes the survey as one aimed at studying purchasing preferences and attitudes toward corporate conduct. Subsequently, the participants were asked to express their agreement with several statements to determine their concern for ethical corporate conduct in the consumption context (for example, ''It is important to me that firms I buy from have a reputation for ethical behavior''). These items were adapted from an instrument used by Creyer and Ross (1997). Since these items ask the participants to express their beliefs and attitudes toward consumption from ethical/unethical firms, the aspects of their identity associated with ethical consumption should be salient and thus influence the subsequent investment decision as postulated by hypotheses 1 and 2.

Financial manipulation
In order to activate the financial decision frame, the survey instrument focused the participants on the financial aspects of the decision by first mentioning the steadily growing share of the population that participates in the financial markets and by describing the study as one aimed at investigating investment preferences. Subsequently, participants were asked to express their agreement with several statements about the attitude toward financial markets and investing as well as their attitude toward money and saving (for example, ''I budget my money very well'' or ''Investing in the stock market is over the long run the best option to build wealth''). These items were adapted from instruments used by Keller and Siegrist (2006). Since these items ask the participants to express their beliefs and attitudes toward money, investing and financial markets this information should be salient and thus influence the subsequent investment decision as postulated by hypotheses 1 and 2.

Control group
In order to control for the influences of the decision frames, a neutral version of the survey was administered to a control group. The control version only presented the survey as one aimed at studying investment preferences and attitudes toward corporate conduct. There were no further questions before the decision situation.

Measures

Acceptable trade-off
The model proposes two separate dependent variables in the decision process. The first dependent variable is the trade-off investors make, which is characterized by how much return they are willing to sacrifice for choosing the SRI option. The trade-off is calculated by subtracting the indicated SRI return from the return of the conventional fund option. The lowest possible trade-off is zero if the participants indicate that the SRI option return would have to be at the same level as the equity fund return. Since the increments are the same in each of the three return scenarios and the increments between the scenarios are constant, the trade-off values are comparable among the scenarios.

Engagement in SRI
The second dependent variable captures the decision to invest in SRI on a more general level. This variable is defined as the occurrence that participants apply social criteria in their portfolio selection and management, i.e., whether they choose the social choice option in any of the three return scenarios. In order to collect this dichotomous variable for hypothesis 1 and 3, those responses where the ''I would not invest in the social choice fund'' option is chosen are assigned a value of zero; in all other cases, the variable value is one, since the participants, by choosing a certain acceptable return for the social choice option, have made a decision to invest in SRI.

Expectations for corporate social responsibility
Capturing the concept of corporate social responsibility (CSR) for data collection is not without problems. The conceptualization and definition of CSR has solidified over the years (Carroll, 2006), but has remained relatively broad. Overall, there is a

distinction in views between those that consider the social responsibility of business to encompass "the economic, legal, ethical and discretionary (philanthropic) expectations that society has of organizations at a given point in time"(Carroll, 1979, p. 500) and those that do not include the economic and legal expectations but rather focus on the voluntarily adopted obligations (Jones, 1980). There is also a minimalist view that the responsibility of business to society is purely economic in nature (Friedman, 1970), but this view does not reflect the current and predominant thinking in the literature on CSR.

However, despite conceptual solidification, there are many different domains and corporate behaviors that might correspond to the societal expectation in the different responsibility categories (Sen and Bhattacharya, 2001). Many researchers draw on the categories and behaviors contained in the extensive ratings database assembled by KLD (see, for example, Berman et al., 1999; Hillman and Keim, 2001; Waddock and Graves, 2000), some developed their own survey instruments based on the four CSR components introduced by Carroll (Aupperle et al., 1985) and yet others look toward the screens that mutual funds use to select their investments and other proxies of CSR as fits their research needs (see, for example, Mallin et al., 1995 and other work on the performance of SRI funds).

Therefore, the selection of items to capture investors' level of CSR expectations is not without a measure of subjectivity. As Sen and Bhattacharya (2001) summarize, there are many different domains in which corporations exhibit responsible behavior. Since much research is based on the KLD data, it seems as if the domains included in this database have proven themselves as useful categories for various CSR activities. These domains and included behaviors are as follows (Domini Social Investments, 2006):

- Community (e.g., engagement in philanthropy and community partnerships, and acknowledgement of Human Rights).
- Customers (e.g., avoidance of harmful and addictive products, commitment to safety, and responsible marketing practices).
- Ecosystems (e.g., eco-efficiency and conservation, recycling, pollution control, and environmental sustainability).
- Employees (e.g., fair and just compensation, commitments to diversity, training, and solidarity with unionized workforce).
- Investors (e.g., openness in communications).
- Suppliers (e.g., standards for labor practices and human rights; diverse supply chain).

