# Pro-social Investors' Preferences when the Project's Risk and Return Vary: A Lab-in-the-Field Experiment*

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**Abstract**

Using an experiment based on Gneezy and Potters (1997), we studied investment preferences for Green and Brown projects with 131 financial professionals and 227 students. Our model gauged the subjects' project preferences from their investment allocations. When projects had equal returns, both professionals and students significantly preferred the Green project. However, unlike professionals, when the Green project was less profitable than the Brown one, students favored profitability over environmental concerns. The primary contribution of the article lies in identifying asymmetric pro-social preferences between financial professionals and students when projects' risk and return vary.

Keywords: experimental economics, behavioral finance, financial professionals, students, socially responsible investment.

**Declarations of interest:** none

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was validated by the ethical committee of the Center of Environmental Economics of Montpellier (University of Montpellier).

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Dimitri Dubois: Data curation; Investigation; Methodology; Software.

Rassul-Ishame Kalfane: Conceptualization; Roles/Writing - original draft

Marc Willinger: Conceptualization; Formal analysis; Methodology; Supervision.

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## 1 Introduction

The surge in socially responsible investment (SIF, 2020) underscores a shift in investment strategies, indicating that considerations beyond traditional risk and return metrics play a pivotal role. This evolving landscape introduces a dual focus on financial and ethical objectives, posing a challenge and prompting the imperative to delve into how investors navigate

the intricate balance between wealth accumulation and moral considerations.

Our research examines investment behavior with a specific focus on environmental considerations. Existing studies suggest that individuals' investment decisions are influenced by factors such as their trust in the economy (Guiso et al., 2004; Guiso et al., 2008), identification with a social group (Bauer and Smeets, 2015; Hong and Kacperczyk, 2009), or the environmental impact of an asset (Brodback et al., 2022; Crifo et al., 2015; Duchêne et al., 2022; Flammer, 2013; Tatarnikova et al., 2023; Duchene et al., 2023). Moreover, the literature on socially responsible assets suggests that they exhibit greater resilience than their less virtuous counterparts during economic downturns (Lins et al., 2017; Nofsinger and Varma, 2014; Henke, 2016). Another finding indicates that investors may willingly accept financial underperformance to align with their intrinsic social preferences and for social signaling (Riedl and Smeets, 2017). However, these results seem to contradict earlier findings. Døskeland and Pedersen (2016) observed that investors show a greater inclination to buy socially responsible assets when they receive an email praising the financial performance rather than the ESG impacts of these assets. Since the article by Riedl and Smeets (2017), there has been a limited number of papers utilizing experimental methodologies to specifically isolate the impact of project labels (Green, Neutral, or Brown) and their corresponding externalities (positive, neutral, or negative) on subjects' investment behavior. Notably, Bonnefon et al. (2022) and Brodback et al. (2022) have suggested that students tend to value projects with positive externalities, but these projects may experience price declines when their financial performance is poor.

In our study, we aim to explore further the dual nature of financial professionals' preferences—a combination of the desire for wealth and the aspiration to contribute to a better world—and compare them to those of students. To date, there has been no study that directly compares the pro-environmental investment behavior of financial professionals and students, as part of an investment project, combining a particularly straightforward theoretical and experimental approach. In realms beyond Corporate Social Responsibility (CSR), however, an extensive body of literature exists exploring behavioral differences between professionals and students. For instance, the study by Haigh and List (2005) reveals that traders exhibit higher myopic loss aversion than students. In contrast, research by Cohn et al. (2014) indicates that financial professionals may demonstrate higher levels of dishonesty compared to students. Additionally, in areas such as risk tolerance, trustworthiness, psychopathy, and competitiveness, finance professionals differ significantly from students (Holmen et al., 2023). Moreover, the ranking and tournament dynamics influence the behavior of underperforming professionals, whereas only tournaments affect the behavior of students (Kirchler et al., 2018). Other researchers have identified comparable behavioral patterns in both student and finance professional groups (Weitzel et al., 2020). These investigations predominantly explore subjects encompassing risk-taking, the genesis of financial bubbles, price forecasts, market speculation, along with the analysis of cognitive distortions and market rationality (for a contemporary and detailed review, see Huber and König-Kersting, 2022). Then, we anticipate observing distinct pro-environmental behaviors between financial professionals and students. This difference in behavior may be partially explained by the age disparity between the two groups. Existing literature, such as the study by Blake et al. (2015), demonstrates that inequity aversion tends to increase with age. Moreover, research by Van

Lange et al. (1997) indicates that prosocial behaviors tend to rise from early adulthood through middle adulthood and old age, a finding validated by more recent research from Matsumoto et al. (2016). Finally, the study by Van Lange et al. (1997) introduces two hypotheses—individual learning hypothesis and situational change hypothesis—to explain the effect of age on prosocial behaviors. The former suggests that individuals learn the positive effects of acting prosocially with accumulated life experiences, while the latter posits that the nature of social interactions changes with the social roles individuals play in their lives.

This article seeks to provide a thorough comparison between professionals' and students' preferences concerning socially (ir)responsible investments. The research questions are as follows: (1) What is the impact of project labels (Green, Neutral, or Brown) on financial professionals' and students' investment preferences, all other things being equal? (2) Do investors' preferences change when Green projects become less profitable than Neutral and Brown projects? (3) To what extent do the environmental preferences of professionals differ from those of students?

Several studies suggest that asset Environmental, Social, and Governance (ESG) characteristics influence individuals' behavior (Crifo et al., 2015; Duchêne et al., 2022;Flammer, 2013; Bonnefon et al., 2022). For instance, Bonnefon et al. (2022) found that students are inclined to invest more in an asset that contributes to a charity and, conversely, less in an asset that harms a charity. We aim to test this finding on a sample of financial professionals in addition to students, leading to Hypothesis 1:

**Hypothesis 1** *The Green label implies a higher asset preference than the Brown label for*

*financial professionals (and students) when projects' returns are equal.*

On the other hand, conventional economic theory suggests that investors seek to maximize profit (Fama, 2021). Therefore, we would anticipate that a less profitable Green project and a more profitable Brown project would influence the investment behavior of financial professionals and students. Additionally, a recent study indicates that students tend to invest less in a socially responsible project when it performs poorly financially (Brodback et al., 2022). We aim to examine these findings on a sample of financial professionals as well as students with Hypothesis 2.a and Hypothesis 2.b:

**Hypothesis 2.a** *Higher (lower) profitability increases (decreases) the preference of financial professionals for the asset and mitigates the label effect.*

**Hypothesis 2.b** *Higher (lower) profitability increases (decreases) the preference of students for the asset and mitigates the label effect.*

Finally, existing research suggests that the financial behaviors of professionals differ from those of students in various aspects (Haigh and List, 2005; Cohn et al., 2014; Kirchler et al., 2018; Holmen et al., 2023). In this article, we anticipate professionals and students to exhibit distinct pro-environmental preferences, partly due to their age difference (Van Lange et al., 1997; Blake et al., 2015; Matsumoto et al., 2016). This literature lead us to Hypothesis 3.a and Hypothesis 3.b:

**Hypothesis 3.a** *Financial professionals' preference for the Brown asset is lower than students.*

**Hypothesis 3.b** *Financial professionals' preference for the Green asset is higher than students.*

To examine these hypotheses, we employ an experimental methodology with the advantage of isolating the effects of the projects' label and subject status (professional or student), as well as the difference in profitability between these projects while keeping all other factors constant. Our experiment is structured around an allocation task between cash and a risky project, successively offering a Neutral project, an environmentally friendly (Green) project, and an environmentally unfriendly (Brown) one. Each project involved three characteristics: risk, return, and environmental impact. The positive externality associated with the Green project is conveyed through a 50% donation of the invested amount to an association dedicated to global reforestation. Conversely, the negative externality linked to the Brown project is represented by a similar donation to an association advocating for the use of oil and gas. The Neutral project is not associated with any externality. We analyze the participants' tradeoffs between these dimensions, based on their stated environmental preferences. From an augmented mu-sigma theoretical model, we can infer the preferences of each subject for the Green and Brown projects based on their wealth allocation in these respective projects.

