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Investing with Brain or Heart? A Field Experiment on Responsible Investment

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Socially responsible investment is increasingly prevalent in financial markets and is characterized by the integration of financial and nonfinancial objectives. This paper investigates the influence of wealth concerns and moral concerns on individual investors' decisions to invest responsibly. We conduct a unique natural field experiment of investors in an online banking context, wherein we frame responsible investment with regard to either wealth or morality and study investors' subsequent behavior. We find that wealth framing is more effective than moral framing for both information search and investment behavior. Our study contributes to the literature by providing real-life insight into how prosocial decision making in financial markets can be promoted.

Keywords: behavioral economics; field experiment; household finance; investor behavior; socially responsible investment

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1. Introduction

Socially responsible investment (SRI) is increasingly prevalent in financial markets (see, e.g., Barber 2007, Eurosif 2012, Hong and Kostovetsky 2012, Renneboog et al. 2012). SRI refers to investments that are designed to yield the highest possible risk-adjusted financial return while also taking into account social, ethical and/or environmental concerns (Sandberg et al. 2009, Derwall et al. 2011). For distributors of financial products, the duality of financial and ethical objectives in SRI presents a challenge: in order to market responsible investment products successfully, there is a need to understand how investors weigh wealth and moral concerns.

The starting point for this study was a Norwegian bank's desire to understand investors' preferences for responsible investment. The bank was in the process of introducing an ethical labeling system for all the mutual funds it distributed, but it needed more knowledge about what drives responsible investors. By conducting a natural field experiment during the bank's introduction of the labeling system, we offer insight into the managerial question: What do investors really want? (see Statman 2011).

As a theoretical portal to our study, we use the Levitt and List (2007) model of utility with wealth and morality. This models utility maximization as combining wealth and moral concerns, and distinguishes between benefits and costs related to each of them. For responsible investment, wealth concerns capture the individual's tendency to be motivated by the highest possible risk-adjusted financial return (see Markowitz 1952). Investors may thus see responsible

investment as an opportunity for equivalent return at relatively lower risk or higher returns for the same level of risk compared with other funds (see Beal et al. 2005). Moral concerns capture the individual's tendency to be motivated by attaining moral benefits or avoiding moral costs. Examples of such concerns are status, the ability to act in accordance with one's beliefs and values, and the ability to contribute to the well-being of others (see Meier 2007). Investors may thus see responsible investment as an opportunity to enhance one's status, to express a prosocial lifestyle or to achieve prosocial goals.¹

We aim to investigate how wealth concerns and moral concerns influence an individual investor's decision to invest responsibly. To do so, we measure differences in investment behavior after the framing of the decision as related to either wealth or morality. It is well established that framing information differently can systematically affect the actions decision makers subsequently take (Dunegan 1993, p. 491; Markovitz et al. 2011).² Consider the following analogy. One is

¹ The combination of wealth and morality concerns is mirrored in the literature on prosocial and proenvironmental consumer choice. For instance, Griskevicius et al. (2010) find that status concerns drive proenvironmental purchases, while Goldstein et al. (2008) find that social norms drive proenvironmental consumer behavior. In contrast, Gallagher and Muehlegger (2011) find that well-designed and well-communicated financial incentives promote proenvironmental purchases.

² For instance, Brown et al. (2008) have demonstrated that when consumers evaluate annuity products, annuities are less attractive when they are framed as "investments" than when they are framed as "consumption" (see also Brown et al. 2016).

faced with the decision of whether or not to purchase an electric car. The decision could be considered in (at least) two ways. The decision could be framed as an economic one and, thereby, highlight economically relevant issues, e.g., electric cars have superior fuel economy; electric cars qualify for an income tax credit; and electric cars have free parking. Alternatively, the decision could be framed as primarily an environmental issue, e.g., owners of electric cars contribute less to global warming; and electric cars use renewable materials and energy. The mechanism at play is that providing potential buyers with either economic or environmental information may lead them to consider the decision as being primarily either economic or environmental. This opens up a potential avenue for experimental investigation by comparing the effectiveness of each of the two decision frames.

The context of our investigation is a natural field experiment of investors in an online bank.³ We were allowed to design our experiment as part of the online communication of the Norwegian bank *Skandiabanken* during the bank's implementation of an ethical labeling system for mutual funds.⁴ The bank labeled all the funds it distributes as either responsible ("green"), neutral, or nonresponsible ("red"). We randomly assigned 140,000 investors into two groups and provided them with differently framed information. We thus constructed two experimental groups: *wealth-frame investors*, who received financially framed information; and *moral-frame investors*, who received morally framed information. In addition, we constructed a control group of 50,000 investors who were not subject to the treatment. We investigated differences in investors' behavioral responses following the framing.⁵ We measure the responses both for *information search* (measured by the number of clicks from an email newsletter to a website with additional information about responsible investment) and for *investment behavior* (measured by changes in the investors' mutual fund portfolios). Hence, in our setting, the effectiveness of financial and moral framing, respectively, of responsible investment serves as a measure of how investors' dual concerns influence their investment behavior.

³ Even though our sample comprises both customers who own mutual funds and those who do not, we henceforth refer to all customers as "investors."

⁴ The details of the labeling system are outlined in the experimental design section below.

⁵ In a similarly designed field experiment on labor force participation, Liebman and Luttmer (2011) find that after providing one randomized group with relevant information about Social Security, the labor force participation of this group increased by 4% relative to the control group. However, in our design, randomized groups receive two different types of information, and we measure the effectiveness of the treatments compared with the control group.

Numerous studies have assessed the performance of SRI funds (see, e.g., Bollen 2007; Kempf and Osthoff 2007; Renneboog et al. 2008, 2009; Hong and Kacperczyk 2009). However, fewer studies have investigated the dual nature of investor motives—the combined desire for financial returns and non-wealth returns such as moral benefits and status. Prior lab experiments have suggested that moral or value-expressive benefits are of primary concern to responsible investors (Webley et al. 2001, Statman 2004, Beal et al. 2005, Glac 2009, Barreda-Tarrazona et al. 2011). Furthermore, Bollen (2007) finds that investors are more loyal to poorly performing SRI funds than to poorly performing regular funds, which suggests that investors emphasize morality. Finally, Hong and Kacperczyk (2009) find that social norms have an impact on investment decisions, whereas Hong and Kostovetsky (2012) find that there is a relationship between investors' political values and their inclination to invest responsibly. Taken together, this suggests that morality matters for investment behavior.

However, our results show that wealth framing is more effective than moral framing in making investors engage in responsible investment. We find that wealth-frame investors click 13% more often and buy 21% more green funds than do moral-frame investors, and both experimental groups engage more in responsible investment than do investors in the control group. Our study thus shows that wealth concerns are primary to investment behavior, but that both wealth and morality influence the decision to invest responsibly.

Our contribution is at least twofold. First, we provide insight into actual prosocial behavior in financial markets, which is valuable because of the economic and societal significance of those markets (see Hong and Kacperczyk 2009). When investors are faced with the dual nature of responsible investment products, they act with both brain and heart, but wealth concerns remain primary to the decision. Second, our findings have practical implications for financial institutions that design and market responsible investment products and for policy makers who may aim to promote such investment. Individual investors should be provided with financially sound arguments for investing responsibly.