Out of these different dimensions and behaviors, five (environment, community relations, diversity, product issues, and employee relations) have been most widely used in research about corporate social performance and have been shown to be the most relevant ones to stakeholder perception, including future employees (Backhaus et al., 2002). The scale used in this study includes two items for each CSR dimension ($\alpha = 0.77$) and includes statements such as "Corporations have an obligation to be environmentally responsible" and "Corporations should help improve the living conditions in the communities they operate in." The responses to the item statements are recorded on a 5-point scale (1 = strongly disagree and 5 = strongly agree). In order to enable analysis of frequencies with this measure, the data are dichotomized with a mean split, where values above and including the mean of 3.5 (min. 1.1 and max. 5) are assigned a 1 to indicate high expectations of CSR and values below the mean are assigned a 0 to indicate low expectations of CSR.

Results

Approach to analysis

In this study, the independent categorical variables manipulated were the investment decision frame (i.e., expressive or financial) and the level of return of the conventional investment option (high, medium, and low). Since all levels of the second manipulation, the return level for the conventional investment option, were administered to each participant, a mixed factorial design, or two-way ANOVA, was used to analyze the data for hypotheses 2 and 4. Since the dependent variable for hypotheses 1 and 3 is dichotomous, the method of analysis is restricted to an analysis of frequencies.

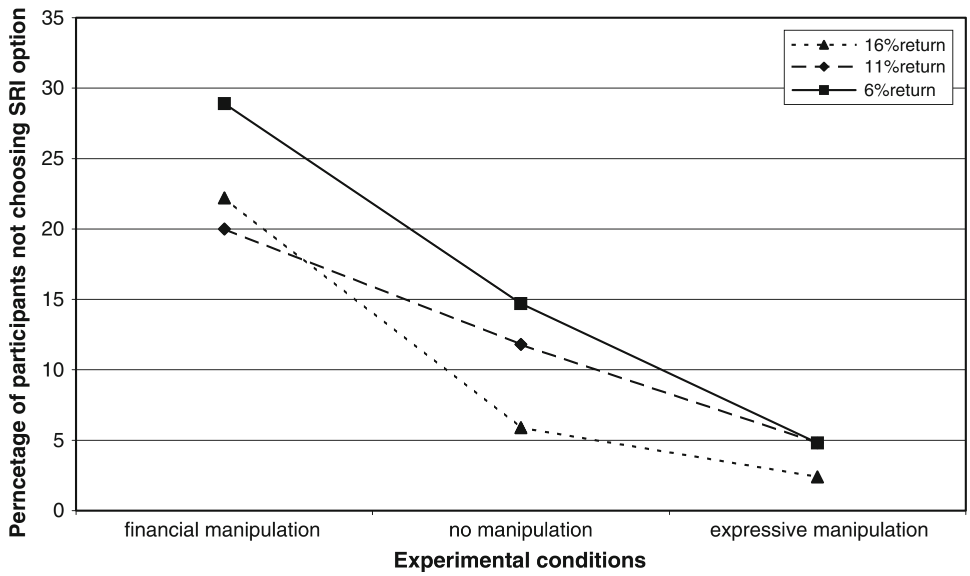

Figure 2. Percentage of participants not choosing the SRI option by manipulation and return-scenario.

Hypothesis 1

The effect of the investment decision frame on the likelihood of engaging in SRI can be tested by comparing the frequencies of engagement in SRI for each manipulation in each of the three return scenarios. Figure 2 shows the results. In the 6% return scenario, 28.9% of the participants in the financial manipulation chose not to engage in SRI. For participants in the neutral and expressive conditions, the percentages decreased to 14.7% and 4.8%, respectively. The global χ^2 is significant (χ^2 (2, N = 121) = 9.28, $p < 0.01$). In the 11% return scenario, 20% of the participants in the financial manipulation chose not to engage in SRI. For participants in the neutral and expressive conditions, the percentages decreased to 11.8% and 4.8%, respectively. The global χ^2 is only significant at the 10% level (χ^2 (2, N = 121) = 4.662, $p < 0.097$). In the 16% return scenario, 22.2% of the participants in the financial manipulation chose not to engage in SRI. For participants in the neutral and expressive conditions, the percentages decreased to 5.9% and 2.4%, respectively. The global χ^2 is significant (χ^2 (2, N = 121) = 10.08, $p < 0.006$). Taken together, the results indicate that participants in the financial manipulation are less likely to engage in SRI than are participants in the neutral or expressive manipulation, which supports hypothesis 1. However, the effect is less pronounced in the 11% return condition, which might be due to this return condition having been presented first in the survey and participants not realizing that they might have an option to *not* choose the SRI option.