Our main findings are as follows: (1) the preferences of both financial professionals and students are stronger for the Green project compared to the Brown one when they have similar returns; (2) in contrast to professionals, students' preferences for the Brown project enhance when it offers a higher return than the Green project; and (3) professionals exhibit a higher (lower) tendency to invest in the Green (Brown) project than students, even when

it is less (more) profitable.

The rest of the article is structured as follows. Section 2 details the methodology, experimental design, and the model used to infer investors' preferences. Section 3 presents the results of univariate and multivariate analyses for the entire sample, as well as the subsamples of financial professionals and students. Section 4 discusses the results, their implications and concludes.

# 2 Methodology

## 2.1 Experimental design

The experiment encompasses a series of tasks, with the central focus on a project choice task. This primary task serves as a means to elicit subjects' preferences for environmentally friendly projects. Complementary to this core task, several ancillary tasks were incorporated to collect data on explanatory variables crucial for understanding the decision-making processes involved:

1. Bomb Risk Elicitation Task (BRET): The BRET methodology by Crosetto and Filippin (2013) is employed to assess subjects' risk preferences. Visual representations of this task can be found in Appendix B from Figure B7 to Figure B10.

2. NEP Questionnaire (New Ecological Paradigm): The NEP questionnaire (Dunlap et al., 2000) is administered to measure participants' Environmental, Social, and Gov-

ernance (ESG) sensitivity. A visual depiction of this questionnaire is provided in Figure B11.

3. Socio-demographic Questionnaire: Essential socio-demographic information is captured through a questionnaire (Figure B12) administered to participants.[1]

On average, participants spent approximately 30 minutes completing the experiment, engaging with each task comprehensively. This diversified approach ensures a robust dataset, providing insights not only into subjects' preferences for environmentally friendly assets but also into their risk attitudes and socio-demographic characteristics.

The investment task draws inspiration from the work of Gneezy and Potters (1997) and unfolds over three rounds, each featuring distinct choice options (refer to the flow diagram in Figure 1). In each round, participants were initially allocated specific sums: 70 euros for financial professionals and an equivalent of 10 euros, denominated as 70 ECU, for students.[2] Within the parameters of each round, participants were then tasked to distribute their allocated funds between a certain (sure) project and a risky project. The sure project guaranteed a 1:1 return on the invested amount, essentially entailing the preservation of a fraction of the endowment. The risky project presented a binary lottery with an equal likelihood of success and failure. In the event of success, the investment was multiplied by a coefficient denoted as $M$, greater than one; in case of failure, the multiplication factor was zero. The experiment

[1]The subjects' income has been coded as a categorical variable ranging from 0 to 7 reflecting the income intervals [0-50K€], [50-75K€], [75-100K€], [100-150K€], [150-200K€], [200-300K€], and [>300K€], respectively. The study level has been coded for each validated year of study after high school from 0 (first year of Bachelor) to 7 (completed PhD). The study's discipline (only for Students group) took the value 1 for disciplines in Administration, Business, Economics, and Management, and the value 0 for the other disciplines.

[2]This deliberate differentiation in endowment aims to reflect the significant income gap between financial professionals (with an average annual income of 77,000 euros) and students (with an average annual income of 11,616 euros according to OVE, 2016). Students earn approximately seven times less than financial professionals.

introduced three distinct risky projects: Neutral, Green, and Brown. The Green project carried a positive externality, signifying that 50% of the subject's investment would be donated to an environmental driven organization dedicated to forest protection and recovery[3], with the experimenter covering the donation expenses. Consequently, the donation does not affect the profitability of the project for the participant. Conversely, the Brown project bore a negative externality, with 50% of the subject's investment earmarked for an international association of oil and gas production[4] , with the experimenter also covering the donation. The Neutral project, in contrast, did not involve any associated externality. To underscore the impact of projects' externalities on investment behavior, a high donation rate of 50% to the respective associations was chosen. To mitigate potential experimenter demand effects (Zizzo, 2010), projects were denoted by unloaded names (A, B, and C). The investment task is designed to be straightforward, uncomplicated, and completed within a 5-minute timeframe for all three rounds. This deliberate simplicity aims to ensure that participants make decisions without the interference of decision fatigue, recognizing that willpower can be akin to a fatigable muscle (Gailliot et al., 2007). In the sequence of rounds, the first always features a Neutral project, while the subsequent two rounds present the Green and Brown projects in random order. This randomization, with a 50% probability for each ordering (Green followed by Brown or Brown followed by Green), is implemented to mitigate the

[3]This entity operates as an international social enterprise, focusing on promoting sustainable forest regeneration worldwide via crowd-sourced funding. Its mission encompasses the preservation, restoration, and enhancement of woodland areas across the globe. Further details, such as the entity's name, its web address, and the total financial contributions made, are available upon inquiry. For those reviewing this document, the entity is identified as Reforest'Action, which can be found at https://www.reforestaction.com/en.

[4]A worldwide organization comprising oil and gas producers, this consortium is dedicated to advocating for the adoption of fossil fuels, including shale-derived gas. Detailed information, including the organization's name, its website link, and the financial contributions made, is available upon request. For the purpose of review, the organization in question is the International Association of Oil & Gas Producers, which can be visited at https://www.iogp.org/.

potential influence of the ordering effect (Day et al., 2012). The experiment is structured into two treatments, as depicted in Figure 1.

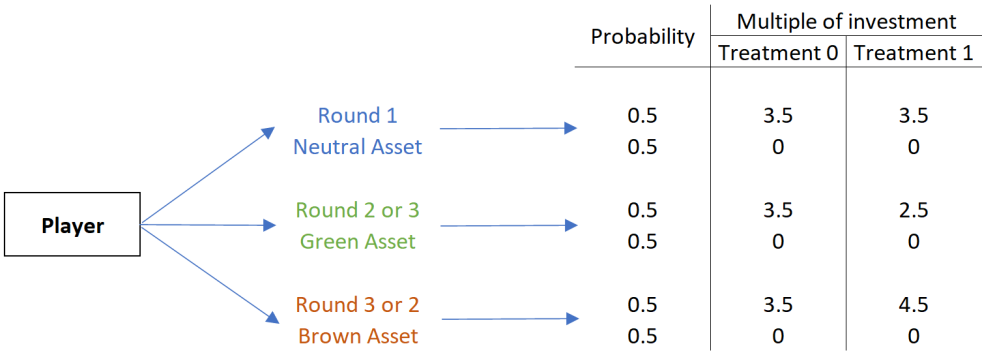


Figure 1: Flow diagram of the experimental protocol.

In the baseline treatment (Treatment 0), the profitability of the three projects is uniform, aligning with findings from certain empirical studies (Cortez et al., 2009). To incentivize participants to embrace investment risks, a relatively high common multiplier of 3.5 is employed. In Treatment 1, deliberate variations are introduced, wherein the Green project is less profitable ($M = 2.5$) compared to the Neutral ($M = 3.5$) and Brown projects ($M = 4.5$). This aligns with patterns observed in other empirical studies (Borgers et al., 2015). Importantly, these multipliers are chosen such that the expected return, when combined with the associated externality, results in an equivalent cumulative amount for each project. This careful consideration ensures comparability and consistency across the different projects in terms of their financial and environmental impacts[5].

By equalizing profitability in Treatment 0, we can effectively isolate the distinct impacts of the label and externality associated with the projects. By comparing Treatment 0 and

[5]For example, one euro invested in any project will yield an identical cumulative amount of expected return and externality across the projects: (1) Neutral project: expected return $1/2 \times$ (1 euro invested $\times 3.5$) $= 1.75$ euros; (2) Green project: expected return $1/2 \times$ (1 euro invested $\times 2.5$) $+ 0.5$ euro positive externality $= 1.75$ euros; (3) Brown project: expected return $1/2 \times$ (1 euro invested $\times 4.5$) $- 0.5$ euro negative externality $= 1.75$ euros.