The remainder of the paper is structured as follows. First, we outline our theoretical framework. Second, we account for our experimental design. Third, we present our results. Finally, we draw conclusions.

2. Theoretical Framework

The Levitt and List (2007) model distinguishes between two broad categories of benefits (and, conversely, costs) that apply to responsible investors:

financial benefits and benefits related to morality. Levitt and List model an individual i whose utility U is additively separable into utility from wealth benefits, W , and from moral benefits (or the absence of moral cost), M . The utility function for individual i is

$$U_i(a, v, n, s) = W_i(a, v) + M_i(a, v, n, s).$$

The wealth component, W , is a function of the choice of action, a , by the individual. Furthermore, it is a function of the stakes or the monetary value, v , of the choice. The higher the monetary value, the greater the choice affects W . On its own, the wealth component, W , represents a pure wealth-maximizing choice, that is, the investors aim to maximize their risk-adjusted returns (see Markowitz 1952).

The moral component, M , also depends on the choice of action, a . Again, the monetary value, v , of the choice influences M . In the model, the financial externality of action a , which influences the moral benefit or cost of the action, increases with higher stakes v . There may also be social norms for or against the action, which are denoted n . The stronger the norm, the higher n is, thereby increasing the moral benefit or cost. Finally, the moral payoff is influenced by the extent to which the action is scrutinized, which is denoted s . Generally, the moral benefit or cost increases with higher levels of s .

In our setting, we can contrast buying green funds (choice of action $a = g$) to buying red funds (choice of action $a = r$). For the wealth component, the stakes v of both choices reflect the investment's payoff. For $a = g$, the externality in the moral component M is positive; thus, the moral benefit increases with higher v . For $a = r$, the externality is negative, and thus the moral cost increases with higher v . For $a = g$, the stronger the social norm n for investing responsibly, the more the moral benefit increases. Conversely, for $a = r$, the stronger the social norm n against investing in nonresponsible funds, the more the moral cost increases. Finally, for $a = r$, if there is scrutiny, s , by others, the moral cost increases. If scrutiny is present for $a = g$, there may be a moral cost due to the impression that the person is acting responsibly for reputational concerns. In this case, the potential moral benefit of investing responsibly could be offset by the mixed signal of the behavior. In the following, we account for how our experimental design measures the components used in the Levitt and List model.

3. Experimental Design

3.1. The Experimental Setting

Ideally, an empirical investigation of financial decision making should be conducted in an actual investment setting, without losing control over the

studied behavior. To obtain this combination of realism and control, we carried out a field experiment in an online banking setting.⁶ Field experiments are increasingly used to explore economic phenomena (see, e.g., Harrison and List 2004, List 2006, Alevy et al. 2007, Levitt and List 2007, Benz and Meier 2008, Card et al. 2011). Our experiment is a *natural field experiment*, because the environment is one where the subjects naturally undertake the studied behavior and where the subjects do not know that they are in an experiment (Harrison and List 2004).

Our field experiment was carried out in the Norwegian bank Skandiabanken (<http://www.skandiabanken.no>)—an online retail bank with several hundred thousand customers. It offers a wide range of services in transactions, lending, saving, money market accounts and insurance, and distributes mutual funds online. The funds are managed by other financial institutions, i.e., Skandiabanken does not manage its own funds.

The setting for our experimental study was Skandiabanken's implementation of a system for the ethical labeling of mutual funds. Skandiabanken classified all of its mutual funds into three categories based on the degree to which ethical concerns are taken into account in the design and management of the mutual funds. The mutual funds offered to investors remained the same as before, but new information about the mutual funds' ethical qualities was provided alongside traditional financial information. Hence, the ethical labeling implied a reclassification of existing investment products, rather than the addition of novel products.

The labeling system was designed as follows. Three levels of ethical quality were distinguished, and each given a symbol. First, the "ethically problematic" mutual funds were labeled with a red warning sign. In Figure 1, the mutual fund *BlackRock Continental European Flexible* is labeled with the red warning sign. This indicates that the fund includes investments that investors *might* find ethically problematic. The investor can retrieve additional information about why the fund is labeled red by clicking the red warning sign. Second, the neutral funds were not labeled, i.e., they did not have a symbol. For instance, *Fidelity Japan Advantage* in Figure 1 is classified as neutral. This indicates that the fund is not seen as problematic from an ethical point of view, and nor does it have a responsible profile or ethical focus. Third, the

⁶ Conducting field experiments in collaboration with businesses is an approach described as "particularly attractive" for future research by Levitt and List (2009, p. 15), who add: "We envision that rapid growth will occur in this area, both as firms realize how field experiments can help their business, and as academics determine how to effectively foster productive win-win relationships with firms."

Figure 1 (Color online) Excerpt from Skandiabanken's List of Mutual Funds (Edited with English Headings)

Fund name	Ethical labeling	Nav	1d %	1u %	1m %	6m %	1 år %	Morningstar Rating ▼
Average:			0.1	-0.8	-1.5	-0.9	5.3	
BlackRock Continent Europe Flexible		12.41 EUR	0.9	0.8	-0.1	4.1	12.6	★★★★★
Danske Invest Global Emerging Marke...		491.88 SEK	0.9	-0.2	-3.1	0.2	8.1	★★★★★
Danske Invest Global Emerging Marke...		225.43 SEK	-0.6	1.2	0.1	3.3	17.0	★★★★★
Danske Invest India A		286.66 SEK	1.5	-0.4	-2.4	-2.6	5.5	★★★★★
Delphi Europe		1 562.43 NOK	0.4	-0.8	-0.8	-3.5	0.7	★★★★★
DnB Telecom		86.16 NOK	0.7	0.1	-1.5	11.4	12.4	★★★★★
East Capital Baltikum		42.03 SEK	0.5	-0.7	-1.1	6.3	8.9	★★★★★
Fidelity Global Telecommunications		8.29 EUR	0.6	-0.5	-3.5	12.9	7.9	★★★★★
Fidelity Japan Advantage		15 378.00 JPY	0.1	-3.6	-5.1	-4.7	-1.8	★★★★★
Franklin European Growth		10.91 EUR	1.1	1.2	-0.5	7.0	11.1	★★★★★

Source. Used with permission from Skandiabanken.

responsible funds were labeled with a green leaf. This category comprised mutual funds that were actively engaging in an SRI approach (for instance, the inclusion or exclusion of funds based on ethical criteria; so-called positive and negative screening, respectively).⁷ In Figure 1, *Delphi Europe* is classified in the green category. At the time the labeling system was introduced, the bank offered 468 mutual funds, of which 35 were labeled green, 284 were labeled neutral and 149 were labeled red.