Hypothesis 3

The effect of expectations of CSR on the relationship between the decision frame and engaging in SRI can be tested by comparing the frequencies of engagement in SRI for participants with high expectations in CSR with those of participants with low expectations in CSR for each manipulation. There was no significant difference in frequencies between the participants with high expectations in CSR and those with low expectations in CSR for any of the manipulations or return scenarios. Therefore, hypothesis 2 was not supported and the level of CSR expectations does not seem to moderate the relationship between the investment decision frame and the likelihood of engaging in CSR.

Hypotheses 2 and 4

A mixed-model repeated measure ANOVA was used to test whether the level of return for the alternative investment option as well as the experi-

TABLE I

Mean trade-offs in percentage points by manipulation and return condition

Manipulation	6% return scenario	11% return scenario	16% return scenario
Expressive	0.66	2.0	2.55
Neutral	0.82	1.82	2.58
Financial	0.33	0.82	1.24

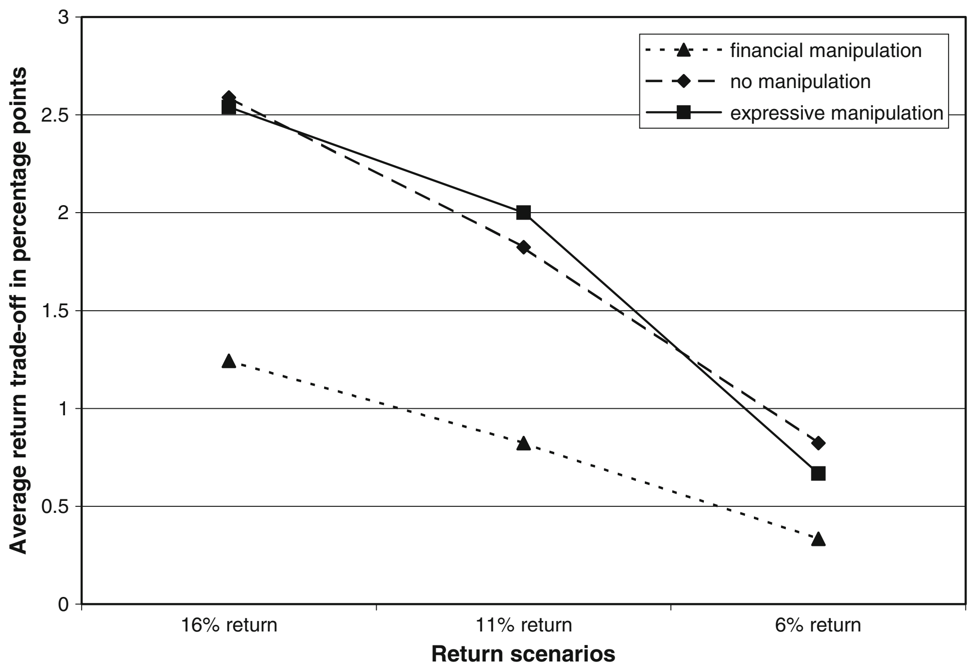

Figure 3. Average return trade-offs by return scenario and manipulation.

mental condition affect the level of trade-off that participants were willing to make. Both hypotheses 2 and 4 were supported. The main effect for the return level (i.e., the between-subjects effect) was significant with F (2, 118) = 39.265 and $p < 0.000$. The mean trade-offs were significantly higher in the higher return conditions than in the lower return conditions (mean trade-off was 0.59% points in the 6% condition, 1.51% points in the 11% condition, and 2.1% points in the 16% condition).

The main effect for the experimental manipulation (i.e., the between-subjects effect) was also significant with F (2, 118) = 3.158 and $p < 0.046$. The mean trade-offs were significantly higher in the expressive and neutral condition than in the financial condition, as Table I and Figure 3 depict.