Treatment 1, we can assess the effect of manipulating profitability on investments in each project. Overall, this treatment analysis allows us to estimate the subjects' asset preferences, offering insights into how varying profitability levels interact with labels and externalities in shaping decision-making behavior.

We employed a mixed (within-between subjects) design, requiring each participant to make three consecutive portfolio choices, each involving a distinct risky project. We hypothesized that participants' investment decisions would be influenced by the three key characteristics outlined in the project descriptions: the label, profitability, and externality (represented by experimenter donations for a green or brown organization). Each participant was assigned to participate in either Treatment 0 or Treatment 1.

To incentivize active engagement in the investment task, we implemented a random-round payment structure. Participants were informed that, at the session's conclusion, one of the three rounds would be randomly selected for real payment. This selection would be contingent on the outcome of the lottery associated with the risky project (either "win" or "lose"). The incentive-compatibility of this random-round payment mechanism has been substantiated by previous studies such as Starmer and Sugden (1991), Charness et al. (2016), and Clot et al. (2018).

Participants were informed that the second task (BRET), conducted after the investment task, would be paid for. However, the two questionnaires (NEP and socio-demographic questionnaire) were not remunerated. Notably, financial professionals were made aware that the computer would randomly select one out of 10 of them to receive compensation at the experiment's conclusion. It is important to highlight that all subjects in the student sample

received payment (refer to Section 2.2.2 for additional details on the experimental settings for students).

For the selected financial professionals, the average (maximum) payoff amounted to 95 euros (124 euros) for a 30-minute experiment. In comparison, Kirchler et al. (2018) calculated the average net salary of financial professionals to be 26 euros per hour, making the remuneration in this study seven times higher than this average. This substantial monetary incentive was strategically designed to foster active and genuine participation. For comparison, Kirchler et al. (2018) compensated one out of every five participants, with an average payment of 52 euros per participant. This resulted in an average total of 260 euros for those selected, for a 45-minute experiment, while in Bottasso et al. (2022) the average compensation for computer-selected participants (with a one-in-10 chance) amounted to 280 euros. Weitzel et al. (2020) conducted a 70-minute experiment where participants were compensated with an average payment of 76.5 euros and Haigh and List (2005) provided a payment of 40 dollars for a 25-minute task.

## 2.2 Practical procedures

### 2.2.1 Experiments with financial professionals

The experiment involving financial professionals adopted a lab-in-the-field approach and was conducted at various locations in France, reflecting diverse settings within the financial sector. Specifically, sessions were held at a leading international asset management forum in Paris, the headquarters of a prominent bank in Marseille, and a private investment company in Paris.

The initial session took place during an Asset Management Forum in October 2019, which over four hundred financial professionals attended. We leveraged this opportunity to engage volunteers in a session assessing their preferences for projects with varying environmental impacts and profitability. Data from 63 participants were collected during this event. The second session occurred at the headquarters of a large bank in Marseille in November 2019, involving 66 participants who participated in the experiment during their work time. The third session, hosted by a private investment company in Paris in January 2020, gathered data from an additional 10 participants. In total, data from 139 financial professionals were collected. To facilitate data collection, we utilized a mobile laboratory equipped with 30 Android tablets, a laptop server, and a Wi-Fi station. The experiment applications were developed using the oTree platform (Chen et al., 2016).

### 2.2.2 Experiments with students

The student experiment took place in the spring of 2020, coinciding with the lockdown enforced by the French Government amid the COVID-19 health crisis. Consequently, participants were recruited from the ORSEE database (Greiner, 2015) and completed the experiment online. A total of 233 students participated in this experiment, connecting to the same oTree interface as the financial professionals. Unlike the professionals, all student participants were remunerated for their involvement.

In each round of the investment task, students were endowed with 70 ECU (equivalent to 10 euros). The average earnings for a participant amounted to 15 euros, inclusive of a participation fee. This remuneration is four times higher than the average salary of a French

student for a 30-minute assignment[6]. Payments were facilitated online through the PayPal platform.

## 2.3 Theoretical framework: an augmented mu-sigma model

In proposing an augmented mu-sigma model, we aim to characterize participants' optimal investment allocation in asset $i$ based on their preferences for returns, risk, and externality associated with that specific asset. Once we know the investment allocations made by each participant across various assets, we can infer their preferences for externality and quantify these preferences using empirical data obtained from the experiment. By this approach, we are able to infer the preferences of the participants from their investment allocations considering the various returns/variances of the projects.

### 2.3.1 The model

We start with a general framework before introducing specific functional forms. Let us consider a two-player, non-strategic, game. Player $i$ and $j$ have initial endowments $w_i, w_j$. Player $i$, the decision-maker has the opportunity to invest $x_i \leqslant w_i$ in a risky option that affects player $j$'s wealth. The risky option earns $rx_i$ with probability $\frac{1}{2}$ or 0 with probability $\frac{1}{2}$. We assume $r > 2$, i.e. the expected return $(\frac{r}{2} - 1)$ from the risky option is larger than 0, the return of the safe option. Player $j$ is passive and earns $\theta x_i$. Let $y_i$ and $y_j$ stand for player $i$ and $j$'s material payoffs.

Player $i$'s utility is defined by:

[6]The average monthly income of a French student is 968 euros (OVE, 2016) which represents an hourly earning of 6.90 euros.

$$V_i(y_i, y_j) = u_i(y_i) + \gamma_i u_j(y_j) \tag{1}$$

with:

$$y_i = \begin{cases} w_i - x_i + rx_i, \text{ with probability } \frac{1}{2} \\ w_i - x_i, \text{ with probability } \frac{1}{2} \end{cases} \tag{2}$$

and:

$$y_j = w_j + \theta x_i, \text{with probability 1.} \tag{3}$$

Substituting the expression of $y_i$ in Equation 1 leads to:

$$V_i(y_i, y_j) = \left[\frac{1}{2}u_i(w_i - x_i + rx_i\ ) + \frac{1}{2}u_i(w_i - x_i)\right] + \gamma_i u_j(w_j + \theta x_i) \tag{4}$$

The interpretation is as follows: $\gamma_i \gtrless 0$ is a parameter that captures the other-regarding preference of player $i$. Player $i$ chooses her level of investment in the risky asset, $x_i$, based on the return parameter $r$, her risk-preferences captured by $u(.)$ and her other-regarding preference $\gamma_i$.

Regarding Player $j$, we assume:

$$V_j(y_i, y_j) = u_j(y_j). \tag{5}$$

Following Gasser et al. (2017), we consider a $\mu - \sigma^2$ specification for the preferences of player $i$, and propose the following model:

$$V_i(y_i, y_j) = \alpha\mu(y_i) - \beta\sigma^2(y_i) + \gamma y_j. \tag{6}$$

In our experiment, we set $\theta = 0.5$, which leads to: $y_j = w_j + 0.5x_i$. It is easy to show that such specification is compatible with a quadratic form of the utility function $u_i$.

Player $i$'s expected wealth, $\mu(y_i)$, and the variance $\sigma^2(y_i)$ are given, respectively, by:

$$\mu(y_i) = w_i + (\frac{r}{2} - 1)x_i, \tag{7}$$

and:

$$\sigma^2(y_i) = \frac{r^2}{4}x_i^2. \tag{8}$$

Recall that $r > 2$, so that $\mu(y_i)$ is strictly increasing in $x_i$.

Substituting the expression of $\mu$ and $\sigma^2$ into player $i$'s utility function leads to:

$$V_i(y_i, y_j) = \left[\alpha(\frac{r}{2} - 1) + 0.5\gamma\right] x_i - \beta\frac{r^2}{4}x_i^2 + (\alpha w_i + \gamma w_j)\,. \tag{9}$$

The first-order condition, $\frac{\partial V_i(y_i,y_j)}{\partial x_i} = 0$, leads to the optimal level of investment in the risky asset:

$$x_i^* = \frac{\alpha(\frac{r}{2} - 1) + 0.5\gamma}{\beta\frac{r^2}{2}}. \tag{10}$$

It is easy to see that the investment in the risky asset increases with the sensitivity to return ($\alpha$) and with the externality concern ($\gamma$) and decreases with the sensitivity to risk ($\beta$).