Table 1 presents summary statistics for the two experimental groups. Panel A shows statistics for all investors who received the email. In panels B and C, we split the sample into investors who owned mutual funds at the start of the experiment and those who did not. When we compare owners with nonowners, we find that mutual fund owners are younger, wealthier and have purchased more products (of all varieties) in the bank. To assess the randomization, we compare the statistics for the two experimental groups: wealth-frame investors and moral-frame investors. The randomization has been successful, as indicated by the small discrepancy in the means in each of the columns.

3.2. Details of the Experimental Design

Our experimental treatment relates to the information provided to investors about the new labeling system. This was the first time the investors received information about responsible investment from the bank. Thus, we influenced the initial information made available to investors. At the introduction of the labeling system, all the investors who subscribed to the email newsletter received this information therein.

⁷ In fact, the green category comprises two levels of “greenness,” represented by one green leaf and two green leaves, respectively. Both of these categories fall within the definition of SRI. However, the number of funds in the “two-leaves” category and the trading activity in those funds are negligible. Therefore, we treat these two categories as a single “green” category. Our results are also robust when distinguishing between the funds that are labeled with one and two green leaves, respectively.

We designed two versions of the newsletter to create two experimental groups. The information was tailored to frame the decision financially (i.e., the wealth component) and morally (i.e., the moral component), respectively. In addition, we constructed a control group of 50,000 investors who did not receive the newsletter, and therefore were subject to neither the wealth frame nor the moral frame. In each newsletter, there was a link to a website with more information about responsible investment. The websites were customized in a way that was consistent with the framing. Figure 2 shows the wealth treatment, and Figure 3 shows the moral treatment. On the left-hand side of each figure is an excerpt from the newsletter, and on the right-hand side is an excerpt from the customized website. The text inside the red squares is the manipulated information.⁸

All the information provided to investors was relevant and reliable, i.e., both newsletters included accurate information about the investment product. However, it differed with respect to which aspects of responsible investment were emphasized. In designing the two treatments, we attempted to attain similar information quality, even though the type of information in the two treatments differed somewhat. For instance, appeals to moral concerns may often be based on “softer” types of information than appeals to wealth concerns (see Petersen 2004). To compare the information quality of the two treatments, we conducted a randomized experimental survey on a sample of Skandiabanken customers ($n = 201$). The results showed no significant differences with respect to the novelty (Cox and Cox 2002), relevance (Klar 1990), or believability (Beltramini 1982) of the information in the newsletters (see the appendix). This suggests that the information quality in the two treatments

⁸ We translated this text from Norwegian to English. However, the text that does not pertain to socially responsible investments is reprinted in Norwegian. This text was similar in both versions.

Table 1 Summary Statistics

	Number of observations	Female (%)	Age	Net wealth	Number of unique products in the bank	Number of mutual funds
Panel A: All investors						
All investors	142,073	41.0	34.9	44,701	3.03	0.45
Wealth-frame investors	71,037	41.1	35.0	44,399	3.03	0.46
Moral-frame investors	71,036	40.9	34.9	45,003	3.03	0.44
Panel B: Mutual fund owners						
All investors	13,149	28.0	34.7	64,192	6.28	4.84
Wealth-frame investors	6,644	27.8	34.7	64,352	6.28	4.89
Moral-frame investors	6,505	28.2	34.7	64,028	6.29	4.79
Panel C: Mutual fund nonowners						
All investors	128,924	42.3	36.6	42,713	2.70	0
Wealth-frame investors	64,393	42.5	36.6	42,341	2.69	0
Moral-frame investors	64,531	42.2	36.6	43,085	2.70	0

Notes. The table presents summary statistics for our sample at the start of the experiment. We report the means of the variables. Net wealth is the total balance of all accounts, including any deductions for negative balance due to a high mortgage or credit card debt. Unique products in the bank refer to the total number of different products in the bank. Mutual funds refer to the number of different mutual funds owned by the investor at the start of the experiment.

is comparable; however, the results should be interpreted prudently.⁹

In the wealth treatment, responsible investment was framed as a financially attractive investment opportunity. In light of the Levitt and List (2007) model, this treatment corresponds to influencing an investor's perception of payoff, v , in the wealth component. In the moral treatment, responsible investment was framed as an opportunity to use one's investments to contribute to a just and sustainable economy by having a socially conscious attitude to investment. Hence, this treatment corresponds to influencing both an investor's perception of the positive externality that increases with higher v and the triggering of prosocial norms n .¹⁰

We recorded the type of newsletter sent to each investor and can, thus, measure the relationship between the different treatments and subsequent behaviors. Due to randomization, we can interpret differences in the dependent variables (i.e., information search and investment behavior) between groups as resulting from the treatment. We measure the dependent variables as follows. Information search is measured by the number of clicks on the links in the newsletters. Investment behavior is measured as trading activity in the funds, and was recorded immediately before and one month after the implementation of the labeling system.

There are some limitations in our experimental design. First, we were not allowed to make a control group within the sample of investors who received

newsletters, because the bank was reluctant to discriminate against a customer group by not providing them with adequate information during the introduction. This may pose a threat to our design, because we cannot measure the counterfactual directly. Therefore, we approximate the counterfactual by constructing two different control groups. The first control is a between-subject design, i.e., it compares the experimental groups with a different group of subjects. It consists of 50,000 investors randomly sampled from those investors who did not receive the newsletter. Not receiving the newsletter is the default choice. Thereby, the comparison is investors who are not subject to the framing. The second control is a within-subject design, i.e., it compares the difference between two different actions for the same investors. We compare the likelihood of buying a green fund given that you also bought a neutral fund, since it is likely that neutral trading is less influenced by the framing. This allows us to distinguish between any possible general effect across trading in all funds and the particular treatment effect on trading in green funds.¹¹

Constructing control groups may be problematic with regard to selection bias. For the within-subject comparison, this is not a problem because all the investors in the experimental groups are randomized. The potential problem relates to the between-subject comparison, because there may be relevant systematic differences between the subjects who are treated and those who are not. We first investigate

⁹ It should be noted that the survey has a fairly small sample size. The differences between the means of the two treatments are not significant, but for seven of the nine items in the survey the difference is positive (Q2 and Q3 are reverse scored).

¹⁰ The scrutiny factor, s , in the moral component is arguably not relevant in the present study, because investment decisions are made in the privacy of the online bank.

¹¹ In addition, our experimental design should ideally allow us to compare the behavior of investors in this setting with that of a control group in a setting without SRI labeling. This would allow us to investigate whether investors' responses to the treatment would be different in a setting where SRI was absent. Such an option did not exist for our experimental design, because all funds are labeled according to the labeling system, and the bank wanted all customers to be introduced to the labeling system at the time of the implementation.

Figure 2 (Color online) Wealth Treatment—Newsletter and Website



skandia : banken *Sparing, fond og aksjehandel*
- gir deg mer

Dear customer

We introduce ethical labeling of mutual funds

In your web bank, you can now see which funds that have a positive ethical profile, and which funds that invest in companies many people consider to be socially irresponsible

This information may be useful when you make your decisions on saving. Mutual funds with a positive ethical profile have in a number of studies also shown to perform well financially

[Read more about ethical labeling...](#)

Spørsmål om sparing?