Discussion

The results of this experimental study offer support for the hypothesized relationships between the decision frames used in the investment situation and the level of return of the alternative options on the likelihood of engaging in SRI and on the level of trade-off that investors are willing to make when considering SRI. These results present a new picture of the investment decision process.

First, the data suggest that the way investors frame the decision situation plays a significant role in determining the likelihood of choosing the SRI investment option. The strongest effect resulting from the experimental manipulation could be seen in the group that was focused on their financial attitudes and where the situation was presented as a study on investor preferences. Not only were the participants in the financial manipulation much less likely to choose the SRI investment option than the participants in the control group, but also those that actually chose to accept the SRI option would only do so at much lower return differentials than the participants in the control group (accepting only about half the return differential that the control group accepted).

The effects resulting from the expressive manipulation were not as uniform as those resulting from the financial manipulation. While the effect of the expressive manipulation played a clear role in the overall likelihood that a participant would choose the SRI investment option, it was not very pronounced in the case of acceptable trade-offs. The acceptable trade-offs of participants in the expressive manipulation did not differ very much from those of the participants in the control group. A possible explanation of this finding might be that in the trade-off decision phase, financial considerations are in general more prominent than social considerations. Therefore, increasing the focus on social issues in the manipulation loses its effect once the investors engage in the integration of their various goals. However, increasing the financial focus might be emphasizing the already dominant aspect in the trade-off phase, resulting in very pronounced manipulation effects. Further research will have to examine the trade-off phase more explicitly to determine whether the explanation above is correct.

Another interesting finding was the effect of the return level of the conventional investment option on the level of trade-offs that investors are willing to make when considering SRI. In all manipulations participants made on average higher trade-offs in the scenario where the conventional investment alternative returned 16% than in the scenario where the conventional investment alternative only returned 11% or 6%. While this result might seem intuitively obvious, it becomes interesting in combination with the lack of results from hypothesis 3, which tested the influence of expectations about CSR on the relationship between decision frame and likelihood of choosing the SRI investment option.

In research on the consumer movement, some of the explanations for why individuals might not act on their expressed beliefs and preferences in their consumption choices are the high price, unavailability, or other detractors associated with products from ethical firms (Auger et al., 2003; Carrigan and Attala, 2001; Roberts, 1996; Uusitalo and Oksanen, 2004). Since it has been argued earlier that there are similarities between SRI and the consumer movement, there might be similar explanations for why individuals who care about CSR might not express these expectations in their investments. While, overall, hypothesis 3 was not supported, there was an almost 15% point difference in the group frequencies in the 16% return scenario between the high and low CSR expectation groups (which is a statistically significant difference). This might indicate that while many individuals care about CSR (the average score on the CSR expectation scale was 3.51 on a 5-point scale), not all feel they can afford to sacrifice returns in order to follow these beliefs. This struggle to make trade-offs between social and financial returns has been documented in the existing literature, but it has so far not been formalized in a decision model. Future research will have to examine in more detail what other factors might inhibit value expression in investment.

Overall, the results present a first sketch of the SRI investment decision process that not only explains some of the findings of previous research but also puts them into one unifying context. To date, research in the area of SRI has been largely descriptive in nature, examining SR investor motivations, demographics, and certain personality characteristics. Other studies have taken this descriptive work and extended it by making comparisons between regular and SR investors. However, very little of this research was grounded explicitly in an overarching theoretical framework that would inform an explanatory model of the decision making process behind SRI. This research tried to reduce this gap in the literature and developed a model of the SRI decision process that builds on the theories of cognition and decision making.

In particular, the model focuses on the two main steps in the decision process, the interpretation of the decision situation through the use of a decision frame and the integration of the individual's goals. Including these two steps in one model combines approaches of previous studies that have either just looked at the way investors make trade-offs or just at the way they interpret the decision situation. The joint consideration of both steps in one model further facilitates an examination of how these two stages work together in the decision process.

In addition to combining the two steps in one model, this research also more explicitly examines the interpretation step, which has been relatively unspecified in the existing literature. Either the work just states that there are distinctions between investors in the way they approach investing or the work implies in the research conclusions that socially responsible investors tend to "see" investing as something more than just a way of generating income. By drawing parallels to existing research in the area of consumerism, this paper explains more explicitly why decision frames influence the outcome of the investment decision.