Let $\pi_A$ stand for the expected return of asset $A$, and $\sigma_A^2$ its variance. We can rewrite Equation 10 as follows:

$$x_i^* = \frac{\alpha\pi_A + 0.5\gamma}{2\beta\sigma_A^2}. \tag{11}$$

### 2.3.2 Optimal allocation of the participant *k*

Let's consider the assets from our model as projects in our experiment. In the latter, the first round always consists of collecting the amount of wealth allocated in the Neutral project $N$. Under the assumption that subjects make optimal allocations we can establish:

$$x_{k,N}^* = S_k \times \frac{\pi_N}{2\sigma_N^2}. \tag{12}$$

with:

$$S_k = \frac{\alpha_{k,N}}{\beta_{k,N}}. \tag{13}$$

Since the Neutral project produces no externality, the parameter $\gamma$ takes the value of 0. $S_k$ denotes the normalized risk aversion of subject $k$.

In the second and third rounds, the participant chooses the amounts to invest in the Green ($G$) and Brown ($B$) projects, respectively. A participant who disregards the externality arising from their investment (i.e., $\gamma = 0$), invests the following optimum amount in the risky project, for given $\pi_A$ and $\sigma_A^2$, whatever its label:

$$x_{k,A}^0 = S_k \times \frac{\pi_A}{2\sigma_A^2}. \tag{14}$$

Any deviation of the optimal amount, $x_{k,A}^*$, from $x_{k,A}^0$ reveals a non-null sensitivity towards the externality factor ($\gamma \neq 0$), as outlined in Equation 11:

$$x^*_{k,A} = S_k \times \frac{\pi_A}{2\sigma_A^2} + \frac{0.5\gamma_{k,A}}{\beta_{k,A} \times 2\sigma_A^2} \neq x^0_A. \tag{15}$$

### 2.3.3 Determination of $\alpha_k$ and $\beta_k$ from player $k$'s investments

Knowing the observed player $k$'s allocation in the Neutral project, $\hat{x}_{k,N}$, we can deduct the variable $S_k$ from Equation 12:

$$S_k = \frac{\hat{x}_{k,N} \times 2\sigma_N^2}{\pi_N}. \tag{16}$$

From Equation 1, we equalize the utility of player $k$ to her expected wealth considering $\gamma = 0$ and an investment of $x^0_{k,A}$ in any project $A$ ($A \in \{N, G, B\}$):

$$V_k(y_k, y_j) = u_k(y_k) \times x^0_{k,A}. \tag{17}$$

Equation 17 can be developed from Equation 9 and Equation 7 as follows:

$$\alpha_{k,A} \times \pi_A \times x^0_{k,A} - \beta_{k,A} \times \sigma_A^2 \times \left(x^0_{k,A}\right)^2 + \alpha_{k,A} \times w_k = w_k + \pi_A \times x^0_{k,A}. \tag{18}$$

By stating $\alpha_{k,A} = S_k \times \beta_{k,A}$, we can deduct the value of $\beta_{k,A}$:

$$S_k \times \beta_{k,A} \times \pi_A \times x^0_{k,A} - \beta_{k,A} \times \sigma_A^2 \times \left(x^0_{k,A}\right)^2 + S_k \times \beta_{k,A} \times w_k = w_k + \pi_A \times x^0_{k,A}.$$

$$\beta_{k,A} = \frac{w_k + \pi_A \times x^0_{k,A}}{S_k \times \pi_A \times x^0_{k,A} - \sigma^2_A \times \left(x^0_{k,A}\right)^2 + S_k \times w_k}, \tag{19}$$

and then:

$$\alpha_{k,A} = S_k \times \beta_{k,A}. \tag{20}$$

### 2.3.4 Identification of $\gamma_k$, the participant $k$'s sensitivity to the externality

Let $\hat{x}_{k,A}$ correspond to the observed level of investment by participant $k$ in the project $A$ in the second or third round of the experiment. We can identify $\gamma_{k,A}$, her externality preference, under the assumption:

$$\hat{x}_{k,A} = x^*_{k,A}.$$

From Equation 15:

$$\hat{x}_{k,A} = \frac{\alpha_{k,A} \times \pi_A + 0.5\gamma_{k,A}}{\beta_{k,A} \times 2\sigma^2_A}. \tag{21}$$

By solving Equation 21 for $\gamma_k$, we obtain:

$$\gamma_{k,A} = \frac{\hat{x}_{k,A} \times \beta_{k,A} \times 2\sigma^2_A - \alpha_{k,A} \times \pi_A}{0.5}. \tag{22}$$

$\gamma_{k,A}$ designates the investor's sensitivity to the externality related to project $A$. Similarly, we define $\gamma_{k,G}$ and $\gamma_{k,B}$ as the sensitivity corresponding to the project $G$ and $B$, respectively. We also define, by $\Delta\gamma_k$, the sensitivity difference between the two projects as follows:

$$\Delta\gamma_k = \gamma_{k,G} - \gamma_{k,B}. \tag{23}$$

We will call this difference "net Green project preference" in the sequel.

### 2.3.5 Calibration of participant $k$'s preferences

In this section, for illustration purposes, we simulate a participant $k$'s preferences according to her investment in each project for Treatment 0 and Treatment 1. For consistent comparison between subjects, we standardize $S_k$ and $\beta_k$ by the subject's wealth $w_k$. Then, $S_k$ in Equation 16 becomes:

$$S_k = \frac{\hat{X}_N \times 2\sigma_N^2}{\pi_N}, \tag{24}$$

where $\hat{X}_N$ is the subject's wealth proportion invested in the Neutral project:

$$\hat{X}_N = \frac{\hat{x}_N}{w_k}.$$

And, $\beta_{k,A}$ and $\alpha_{k,A}$, respectively in Equation 19 and Equation 20, become after simplification:

$$\beta_{k,A} = \frac{1 + S_k \times \frac{{\pi_A}^2}{2\sigma_A^2}}{S_k \times (1 + S_k \times \frac{{\pi_A}^2}{4\sigma_A^2})}. \tag{25}$$

$$\alpha_{k,A} = \frac{1 + S_k \times \frac{{\pi_A}^2}{2\sigma_A^2}}{1 + S_k \times \frac{{\pi_A}^2}{4\sigma_A^2}}. \tag{26}$$

$\gamma_{k,A}$ and $\Delta\gamma_k$ in Equation 22 and Equation 23 remain unchanged by replacing $\hat{x}_A$ by $\hat{X}_A$.

- Treatment 0: The projects' expected return and variance are given in the table below (see Section 2.1 and Figure 1).

| Projects | $r$ | Expected return | Variance |
|---|---|---|---|
| Neutral | 3.5 | 0.75 | 3.0625 |
| Green | 3.5 | 0.75 | 3.0625 |
| Brown | 3.5 | 0.75 | 3.0625 |

Suppose that, in the first round, a subject decides to invest 40% of her wealth in the Neutral project. From this allocation, we can infer the following parameters:

| Allocation in Neutral project | $S_k$ Equation 24 | $\beta_k$ Equation 25 | $\alpha_k$ Equation 26 |
|---|---|---|---|
| 40% | 3.2667 | 0.346 | 1.1304 |

Then, in the second and third rounds, suppose that the same subject chooses to invest, respectively, 48% of her wealth in the Green project and 40% in the Brown project, we can infer her externality preference:

| Projects | Allocation | $S_k$ Equation 24 | $\beta_k$ Equation 25 | $\alpha_k$ Equation 26 | $\gamma_k$ Equation 22 |
|---|---|---|---|---|---|
| Green | 48% | 3.267 | 0.346 | 1.13 | 0.339 |
| Brown | 40% | 3.267 | 0.346 | 1.13 | 0.000 |
| $\Delta\gamma_k$ Equation 23 | | | | | 0.339 |

We observe that the variable $S_k$ denotes the normalized risk aversion of subject $k$. A lower value of $S$ indicates higher risk aversion. For instance, when comparing two subjects with equivalent return requirements (same Alpha), the subject exhibiting greater risk aversion (higher Beta) will have a lower $S$. Because the subject invests 20% more in the Green project than the Neutral project, and the same amount in the

Brown project, her Green project preference, $\gamma_G$, and her net Green project preference, $\Delta\gamma$, are positive.