Kontakt våre privatekonomiske rådgivere gratis:

810 01 001
sparing@skandiabanken.no

Fakta om fondshandel i Skandiabanken

- * Vi har over 400 fond
- * Vi har fond fra 26 ulike forvaltere
- * Fond fra kjente forvaltere som Skagen, Holberg, Odin, Storebrand, DNB NOR og KLP.
- * Ingen kjøpsgebyrer
- * Ingen salgsgebyrer
- * Lavt minstebeløp
- * God oversikt i nettbanken
- * Fondsrating fra Morningstar
- * Gratis rådgivning

Du kan samle dine fond i nettbanken

Har du fond andre steder enn i Skandiabanken, og ønsker å ha full oversikt i nettbanken?

Det er mulig å flytte fondene dine til oss uten at fondsandeler selges. Og uten at det får skattemessige konsekvenser for deg.



Etisk merking - ansvarlig sparing

Socially responsible investment

In your online bank, you can now see which mutual funds invest in companies that are considered to be ethically unacceptable or questionable, and which mutual funds have a positive ethical profile.

We have now introduced ethical labeling of mutual funds, which makes it easier for you to make conscious saving choices. With this approach, we intend to take social responsibility and to promote ethical investments.

Good business

A number of studies have shown investments in mutual funds that have a positive ethical profile to have high financial performance. A possible explanation to their good returns could be that socially responsible companies are well-run.

Socially responsible companies are often in a position to have a long-term orientation. The risk of reputational crises is lower for companies that act responsibly. Moreover, a company that for instance has an above-average concern for environmental issues may have lower costs due to better practices for resource usage and waste. Environmentally friendly products also provide the opportunity for higher prices and thus added profits.

Investments for a better future

High future returns depend on a sustainable development in economic, environmental and social sense. Therefore, investments in socially responsible mutual funds is an investment in the companies of the future.

If you want to buy ethically labeled funds - [see our selection of funds](#)

Logg inn og spar i fond

Source. Used with permission from Skandiabanken.

Figure 3 (Color online) Moral Treatment—Newsletter and Website



skandia : banken *Sparing, fond og aksjehandel*
- gir deg mer

Dear customer

We introduce ethical labeling of mutual funds

In your web bank, you can now see which funds that have a positive ethical profile, and which funds that invest in companies many people consider to be socially irresponsible

This information may be useful when you make your decisions on saving. By investing in socially responsible mutual funds, you can also contribute to a just and sustainable economy

[Read more about ethical labeling...](#)

Spørsmål om sparing?

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810 01 001
sparing@skandiabanken.no

Fakta om fondshandel i Skandiabanken

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- * Ingen salgsgebyrer
- * Lavt minstebeløp
- * God oversikt i nettbanken
- * Fondsrating fra Morningstar
- * Gratis rådgivning

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Det er mulig å flytte fondene dine til oss uten at fondsandeler selges. Og uten at det får skattemessige konsekvenser for deg.



Etisk merking - ansvarlig sparing

Socially responsible investment

In your online bank, you can now see which mutual funds invest in companies that are considered to be ethically unacceptable or questionable, and which mutual funds have a positive ethical profile.

We have now introduced ethical labeling of mutual funds, which makes it easier for you to make conscious saving choices. With this approach, we intend to take social responsibility and to promote ethical investments.

Money moves the world

By investing in socially responsible funds, you can contribute to a just and sustainable global economy, and counteract irresponsible business practices like child labor, corruption and grave pollution. Socially responsible investments are an effective strategy for influencing corporate behavior in a responsible direction.

Savings influence business

By not investing in funds labeled with a red warning sign, you avoid investing in companies that many people consider to be irresponsible. Experience shows that when large funds (like the Norwegian Petroleum Fund Global) divest from such companies, numerous other fund managers follow suit. This leads many companies to change their behavior in order to avoid punishment in the marketplace.

You can make a difference

When you invest in funds that are labeled as green, your investment goes to funds that have made assurances that your money will not support child labor, corruption, grave pollution or the production of controversial products like illegal weapons and tobacco.

By having a conscious attitude towards your savings and the funds in which you invest, your savings can contribute to promote responsible business practices in Norwegian and international business.

If you want to buy ethically labeled funds - [see our selection of funds](#)

Logg inn og spar i fond

Source. Used with permission from Skandiabanken.

the potential for selection bias by comparing available sociodemographic data. We found that mean age and gender distribution are similar in the two samples (experimental groups: 34.9 years, 41.0% female; control group: 35.0 years, 44.1% female). Along these dimensions, the treated and nontreated investors are thus very similar. We also compared the financial characteristics of investors in the experimental groups with those in the control group at the start of the experiment. The net wealth of investors (as defined in Table 1) in the control group (NOK 52,580) was somewhat higher than that of the investors in the experimental groups (NOK 44,701). Along this dimension, the treated and nontreated investors differ somewhat. However, this difference is arguably less problematic than if nontreated investors had lower net wealth than treated investors, since that could have suggested that the lower trading activity in green funds in the control group was because of these investors being less financially sophisticated or more financially constrained. Based on the available data, we assume that the potential for selection bias is modest.

Second, it appears that newsletters are a somewhat weak informational cue, because relatively few investors in both groups click for more information (see Figure 4 in the Results section). According to Skandiabanken, the click rate for this newsletter is comparable to the average rate of clicks in their newsletters. It would have been desirable to provide stronger informational cues to investors; however, in the experimental setting of the online bank, the newsletter was our only means of communicating customized information to the different experimental groups.

The third limitation of our study relates to information provision. While we had considerable control over the information provided by the bank, the field experiment did not allow us to control the additional information search carried out by investors prior to investment behavior. However, when investigating the clicks of investors, we found that investors who clicked for more information did so relatively soon after receiving the newsletter (see Figure 5 in the Results section). Because additional information is interpreted in light of how the decision is initially framed (Weick 1979), a further information search after reading the initial information should not, however, completely undermine the effect of the framing. Regardless, the remaining difference would arguably have been larger if we could have completely controlled the provision of information.

Finally, because our field experiment was carried out in a Norwegian bank, a question arises with regard to generalizability. However, any natural field experiment needs to be carried out in some specific setting, even though this may limit the degree to which results can be extrapolated to other settings

(see Levitt and List 2007). Generally, the criteria used for designing SRI funds in Norway are similar to the criteria used in the rest of the European market (except France, where the so-called “best-in-class” approach is widespread). According to Eurosif (2012), total SRI assets under management in Norway are very high, if we include Norway’s sovereign wealth fund (the Norwegian Government Pension Fund Global). This fund represents approximately 80% of Eurosif’s (2012) estimate of €574.1 billion SRI assets under management (AUM) in Norway. However, if we exclude the sovereign wealth fund, the share of SRI AUM in Norway is comparable to the European average.