This study also has some important limitations. The most significant shortcoming is the use of undergraduate students as experimental subjects. One could argue that students have only a limited knowledge of investing and thus the results cannot be generalized to the overall population. However, in experimental studies, external validity is often low – a drawback that is mostly unavoidable but that allows for a controlled examination of causal relationships, which is usually not possible in field studies. Furthermore, the experimental scenario was chosen carefully to create the best possible fit and relevance to the participants. Given that the scenario was about retirement investing, the most common form of investing, and given that the students will have most likely had some course knowledge of finance, the validity concerns can be reduced to general concerns about similarity of decision processes between young adults and older population groups.

In order to remedy these shortcomings, future research will have to test the hypotheses and model relationships using a field study method with real investors as participants. A field study will have the further advantage that investors will not have to imagine what trade-offs they would be willing to make, but they will have already made them, depending on whether they invest in SRI or not.

Implications for corporations and reporting

The finding that the expectations about CSR and engagement in SRI are to a large extent independent of each other is of particular importance to corporations and managers who are involved in creating and defending their social responsibility programs. If it is indeed the case that many more shareholders care about CSR than is visible in the proportion of investors engaging in SRI, then managers can be more confident that by engaging in CSR, they are in fact serving the interests of their shareholders. Up to this day, Milton Friedman's claim that the sole responsibility of corporations is to maximize shareholder value is often reflected in manager's assumptions about what shareholders care about. Therefore, it is important to recognize that expectations, values, and beliefs are not necessarily aligned with actions. Under such circumstances, corporations might want to survey the expectations of their shareholders directly to get a more accurate picture of the issues shareholders care about. Future research will have to develop methods and approaches to capture these values. Such measure will have to be valid and reliable as well as user friendly to facilitate use by managers.

In addition, the gap between investors' expectations about CSR and their follow-through on those beliefs should be further support for an extension of social reporting, particularly for global companies. As was argued earlier, the reason for a preference-action gap has been linked to financial constraints (as was reported here), but it is also often due to a lack of information about the social performance of companies. Since global companies have operations in many and often distant parts of the world where the traditional information channels do not reach, it is critical that companies recognize the need to inform investors about these operations. In order to complete the understanding of the second stage of the decision process, namely the making of trade-offs, it will be important to examine the influence of information availability on investor behavior in future research.

Lastly, this research indicated that the investment decision process is very sensitive to framing effects, in particular, to an emphasis on the financial aspects of the decision. Given that the focus in reporting is predominantly on financial aspects of the business operation, there might be a feedback loop between reporting and investor behavior. That is, the more individuals and institutions focus on financials, the more financials are being reported, and the more the financial focus influences the way investors categorize the decision to invest, which in turn drives the type of reporting. However, if framing effects can play a role in shaping investment decisions, then an increase in non-financial reporting might be a way to change the perceptions of the type of decision that investing is. This in turn might lead to further beneficial effects such as increase in investor and market support for CSR.

Notes

[1] This paper explores the decision making process of the "average" individual investor. It is beyond the scope of this paper to include considerations that might be of importance in the decision process of investment specialists like institutional investors, day traders, and sophisticated investors. It is likely that these individuals have a very role-specific decision frame for investment decisions that is different from the frames average investors have. Future research will investigate the differences in decision making between these investor groups.

[2] While there certainly can be other decision frames for investing, for example, charity or play, the existing literature emphasizes two frames that are active in average individual investors, namely, the financial and expressive frames.

[3] It has been argued that considering social criteria in portfolio selection is actually a way to capture important risk and performance elements (Hylton, 1992). In particular, institutional investors are increasingly taking social performance of corporations into account as predictors of financial performance or predictors of environmental risk (CSR Europe, 2001; Pearce and Ganci, 2002). However, the focus of this paper is on the decision making of the average individual investor and as previous research has indicated, such investors perceive that the consideration of social criteria in portfolio selection is not associated with better, but rather equal or worse performance (Lewis and Mackenzie, 2000a; Mackenzie and Lewis, 1999). Therefore, motivations for SRI that are based on financial grounds rather than value expression are not being included in this paper. However, future work should examine in more detail how financial motives of SRI do or do not enter the decision making of individual investors.

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Department of Ethical and Legal Studies,
The Wharton School,
University of Pennsylvania,
3730 Walnut Street, JMHH Suite 600, Philadelphia,
PA 19104, U.S.A.
E-mail: glac@wharton.upenn.edu