- Treatment 1: The projects' expected return and variance are in the table below (see Section 2.1 and Figure 1).

| Projects | $r$ | Expected return | Variance |
|---|---|---|---|
| Neutral | 3.5 | 0.75 | 3.0625 |
| Green | 2.5 | 0.25 | 1.5625 |
| Brown | 4.5 | 1.25 | 5.0625 |

Suppose that a subject, in Treatment 1, chooses the following allocations: 40% in the Neutral project, 36% in the Green project, and 40% in the Brown project, we obtain the following data:

| Projects | Allocation | $S_k$ Equation 24 | $\beta_k$ Equation 25 | $\alpha_k$ Equation 26 | $\gamma_k$ Equation 22 |
|---|---|---|---|---|---|
| Neutral | 40% | 3.267 | 0.346 | 1.13 | |
| Green | 36% | 3.267 | 0.316 | 1.032 | 0.195 |
| Brown | 40% | 3.267 | 0.368 | 1.201 | -0.025 |
| $\Delta\gamma_k$ Equation 23 | | | | | 0.220 |

Despite the subject investing 10% less in the Green project than the Neutral project, her Green project preference, $\gamma_G$, remains positive. Similarly, her Brown project preference, $\gamma_B$, is negative although she invests the same proportion as the Neutral project. These results demonstrate the ability of our model to implement subjects' preferences by taking into account the return and variance of the projects. The proportions invested in projects with different returns and variances are unreliable proxies of project preferences.

The utility functions corresponding to subjects' investment in the Green project are represented in Figure 2 for each Treatment.

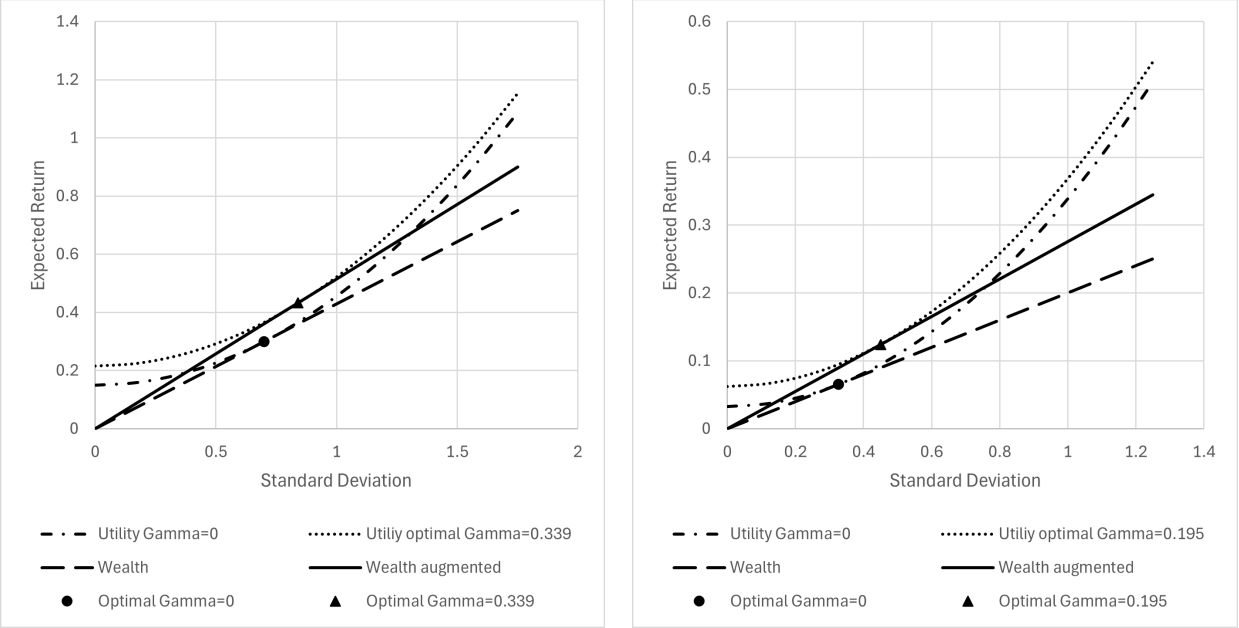


Figure 2: Utility functions for the Green project in Treatment 0 (Left Graph) and in Treatment 1 (Right Graph).

Given that we derive subjects' preferences from this model, it became necessary to exclude participants whose allocations to the Neutral project were zero in the first round. This decision was motivated by the fact that if a subject invests nothing in the Neutral project, her risk aversion would be infinite. Consequently, any deviations towards a risky project with externality would result in inconsistent and excessively high preferences for externality.

To maintain reliable and manageable data, we opted to eliminate these subjects from the analysis. After implementing this exclusion criterion, the remaining dataset comprised 131 professionals and 227 students, ensuring that the subsequent analysis was based on participants with more meaningful and interpretable preferences.

# 3 Results

In the upcoming subsections, we delve into an examination of subjects' sensitivity to asset preference through both univariate and multivariate tests. GammaG, GammaB, and DeltaGvsB will denote the Green project preference ($\gamma_G$), Brown project preference ($\gamma_B$), and net Green project preference ($\Delta\gamma$) of the subjects, respectively. The variable $S$ (Alpha/Beta) serves as a robust proxy for the subject's risk aversion, as outlined in Section 2.3.5.

## 3.1 Univariate analysis

### 3.1.1 Subjects' project preference on the whole sample

In this subsection, our objective is to assess whether the subjects' project preferences exhibit a significant deviation from zero. This analysis is conducted on the entire sample as well as sub-samples categorized by Treatment and professional status. The descriptive statistics of the collected and calculated data are displayed in Appendix A, Table A1 (Whole sample), Table A2 (students' sample), and Table A3 (professionals' sample).

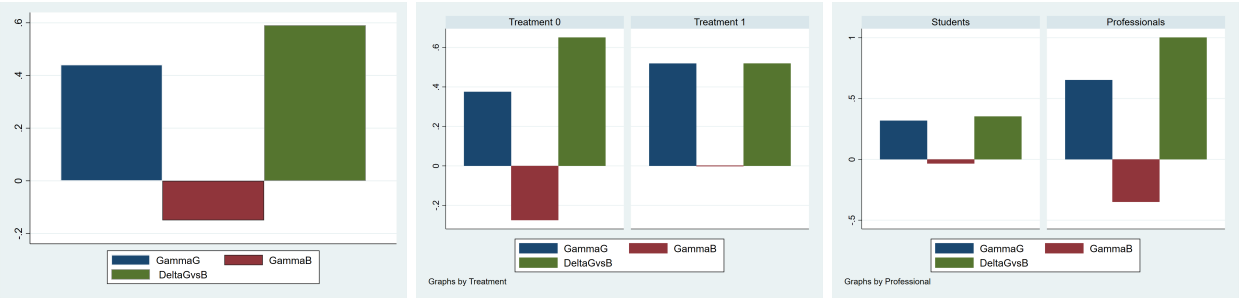


Figure 3: Subjects project preference.