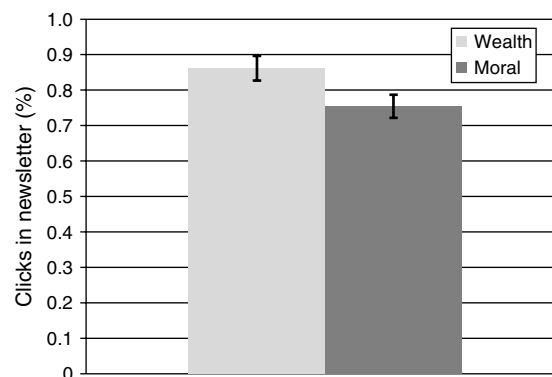
4. Results

4.1. Main Results

Our study compares the behavioral response to the different treatments for wealth-frame and moral-frame investors. We investigate this with regard to information search and investment behavior. First, Figure 4 shows the results for information search, i.e., clicks for more information in the newsletter. Error bars are standard errors of the mean. We found that 0.81% of all investors clicked for further information about responsible funds. More interestingly, we found that 0.86% of the wealth-frame investors clicked, whereas 0.76% of the moral-frame investors clicked. This shows that wealth-frame investors clicked 13% $\{[(0.86/0.76) - 1] \times 100\}$ more than the moral-frame investors clicked. The difference is statistically significant at the 5% level. We use *t*-tests to compare means.

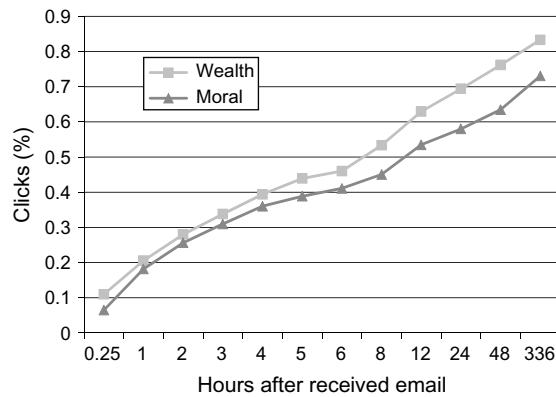
We also measure the time at which an investor clicked for further information. Thereby, we can investigate how the wealth and moral treatments develop over time. In Figure 5, the *x* axis indicates the number of hours after receiving the newsletter—with an upper limit of two weeks. We found that

Figure 4 Percentage of Investors Clicking for Further Information



Notes. The figure shows the percentage of investors clicking for further information in the newsletter for the wealth and moral treatment groups, respectively. Error bars are standard errors of the mean.

Figure 5 Accumulated Percentage of Investors Clicking for More Information



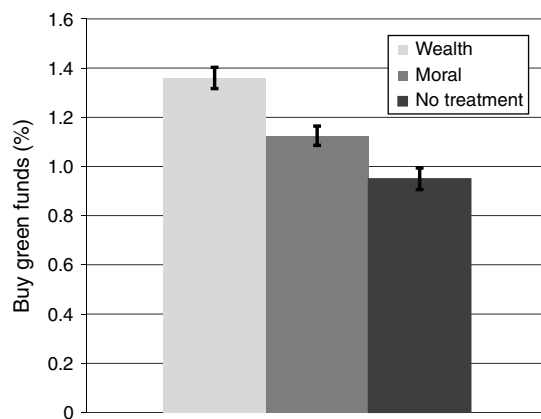
Notes. The figure shows the accumulated percentage of investors clicking for more information in the newsletter for the wealth and moral treatment groups, respectively. The x axis shows the number of hours after receiving the newsletter.

the wealth treatment remains stronger than the moral treatment throughout the period.

The second stage of our investigation is related to investment behavior. Figure 6 shows that 1.24% of all investors bought one or more green funds. More interestingly, we find that 1.36% of the wealth-frame investors bought a green mutual fund, whereas 1.12% of the moral-frame investors bought a green mutual fund. This shows that wealth-frame investors bought 21% $\{[(1.36/1.12) - 1] \times 100\}$ more green funds than did moral-frame investors. The difference is statistically significant at the 1% level.

Our results reveal that there is a significant difference in both information search and investment behavior following the experimental treatment. The wealth framing is most effective both for information search and for investment behavior; however, it is stronger for the latter. The Levitt and List (2007)

Figure 6 Percentage of Investors Buying Green Funds



Source. The figure shows the percentage of investors buying green funds in the wealth and moral treatment groups, as well as in the untreated group. Error bars are standard errors of the mean.

model suggests that with increasing stakes, v , wealth concerns generally increase in importance relative to moral concerns. Thus, the results are in line with the model because stakes are higher for buying than for clicking.

To investigate whether the behaviors of the investors in the experimental groups are different from the baseline behavior, we conduct two control analyses. The first control is a between-subject analysis based on a sample of investors ($n = 50,000$) who did not receive the newsletter, and thus were not subject to the treatment. As discussed above, the investors in this control group have comparable characteristics to the treated investors; however, we cannot consider this an entirely random sample. The percentage of treated and nontreated investors buying green funds is shown in Figure 6. We find that the fraction of investors in the control group who buy a green mutual fund is 0.95%. The differences between each of the experimental groups and the control group are significant at the 1% level.

The second control is a within-subject analysis. We compare the likelihood of buying a green fund given that investors also bought a neutral fund. This allows us to distinguish between any possible general effect across trading in all funds and the particular treatment effect on trading in green funds. In Table 2, we show the conditional treatment effect. The first column shows the percentage of investors that buy green funds conditional on whether or not they buy a neutral fund. The interesting question is whether the difference between the wealth treatment and the moral treatment holds also for investors who buy a neutral fund. As we can see from Table 2, this difference is 2.7 percentage points, and statistically significant at the 1% level. This suggests that even when correcting for any general effect, there is still a substantial treatment effect.

4.2. Further Analyses

In addition to the main findings outlined above, we conduct three additional analyses that shed light on the relationship between the framing and investment behavior. First, we investigate the interaction effect between information search and investment behavior, i.e., whether investors who click on the newsletter

Table 2 Percentage of Investors Buying Green Funds Conditional on Buying Neutral Funds

	Percentage of investors buying green funds				
	All (%)	Wealth (%)	Moral (%)	Diff. (%)	<i>t</i> -value
Buy neutral	26.51	27.82	25.13	2.69	$t = 10.81$
Not buy neutral	0.12	0.14	0.10	0.03	$t = 0.63$

Note. The table presents the percentage of investors who buy green funds conditional on whether or not they also buy neutral funds.

Table 3 Percentage of Investors Buying Green Funds Conditional on Clicking for Information

	Percentage of investors buying green funds				
	All (%)	Wealth (%)	Moral (%)	Diff. (%)	<i>t</i> -value
Clicked	6.71	7.68	5.60	2.08	<i>t</i> = 3.06
Not clicked	1.30	1.40	1.20	0.21	<i>t</i> = 3.36

Note. The table presents the percentage of investors who buy green funds conditional on whether or not they click for further information in the newsletter.

display different investment behavior to those who do not. Second, we investigate whether the revealed treatment effect for trading in green funds is also mirrored in investors selling their red funds. Finally, we investigate whether there is an effect of market experience on investment behavior.