In Table 1, we test the significance of the non-null hypothesis for each calculated variable. For the investment variables, we have reported the supplemental investment proportion

Table 1: t-test of non-null hypothesis for Preference and Investment variables

| Variables | Whole | Treatment 0 | Treatment 1 | Students | Professionals |
|---|---|---|---|---|---|
| *Preferences* | | | | | |
| GammaG | 0.441*** | 0.376*** | 0.519*** | 0.319*** | 0.653*** |
| | (0.048) | (0.077) | (0.057) | (0.070) | (0.068) |
| GammaB | −0.150 | −0.275** | −0.000 | −0.035 | −0.350* |
| | (0.105) | (0.100) | (0.185) | (0.170) | (0.136) |
| DeltagGvsB | 0.591*** | 0.651*** | 0.519** | 0.353* | 1.003*** |
| | (0.102) | (0.100) | (0.178) | (0.163) | (0.130) |
| *Investment* | | | | | |
| InvG | 0.268*** | 0.231*** | 0.312*** | 0.170** | 0.438*** |
| | (0.043) | (0.046) | (0.074) | (0.062) | (0.063) |
| InvB | −0.066 | −0.146* | 0.029 | −0.042 | −0.109 |
| | (0.045) | (0.061) | (0.066) | (0.066) | (0.066) |
| InvGminusInvB | 0.335*** | 0.377*** | 0.283*** | 0.212** | 0.547*** |
| | (0.052) | (0.061) | (0.084) | (0.073) | (0.077) |
| Observations | 358 | 195 | 163 | 227 | 131 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table 1, the non-null hypothesis of variables is examined for the whole sample (Whole), Treatment 0 sample (Treatment 0), Treatment 1 sample (Treatment 1), students' sample (Students), and professionals' sample (Professionals). 'GammaG', 'GammaB', and 'DeltaGvsB' represent the Green project, Brown project, and the net Green project preferences, respectively. 'InvG' ('InvB') is the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project. 'InvGminusInvB' is the difference between 'InvG' and 'InvB'.

(InvG and InvB) in each project (Green or Brown) compared to the investment in the Neutral project. For instance, if a subject has invested 10% of her wealth in the Neutral project and 20% in the Green project, InvG took the value of 1 ($0.2/0.1 - 1 = 1$). If she has invested 8% in the Brown project, InvB was equal to $-0.2$. The variable InvGminusInvB represents the difference between InvG and InvB ($1 - (-0.2) = 1.2$).

Drawing insights from both Table 1 and Figure 3, it is apparent that the preference for the Green project (GammaG) is consistently and significantly positive across all samples. However, the preference for the Brown project (GammaB) shows a significantly negative trend only in Treatment 0. A similar pattern is observed in the investment variables. In aggregate,

the net preference for the Green project (DeltaGvsB) remains significantly positive across all samples. While these initial observations support the notion of a robust Green project preference, aligning with our Hypothesis 1, Figure 4 introduces a layer of complexity when considering the distinctions between Treatment effects and the preferences of professionals versus students.

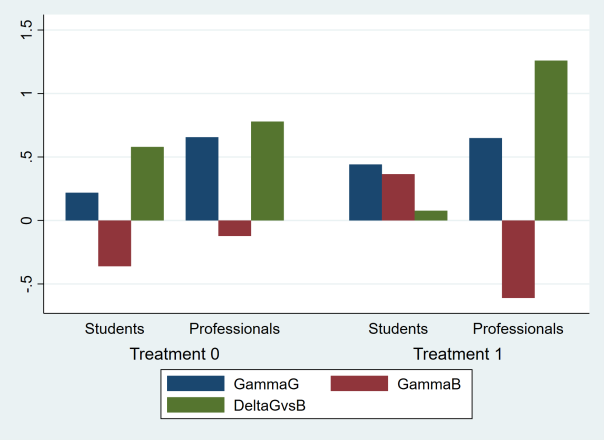


Figure 4: Students vs Professionals.

### 3.1.2 Treatment 1 vs Treatment 0

From Table 2, notable distinctions emerge in certain variables exclusively within the students' subsample when comparing Treatment 1 and Treatment 0. Firstly, it becomes apparent that the cohort of students in Treatment 1 exhibits a heightened level of risk aversion compared to those in Treatment 0. This inference gains further support from the statistical significance of both Bret score and $S$ variables, underscoring the reliability of the former as a robust proxy for risk aversion. Secondly, the students' inclination toward the Brown project is markedly more pronounced in Treatment 1. This last result is aligning with our Hypothesis 2.b. Lastly, there is no significant variation between Treatment 1 and Treatment 0 for the professionals.

### 3.1.3 Students vs Professionals

Table 3 reveals distinct characteristics between students and professionals. Students, as compared to professionals, exhibit lower levels of risk aversion in Treatment 0, as indicated by the Bret score and $S$ variables. The student group comprises more females (Gender), individuals with lower income (Income), and younger participants (Age). On the whole sample, the preference for Green projects (GammaG and DeltaGvsB) is notably higher among professionals, aligning with the expectations outlined in Hypothesis 3.b. This pattern is consistent in the sub-sample for Treatment 0. However, for Treatment 1, a noteworthy shift is observed. Students in this treatment display a significantly higher preference for the Brown project than professionals, suggesting that their inclination towards the label is tempered by considerations of project return. This finding supports our Hypothesis 3.a. Furthermore, the net preference for Green projects (DeltaGvsB) remains significantly higher

Table 2: t-test on difference, Treatment 1 vs Treatment 0

| | Whole | Students | Professionals |
|---|---|---|---|
| *Controls* | | | |
| Bret score | −1.662 | −6.319* | 6.636 |
| | (2.438) | (2.812) | (4.384) |
| Nep score | 0.597 | 0.319 | 1.056 |
| | (0.739) | (0.958) | (1.156) |
| Gender | −0.084 | −0.076 | −0.091 |
| | (0.053) | (0.067) | (0.083) |
| Income | 0.186 | 0.203 | 0.131 |
| | (0.164) | (0.181) | (0.309) |
| Age | 0.794 | 0.782 | −0.005 |
| | (1.275) | (0.682) | (1.769) |
| *Preferences* | | | |
| S (Alpha/Beta) | −0.185 | −0.573* | 0.503 |
| | (0.217) | (0.265) | (0.365) |
| GammaG | 0.143 | 0.223* | −0.008 |
| | (0.096) | (0.106) | (0.182) |
| GammaB | 0.275 | 0.725** | −0.488 |
| | (0.210) | (0.255) | (0.357) |
| DeltaGvsB | −0.132 | −0.502* | 0.480 |
| | (0.205) | (0.247) | (0.343) |
| *Investment* | | | |
| InvG | 0.081 | 0.079 | 0.075 |
| | (0.087) | (0.095) | (0.167) |
| InvB | 0.175 | 0.353*** | −0.128 |
| | (0.090) | (0.098) | (0.175) |
| InvGminusInvB | −0.094 | −0.274* | 0.203 |
| | (0.104) | (0.109) | (0.204) |
| Obs. Treatment 0 | 195 | 125 | 70 |
| Obs. Treatment 1 | 163 | 102 | 61 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* Table 2 illustrates the mean differences of various variables between the samples in Treatment 0 and Treatment 1 for the entire sample, the professionals' sample, and the students' sample. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level. 'Age' is the age of the subjects. The risk attitude of investors is characterized by the variable '$S$'. 'GammaG', 'GammaB', and 'DeltaGvsB' represent the preferences for the Green project, Brown project, and the net Green project preference, respectively. 'InvG' ('InvB') is the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project. 'InvGminusInvB' is the difference between 'InvG' and 'InvB'.

among professionals in Treatment 1.

Table 3: t-test on difference, Students vs Professionals

| | Whole | Treatment 0 | Treatment 1 |
|---|---|---|---|
| *Controls* | | | |
| Bret score | 6.631** | 12.560*** | −0.395 |
| | (2.498) | (3.366) | (3.668) |
| Nep score | −0.519 | −0.170 | −0.908 |
| | (0.764) | (1.105) | (1.040) |
| Gender | 0.198*** | 0.190* | 0.205* |
| | (0.054) | (0.074) | (0.079) |
| Income | −0.645*** | −0.675** | −0.603* |
| | (0.166) | (0.210) | (0.266) |
| Age | −19.749*** | −20.103*** | −19.316*** |
| | (0.803) | (1.014) | (1.285) |
| *Preferences* | | | |
| S (Alpha/Beta) | 0.442* | 0.934** | −0.143 |
| | (0.223) | (0.300) | (0.330) |
| GammaG | −0.334*** | −0.438** | −0.207 |
| | (0.098) | (0.144) | (0.129) |
| GammaB | 0.315 | −0.238 | 0.975* |
| | (0.217) | (0.191) | (0.412) |
| DeltaGvsB | −0.649** | −0.200 | −1.182** |
| | (0.209) | (0.191) | (0.394) |
| *Investment* | | | |
| InvG | −0.268** | −0.268** | −0.264 |
| | (0.089) | (0.086) | (0.166) |
| InvB | 0.067 | −0.152 | 0.330* |
| | (0.094) | (0.117) | (0.147) |
| InvGminusInvB | −0.335** | −0.117 | −0.594** |
| | (0.106) | (0.115) | (0.185) |
| Obs. Students | 227 | 125 | 102 |
| Obs. Professionals | 131 | 70 | 61 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table 3, the mean differences of various variables between the students' and professionals' samples are depicted for both the entire sample and the subsamples corresponding to Treatment 0 and Treatment 1. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level. 'Age' is the age of the subjects. The risk attitude of investors is characterized by the variable '$S$'. 'GammaG', 'GammaB', and 'DeltaGvsB' represent the Green project, the Brown project, and the net Green project preferences, respectively. 'InvG' ('InvB') is the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project. 'InvGminusInvB' is the difference between 'InvG' and 'InvB'.

## 3.2 Multivariate analysis

### 3.2.1 Subjects' project preference

In Table 4, the preference for the Green project (GammaG) and the net green preference (DeltaGvsB) both exhibit a positive correlation with the Professional variable. This observation suggests that professionals display a heightened sensitivity toward the Green project (Hypothesis 3.b). Furthermore, consistent patterns emerge as the Nep Score is found to be negatively correlated with the preference for the Brown project (GammaB) and positively correlated with the net preference for the Green project (DeltaGvsB).

Table 4: Regression of project preferences - Whole sample

| | (1) GammaG | (2) GammaB | (3) DeltaGvsB |
|---|---|---|---|
| Treatment | 0.1495 | 0.2937 | −0.1442 |
| | (0.0952) | (0.2165) | (0.2063) |
| Bret score | −0.0019 | −0.0031 | 0.0012 |
| | (0.0018) | (0.0037) | (0.0036) |
| Nep score | 0.0001 | −0.0436** | 0.0437*** |
| | (0.0066) | (0.0139) | (0.0123) |
| Gender | 0.1733 | 0.2193 | −0.0460 |
| | (0.0961) | (0.2137) | (0.2073) |
| Income | −0.0008 | 0.1410 | −0.1418 |
| | (0.0278) | (0.1307) | (0.1259) |
| Professional | 0.3541** | −0.3650 | 0.7191** |
| | (0.1078) | (0.2707) | (0.2581) |
| Constant | 0.2247 | 2.1852** | −1.9605** |
| | (0.3876) | (0.8143) | (0.7087) |
| Observations | 358 | 358 | 358 |
| Adjusted $R^2$ | 0.0334 | 0.0315 | 0.0518 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table 4, robust ordinary least squares (OLS) coefficients are presented for the independent variables corresponding to the dependent variables 'GammaG', 'GammaB', and 'DeltaGvsB'. These variables represent the preferences for the Green project, Brown project, and the net Green project preference, respectively. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Treatment' variable is a binary indicator, taking the value of 1 for Treatment 1 and 0 for Treatment 0. The 'Professional' variable is a dummy variable that takes the value of 1 for professionals and 0 for students. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

Table 5 presents the regressions of the preferences by treatment groups. We observe that the preference for the Green project is significantly related to the Professional variable in Treatment 0, meaning that professionals are more sensitive to the Green project than students (Hypothesis 3.b). Interestingly the negative coefficient for the variable Professional in regression (5) demonstrates that students (professionals) more (dis)like the Brown project than professionals (students) under Treatment 1 (Hypothesis 3.a).

Table 5: Regressions of project preferences by Treatment groups

| | Treatment 0 subsample | | | Treatment 1 subsample | | |
|---|---|---|---|---|---|---|
| | (1) GammaG | (2) GammaB | (3) DeltaGvsB | (4) GammaG | (5) GammaB | (6) DeltaGvsB |
| Bret score | −0.0019 | 0.0042 | −0.0061* | −0.0011 | −0.0084 | 0.0074 |
| | (0.0029) | (0.0029) | (0.0031) | (0.0018) | (0.0074) | (0.0070) |
| Nep score | −0.0002 | −0.0499** | 0.0497*** | 0.0022 | −0.0398 | 0.0420 |
| | (0.0097) | (0.0163) | (0.0140) | (0.0071) | (0.0252) | (0.0236) |
| Gender | 0.1838 | 0.2262 | −0.0424 | 0.1635 | 0.1803 | −0.0168 |
| | (0.1382) | (0.1361) | (0.1676) | (0.1310) | (0.4610) | (0.4271) |
| Income | 0.0174 | 0.0520 | −0.0345 | −0.0188 | 0.2153 | −0.2341 |
| | (0.0444) | (0.0591) | (0.0596) | (0.0350) | (0.2341) | (0.2245) |
| Professional | 0.4375** | 0.3073 | 0.1302 | 0.2506 | −1.0286* | 1.2792** |
| | (0.1633) | (0.2034) | (0.1969) | (0.1462) | (0.4951) | (0.4708) |
| Constant | 0.1896 | 2.1119* | −1.9223* | 0.2889 | 2.6340 | −2.3451 |
| | (0.5654) | (0.9375) | (0.8103) | (0.3799) | (1.4105) | (1.3082) |
| Observations | 195 | 195 | 195 | 163 | 163 | 163 |
| Adjusted $R^2$ | 0.0314 | 0.0714 | 0.0722 | 0.0013 | 0.0338 | 0.0612 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table 5, robust ordinary least squares (OLS) coefficients are presented for the independent variables corresponding to the dependent variables 'GammaG', 'GammaB', and 'DeltaGvsB'. These variables represent the preferences for the Green project, Brown project, and the net Green project preference, respectively. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Professional' variable is a dummy variable that takes the value of 1 for professionals and 0 for students. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

While the preferences of students for both projects are associated with the Treatment, as indicated in Table 6, it is noteworthy that the net preference for the Green project (DetaGvsB) appears to be unrelated to any variable. This observation partially corroborates Hypothesis 2.b suggesting a stronger inclination for the return's project than its color. No other variable exhibits a significant relationship with the project preferences of students.

The preferences of professionals do not directly correlate with the Treatment, as outlined in Table 6. However, the net preference for the Green project (DetaGvsB) consistently exhibits a positive correlation with their Nep Score. Similarly, the net preference for the Brown

project is inversely related to their Nep Score. These findings invalidate Hypothesis 2.a, affirming that professionals' preferences are influenced by higher project profitability.