As shown in Table 3, the investigation of the interaction effect between clicks and trades shows that 6.71% of investors who clicked for more information bought green mutual funds, whereas 1.30% of investors who did not click for more information bought green mutual funds. The difference is significant at the 1% level. Among investors who clicked for more information, 7.68% of wealth-frame investors bought green funds, while 5.60% of moral-frame investors bought green funds. The difference is statistically significant at the 1% level.

Table 3 shows that wealth-frame investors are more likely to buy green funds, even if we condition on whether or not they have clicked in the newsletter. However, the difference is larger for investors who click $\{[(7.68/5.60) - 1] \times 100 = 37.1\%$ than for investors who do not click $\{[(1.40/1.20) - 1] \times 100 = 16.7\%$. It should be noted that the interaction effect between clicks and trades does not suggest causality. The result reveals that investors who click are more inclined to invest, while also suggesting that the same investors are more responsive to financial information.

Second, we compare our results for the buying of green funds with those for the selling of red funds. So far, we have assumed that the choice of action, *a*, in the Levitt and List (2007) model is buying green funds. An interesting question is whether there is a symmetrical relationship between buying green funds and selling red funds, because both choices reflect a “greening” of one’s portfolio, albeit by means of different actions.

Only 0.04% (or 60 investors) sold a red fund. We find that 0.05% of wealth-frame investors sold a red fund whereas 0.04% of moral-frame investors did so. The difference is not statistically significant at the 10% level. This could be due to a small sample of investors selling red funds. The result indicates that wealth-frame investors are 25% $\{[(0.05/0.04) - 1] \times 100\}$ more

likely than moral frame investors to sell red funds. We also conduct a difference-in-differences analysis between selling red funds and selling neutral funds. The result shows that for neutral funds, wealth-frame investors are 13% more likely than moral-frame investors to sell neutral funds. This is lower than the comparable percentage for red funds. However, due to the results not being statistically significant at conventional levels, we should interpret them prudently.

It seems surprising that the wealth component should increase in importance for selling, because one could expect stronger social norms *n* against owning red funds than against not owning green funds (see Levitt and List 2007). This would imply that selling a red fund could lower the moral cost for the investor. An explanation could be that sales are often initiated for reasons other than alternative purchases, for example, liquidity needs or tax reasons. Therefore, selling is arguably a decision that is less influenced by information than the decision to buy (Odean 1998, Grinblatt and Keloharju 2001).

Finally, we investigate if there is an effect of market experience on investment behavior. As demonstrated by List (2003, 2004), in some environments, market experience decreases deviations from acting in line with standard utility theory. However, Haigh and List (2005) conversely find that market experience does not have such effects among financial market professionals. We have attempted to capture the influence of market experience by comparing the trading behavior of those making a low number of trades, those making a moderate number of trades and those making a high number of trades, respectively. Thus, we use the number of trades during the experimental period as a proxy of market experience, as it is our best option to say something about market experience by means of our available data. Concretely, we compare the buying of green funds between three groups: (1) those who conduct one or two trades; (2) those who conduct three or four trades; and (3) those who conduct five trades or more.

As we see from Table 4, the wealth treatment is more effective irrespective of the number of trades. Based on this proxy of market experience, our results do not show an influence of market experience on the effectiveness of the treatments, which is in line with the findings in Haigh and List (2005).

5. Conclusion

Our findings shed light on how wealth and moral concerns influence the decisions of individual investors to invest responsibly, and we find that wealth is more important than morality. Investors with a wealth frame are more likely to: (1) search for further information and (2) invest responsibly than are investors with a moral frame. The fact that our

Table 4 Percentage of Investors Buying Green Funds Conditional on Number of Trades

	Percentage of investors buying green funds				
	All (%)	Wealth (%)	Moral (%)	Diff. (%)	<i>t</i> -value (%)
Traded 1 or 2 times	11.78	12.58	10.94	1.64	<i>t</i> = 5.02
Traded 3 or 4 times	37.13	38.94	35.15	3.78	<i>t</i> = 10.32
Traded 5 or more times	49.79	51.07	48.39	2.69	<i>t</i> = 4.94

Note. The table presents the percentage of investors who buy green funds conditional on the investors' number of trades during the experimental period.

findings are consistent for information search and investment behavior strengthens the plausibility of our results. Furthermore, investors in both experimental groups engage more in responsible investment than do investors in the control group.

Thus far, we have been cautious about interpreting our results in the light of theory. Here, we discuss the result based on the [Levitt and List \(2007\)](#) model. In doing so, we assume that revealed preferences have normative status, i.e., that the decisions made by investors represent their actual weighting of wealth and morality.¹² According to the Levitt and List model, the important characteristics of the investment setting are the stakes, v ; the norms n for or against the behavior; and the extent to which the behavior is subject to scrutiny, s . These characteristics depend on the choice of action, a , which, in our case, primarily relates to buying green funds ($a = g$).

In the case of buying green funds ($a = g$), high stakes v should suggest increased attention to the wealth component W , but, at the same time, increase the positive financial externality in M . The model does not specify the relative effect of higher stakes on W and M , but according to [Levitt and List \(2007, p. 157\)](#), we should expect that “as the stakes of the game rise, wealth concerns will increase in importance relative to fairness concerns.” Prior studies that were experimental surveys with low economic stakes ([Glac 2009](#), [Barreda-Tarrazona et al. 2011](#)) and field experiments in purchasing contexts where stakes were also low ([Goldstein et al. 2008](#), [Griskevicius et al. 2010](#)), find that moral concerns outweigh wealth concerns. However, in our experiment, stakes are higher, which suggests increased

importance of wealth concerns. This is supported by our results. It should be noted, however, that moral concerns still remain important, which is revealed in our results, and which follows the findings of studies in high-stakes settings where norms and values are demonstrated to influence investment decisions ([Bollen 2007](#), [Hong and Kacperczyk 2009](#), [Hong and Kostovetsky 2012](#)).

As outlined in the Introduction, the latter studies find that values and social norms associated with the ethicality of investments exert an influence on investment behavior ([Bollen 2007](#), [Hong and Kacperczyk 2009](#), [Hong and Kostovetsky 2012](#)). This suggests that, in addition to externalities that investors care about, there are also norms for investing responsibly that influence the behavior of investors. The fact that the moral-frame treatment in our study differs from the baseline supports this. However, the finding that the wealth frame outweighs the moral frame suggests that moral factors are less salient than the wealth concerns of investors.

Furthermore, the model suggests that scrutiny would increase moral benefits for buying green funds (and, conversely, increase moral costs for buying red funds). This would have made the moral component, M , more significant for the investment decision. Because investors in our study are not subject to scrutiny from others, there is no image concern (see [Ariely et al. 2009](#); see also [Gino et al. 2013](#)), i.e., the moral benefit of responsible investing decreases. Thus, the moral benefit rather relates to the investor's self-identity, i.e., the extent to which the investor is able to act in a manner that is consistent with his or her beliefs and values (see [Bénabou and Tirole 2006](#), [Meier 2007](#)). It is interesting to question to what extent the presence of scrutiny in the decision would have influenced the behavior of investors. In this respect, it can also be added that stimulating green investment by means of financial arguments could potentially lead to a crowding-out of any intrinsic motives for conducting such investment (e.g., [Frey and Oberholzer-Gee 1997](#), [Bénabou and Tirole 2006](#), [Ariely et al. 2009](#)). This implies that, in cases where it can be expected that investors have strong moral concerns, financial institutions need to consider if these can be undermined by exposure to wealth-framed advertisements. However, it should be noted that such messages could also lead to a crowding-in effect, since information suggesting that intrinsically motivated green investment is also financially sound could have an empowering ([Bénabou and Tirole 2003](#)) or supportive ([Deci and Ryan 2000](#)) effect that, in fact, could promote intrinsic motivation.

Is there also something that can explain the strength of the wealth component, W ? The relative effectiveness of the wealth frame does not imply that risk-adjusted returns are all that investors desire. Hence,

¹² It is noted that the revealed preferences of investors may not be identical to their normative preferences. [Beshears et al. \(2008\)](#) outline five factors that make revealed preferences likely to deviate from normative preferences. In our opinion, none of these factors constitutes a large threat to our study. To the extent that there is a threat to our study, it is that investment decisions are complex. This may lead to decision-making biases such as menu effects ([Rabin 1998](#)) and brand awareness effects (e.g., [Macdonald and Sharp 2000](#)).

there is more to the decision than what traditional finance theory would suggest. A reasonable interpretation is that investors struggle to correctly estimate the expected return and variance. This will make investors more receptive to financially relevant information, because such information may serve as “financial proof” that reduces their perceived parameter uncertainty. It is well documented that, in decision situations characterized by uncertainty, decision makers aim to reduce uncertainty by employing *proof strategies* (Rao et al. 2001, Cialdini 2007).¹³ Hence, such financial proof may similarly translate into higher perceived risk-adjusted return.

Our study takes an important step towards identifying what drives responsible investing. In future

research, it would be valuable to investigate further the specific factors in the two components W and M and the interaction between them. For instance, it would be possible to manipulate the perceptions of investors of the moral stakes at play by varying the psychological distance between the investment and the potential negative externalities thereof (see Liberman et al. 2007). Similarly, the manipulation of norms would be possible, for instance, by varying the extent to which the investors are informed about the moral standards followed by other investors.

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¹³ Imitation of the decisions of others, or social proof, is the most common type of proof strategy. We suggest that financial proof can be a surrogate for social proof when the possibility of viewing the behavior of others is absent. In such cases, acting on a perceived “consensus principle,” in this case attending to financially relevant information, can serve as a proof strategy.

Appendix. Experimental Survey

	Wealth	Moral	
Number of subjects	100	101	
Gender (% female shown)	48.0	31.7	
Mean age	51.8	52.1	
Questions			
Q1: This information about mutual funds is new to me. <i>Completely disagree—Neither/nor—Completely agree</i> [All scales are 1–7]	mean = 4.96, std. err. = 0.21	mean = 4.83, std. err. = 0.21	Diff. = 0.13, Pr($ T > t $) = 0.66
Q2: I assume that the information in this newsletter is well known to most of those who buy mutual funds. <i>Completely disagree—Neither/nor—Completely agree</i>	mean = 3.76 std. err. = 0.18	mean = 3.61 std. err. = 0.16	Diff. = 0.15, Pr($ T > t $) = 0.54
Q3: I am already aware of this information about mutual funds. <i>Completely disagree—Neither/nor—Completely agree</i>	mean = 2.84 std. err. = 0.21	mean = 2.72 std. err. = 0.18	Diff. = 0.12, Pr($ T > t $) = 0.67
Q4: Please indicate the degree to which the information provided was relevant for your evaluation of mutual fund products. <i>Not relevant at all—Neither/nor—Very relevant</i>	mean = 3.95 std. err. = 0.21	mean = 3.53 std. err. = 0.21	Diff. = 0.42, Pr($ T > t $) = 0.16
Q5: Please indicate the degree to which the information provided was useful for your evaluation of mutual fund products. <i>The information was of no use/the information was of great use</i>	mean = 4.06 std. err. = 0.21	mean = 3.79 std. err. = 0.20	Diff. = 0.27, Pr($ T > t $) = 0.35
Q6: To what extent is the stated information indicative of the quality of mutual funds? <i>Not at all—Neither/nor—Very much</i>	mean = 4.16 std. err. = 0.16	mean = 3.77 std. err. = 0.17	Diff. = 0.39, Pr($ T > t $) = 0.10
Q7: I find this information about mutual funds believable. <i>Completely disagree—Neither/nor—Completely agree</i>	mean = 4.61 std. err. = 0.13	mean = 4.37 std. err. = 0.14	Diff. = 0.24, Pr($ T > t $) = 0.21
Q8: I think that this information about mutual funds is trustworthy. <i>Completely disagree—Neither/nor—Completely agree</i>	mean = 4.47 std. err. = 0.13	mean = 4.22 std. err. = 0.14	Diff. = 0.25, Pr($ T > t $) = 0.20
Q9: This information about mutual funds seems reasonable. <i>Completely disagree—Neither/nor—Completely agree</i>	mean = 4.43 std. err. = 0.13	mean = 4.39 std. err. = 0.14	Diff. = 0.04, Pr($ T > t $) = 0.82

References

- Alevy JE, Haigh MS, List JA (2007) Information cascades: Evidence from a field experiment with financial market professionals. *J. Finance* 62(1):151–180.
- Ariely D, Bracha A, Meier S (2009) Doing good or doing well? Image motivation and monetary incentives in behaving prosocially. *Amer. Econom. Rev.* 99(1):544–555.
- Barber BM (2007) Monitoring the monitor: Evaluating CalPERS' activism. *J. Investing* 16(4):66–80.
- Barreda-Tarrazona I, Matallín-Saez JC, Balaguer-Franch MR (2011) Measuring investors' socially responsible preferences in mutual funds. *J. Bus. Ethics* 103(2):305–330.
- Beal DJ, Goyen M, Phillips P (2005) Why do we invest ethically? *J. Investing* 14(3):66–77.
- Beltramini RF (1982) Advertising perceived believability scale. Corrigan DR, Kraft FB, Ross RH, eds. *Proc. Southwest Marketing Assoc.* (Southeast Missouri State University, Cape Girardeau), 1–3.
- Bénabou R, Tirole J (2003) Intrinsic and extrinsic motivation. *Rev. Econom. Stud.* 70(3):489–520.
- Bénabou R, Tirole J (2006) Incentives and prosocial behavior. *Amer. Econom. Rev.* 96(5):1652–1678.
- Benz M, Meier S (2008) Do people behave in experiments as in the field? Evidence from donations. *Experiment. Econom.* 11(3):268–281.
- Beshears J, Choi JJ, Laibson D, Madrian BC (2008) How are preferences revealed? *J. Public Econom.* 92(8):1787–1794.
- Bollen NPB (2007) Mutual fund attributes and investor behavior. *J. Financial Quant. Anal.* 42(3):683–708.
- Brown JR, Kapteyn A, Mitchell OS (2016) Framing and claiming: How information-framing affects expected Social Security claiming behavior. *J. Risk Insurance* 83(1):139–162.
- Brown JR, Kling JR, Mullainathan S, Wrobel MV (2008) Why don't people insure late-life consumption? A framing explanation of the under-annuitization puzzle. *Amer. Econom. Rev.* 98(2):304–309.
- Card D, DellaVigna S, Malmendier U (2011) The role of theory in field experiments. *J. Econom. Perspect.* 25(3):39–62.
- Cialdini RB (2007) *Influence: The Psychology of Persuasion* (Harper Collins, New York).
- Cox DS, Cox AD (2002) Beyond first impressions: The effects of repeated exposure on consumer liking of visually complex and simple product designs. *J. Acad. Market. Sci.* 30(2):119–130.
- Deci EL, Ryan RM (2000) The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psych. Inquiry* 11(4):227–268.
- Derwall J, Koedijk KCG, Ter Horst JR (2011) A tale of values-driven and profit-seeking social investors. *J. Bank. Finance* 35(8):2137–2147.
- Dunegan KJ (1993) Framing, cognitive modes, and image theory: Toward an understanding of a glass half full. *J. Appl. Psych.* 78(3):491–503.
- Eurosif (2012) *European SRI Study 2012* (Eurosif, Brussels, Belgium).
- Frey BS, Oberholzer-Gee F (1997) The cost of price incentives: An empirical analysis of motivation crowding-out. *Amer. Econom. Rev.* 87(4):746–755.
- Gallagher KS, Muehlegger E (2011) Giving green to get green? Incentives and consumer adoption of hybrid vehicle technology. *J. Environ. Econom. Management* 61(1):1–15.
- Gino F, Krupka EL, Weber R (2013) Licence to cheat: Voluntary regulation and unethical behavior. *Management Sci.* 59(10):2187–2203.
- Glac K (2009) Understanding socially responsible investing: The effect of decision frames and trade-off options. *J. Bus. Ethics* 87(1, supplement):41–55.
- Goldstein NJ, Cialdini RB, Griskevicius V (2008) A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *J. Consumer Res.* 35(3):472–482.
- Grinblatt M, Keloharju M (2001) What makes investors trade? *J. Finance* 56(2):589–616.
- Griskevicius V, Tybur JM, Van den Bergh B (2010) Going green to be seen: Status, reputation, and conspicuous conservation. *J. Personality Soc. Psych.* 98(3):392–404.
- Harrison GW, List JA (2004) Field experiments. *J. Econom. Literature* 42(4):1009–1055.
- Haigh MS, List JA (2005) Do professional traders exhibit myopic loss aversion? An experimental analysis. *J. Finance* 60(1):523–534.
- Hong H, Kacperczyk M (2009) The price of sin: The effects of social norms on markets. *J. Financial Econom.* 93(1):15–36.
- Hong H, Kostovetsky L (2012) Red and blue investing: Values and finance. *J. Financial Econom.* 103(1):1–19.
- Kempf A, Osthoff P (2007) The effect of socially responsible investing on portfolio performance. *Eur. Financial Management* 13(5):908–922.
- Klar Y (1990) Linking structures and sensitivity to judgment-relevant information in statistical and logical reasoning tasks. *J. Personality Soc. Psych.* 59(5):841–858.
- Levitt S, List JA (2007) What do laboratory experiments measuring social preferences reveal about the real world? *J. Econom. Perspect.* 21(2):153–174.
- Levitt S, List JA (2009) Field experiments in economics: The past, the present, and the future. *Eur. Econom. Rev.* 53(1):1–18.
- Lieberman N, Trope Y, Stephan E (2007) Psychological distance. Kruglanski AW, Higgins ET, eds. *Social Psychology: Handbook of Basic Principles*, Vol. 2 (Guilford Press, New York), 353–383.
- Liebman J, Luttmer EFP (2011) Would people behave differently if they better understood Social Security? Evidence from a field experiment. NBER Retirement Research Center Paper NB09-01, National Bureau of Economic Research, Cambridge, MA.
- List JA (2003) Does market experience eliminate market anomalies? *Quart. J. Econom.* 118(1):41–72.
- List JA (2004) Neoclassical theory versus prospect theory: Evidence from the marketplace. *Econometrica* 72(2):615–625.
- List JA (2006) The behavioralist meets the market: Measuring social preferences and reputation effects in actual transactions. *J. Political Econom.* 114(1):1–37.
- Macdonald EK, Sharp BM (2000) Brand awareness effects on consumer decision making for a common, repeat purchase product: A replication. *J. Bus. Res.* 48(1):5–15.
- Markowitz HM (1952) Portfolio selection. *J. Finance* 7(1):77–91.
- Markovitz L, Cobb D, Hedley M (2011) Framing ambiguity: Insiders/outside and the successful legitimization project of the socially responsible fund industry. *Organization* 19(1):3–23.
- Meier S (2007) A survey of economic theories and field evidence on pro-social behavior. Frey BS, Stutzer A, eds. *Economics and Psychology: A Promising New Cross-Disciplinary Field* (MIT Press, Cambridge, MA).
- Odean T (1998) Are investors reluctant to realize their losses? *J. Finance* 53(5):1775–1798.
- Petersen MA (2004) Information: Hard and soft. Working paper, Kellogg School of Management, Northwestern University, Evanston, IL.
- Rabin M (1998) Psychology and Economics. *J. Econ. Lit.* 36(1):11–46.
- Rao H, Greve HR, Davis GF (2001) Fool's gold: Social proof in the initiation and abandonment of coverage by Wall Street analysts. *Admin. Sci. Quart.* 46(3):502–526.
- Renneboog L, Ter Horst J, Zhang C (2008) Socially responsible investments: Institutional aspects, performance, and investor behavior. *J. Banking Finance* 32(9):1723–1742.

- Renneboog L, Ter Horst J, Zhang C (2009) The price of ethics and stakeholder governance: The performance of socially responsible mutual funds. *J. Corporate Finance* 14(3):302–322.
- Renneboog L, Ter Horst J, Zhang C (2012) Money-flows of socially responsible investment funds around the world. Baker HK, Nofsinger JR, eds. *Socially Responsible Finance and Investing: Financial Institutions, Corporations, Investors, and Activists* (John Wiley & Sons, New York), 455–477.
- Sandberg J, Juravle C, Hedesström TM, Hamilton I (2009) The heterogeneity of socially responsible investment. *J. Bus. Ethics* 87(4):519–533.
- Statman M (2004) What do investors want? *J. Portfolio Management* 30(5):153–161.
- Statman M (2011) *What Investors Really Want: Discover What Drives Investor Behavior and Make Smarter Financial Decisions* (McGraw-Hill, New York).
- Webley P, Lewis A, Mackenzie C (2001) Commitment among ethical investors: An experimental approach. *J. Econom. Psych.* 22(1):27–42.
- Weick KE (1979) Cognitive processes in organizations. Staw B, ed. *Research in Organizational Behavior*, Vol. 1 (JAI Press, Greenwich, CT), 41–74.



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