Table 6: Regressions of project preferences by Subject groups

| | Students subsample | | | Professionals subsample | | |
|---|---|---|---|---|---|---|
| | (1) GammaG | (2) GammaB | (3) DeltaGvsB | (4) GammaG | (5) GammaB | (6) DeltaGvsB |
| Treatment | 0.2366* | 0.6901** | −0.4535 | 0.0377 | −0.3293 | 0.3670 |
| | (0.1077) | (0.2570) | (0.2477) | (0.1862) | (0.3676) | (0.3534) |
| Bret score | 0.0007 | 0.0015 | −0.0007 | −0.0051 | −0.0025 | −0.0027 |
| | (0.0022) | (0.0052) | (0.0052) | (0.0030) | (0.0052) | (0.0053) |
| Nep score | −0.0038 | −0.0227 | 0.0189 | 0.0118 | −0.0912* | 0.1030*** |
| | (0.0066) | (0.0122) | (0.0118) | (0.0157) | (0.0354) | (0.0289) |
| Gender | 0.1423 | 0.0612 | 0.0812 | 0.2603 | 0.4510 | −0.1907 |
| | (0.1085) | (0.2548) | (0.2515) | (0.1900) | (0.3873) | (0.3677) |
| Income | 0.0145 | 0.2783 | −0.2638 | −0.0009 | −0.0376 | 0.0367 |
| | (0.0321) | (0.2287) | (0.2184) | (0.0449) | (0.0874) | (0.0943) |
| Constant | 0.3116 | 0.6132 | −0.3017 | 0.0444 | 5.0046* | −4.9601** |
| | (0.4051) | (0.7278) | (0.7114) | (0.9154) | (2.1209) | (1.6649) |
| Observations | 227 | 227 | 227 | 131 | 131 | 131 |
| Adjusted $R^2$ | 0.0046 | 0.0585 | 0.0419 | −0.0010 | 0.0668 | 0.0873 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table 6, robust ordinary least squares (OLS) coefficients are presented for the independent variables corresponding to the dependent variables 'GammaG', 'GammaB', and 'DeltaGvsB'. These variables represent the preferences for the Green project, Brown project, and the net Green project preference, respectively. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Treatment' variable is a binary indicator, taking the value of 1 for Treatment 1 and 0 for Treatment 0. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

### 3.2.2 Subjects' project investment

In Table 7, it is observed that the investment in both projects demonstrates a consistent pattern with their corresponding preferences (Table 4). The treatment effect, represented by the Treatment variable, is significant for the investment in the Brown project. The professional dummy variable (Professional) indicates that professionals exhibit a greater propensity to invest in the Green project, thereby confirming Hypothesis 3.b. Furthermore, the Nep Score consistently shows a negative relationship with investment in the Brown project.

Table 7: Regression of projects' investment - Whole sample

| | (1) InvG | (2) InvB | (3) InvGminusInvB |
|---|---|---|---|
| Treatment | 0.0885 | 0.1874* | −0.0988 |
| | (0.0924) | (0.0895) | (0.1035) |
| Bret score | −0.0014 | −0.0006 | −0.0007 |
| | (0.0014) | (0.0015) | (0.0016) |
| Nep score | 0.0005 | −0.0231** | 0.0235*** |
| | (0.0050) | (0.0074) | (0.0066) |
| Gender | 0.1539 | 0.1150 | 0.0389 |
| | (0.0867) | (0.0837) | (0.0971) |
| Income | −0.0062 | 0.0617 | −0.0679 |
| | (0.0267) | (0.0497) | (0.0481) |
| Professional | 0.2915** | −0.0791 | 0.3705** |
| | (0.1007) | (0.1114) | (0.1221) |
| Constant | 0.0816 | 1.0905* | −1.0089** |
| | (0.2885) | (0.4401) | (0.3886) |
| Observations | 358 | 358 | 358 |
| Adjusted $R^2$ | 0.0224 | 0.0440 | 0.0597 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table 7, robust ordinary least squares (OLS) are presented for the independent variables associated with the dependent variables 'InvG', 'InvB', and 'InvGminusInvB', the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project, and the difference between both, respectively. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Treatment' variable is a binary indicator, taking the value of 1 for Treatment 1 and 0 for Treatment 0. The 'Professional' variable is a dummy variable that takes the value of 1 for professionals and 0 for students. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

The results of regression coefficients for projects' investment in each Treatment (Table 8) are similar to those in Table 5. However, we note that the professional coefficient is no longer significant in the regression (5). This observation tends to demonstrate that the proportions invested in projects are weak proxies to gauge the subjects' preferences when the projects exhibit different risks and returns.

Table 8: Regressions of project investments by Treatment groups

| | Treatment 0 subsample | | | Treatment 1 subsample | | |
|---|---|---|---|---|---|---|
| | (1) InvG | (2) InvB | (3) InvGminusInvB | (4) InvG | (5) InvB | (6) InvGminusInvB |
| Bret score | −0.0011 | 0.0024 | −0.0035 | −0.0015 | −0.0027 | 0.0012 |
| | (0.0017) | (0.0017) | (0.0018) | (0.0023) | (0.0025) | (0.0029) |
| Nep score | −0.0005 | −0.0299** | 0.0294*** | 0.0029 | −0.0141 | 0.0170 |
| | (0.0058) | (0.0103) | (0.0086) | (0.0091) | (0.0088) | (0.0101) |
| Gender | 0.1080 | 0.1253 | −0.0173 | 0.2114 | 0.0822 | 0.1293 |
| | (0.0818) | (0.0803) | (0.0994) | (0.1688) | (0.1640) | (0.1819) |
| Income | 0.0121 | 0.0325 | −0.0204 | −0.0231 | 0.0811 | −0.1042 |
| | (0.0262) | (0.0358) | (0.0358) | (0.0451) | (0.0859) | (0.0821) |
| Professional | 0.2667** | 0.1883 | 0.0784 | 0.3197 | −0.3481 | 0.6678** |
| | (0.0965) | (0.1248) | (0.1191) | (0.1885) | (0.1772) | (0.2149) |
| Constant | 0.1418 | 1.2935* | −1.1517* | 0.0187 | 0.9322 | −0.9135 |
| | (0.3396) | (0.5908) | (0.4978) | (0.4844) | (0.4883) | (0.5370) |
| Observations | 195 | 195 | 195 | 163 | 163 | 163 |
| Adjusted $R^2$ | 0.0339 | 0.0680 | 0.0680 | 0.0011 | 0.0314 | 0.0687 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table 8, robust ordinary least squares (OLS) are presented for the independent variables associated with the dependent variables 'InvG', 'InvB', and 'InvGminusInvB', the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project, and the difference between both, respectively. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Professional' variable is a dummy variable that takes the value of 1 for professionals and 0 for students. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

In Table 9, we observe a quite similar pattern between the investment choices of students and their project preferences (Table 6). Notably, a pronounced treatment effect emerges. Under Treatment 1, students are more inclined to invest in the Brown project. This result implies that students are more responsive to the project's return than its color, aligning with the expectations outlined in Hypothesis 2.b. No treatment effect appears for Professionals. The significance of their investment in projects is notably linked to their expressed preferences (Nep score). Noteworthy is the contrast with students, as the professionals' investment in the Brown project remains unaffected by its return, evidenced by the non-significant Treatment

variable. This compelling evidence invalidates Hypothesis 2.a.

Table 9: Regressions of project investments by Subject groups

| | Students subsample | | | Professionals subsample | | |
|---|---|---|---|---|---|---|
| | (1) InvG | (2) InvB | (3) InvGminusInvB | (4) InvG | (5) InvB | (6) InvGminusInvB |
| Treatment | 0.0878 | 0.3475*** | −0.2597* | 0.1171 | −0.0506 | 0.1677 |
| | (0.1029) | (0.0975) | (0.1109) | (0.1842) | (0.1633) | (0.2070) |
| Bret score | 0.0003 | 0.0016 | −0.0013 | −0.0039 | −0.0005 | −0.0034 |
| | (0.0017) | (0.0021) | (0.0022) | (0.0024) | (0.0021) | (0.0027) |
| Nep score | −0.0016 | −0.0110* | 0.0094 | 0.0068 | −0.0489* | 0.0557*** |
| | (0.0048) | (0.0051) | (0.0055) | (0.0124) | (0.0201) | (0.0164) |
| Gender | 0.1158 | 0.0301 | 0.0857 | 0.2431 | 0.2492 | −0.0061 |
| | (0.0937) | (0.0978) | (0.1105) | (0.1797) | (0.1584) | (0.1907) |
| Income | 0.0094 | 0.1054 | −0.0959 | −0.0103 | −0.0014 | −0.0089 |
| | (0.0305) | (0.0848) | (0.0734) | (0.0434) | (0.0359) | (0.0548) |
| Constant | 0.1409 | 0.2588 | −0.1179 | 0.0570 | 2.6465* | −2.5895** |
| | (0.2867) | (0.3050) | (0.3273) | (0.7186) | (1.2243) | (0.9531) |
| Observations | 227 | 227 | 227 | 131 | 131 | 131 |
| Adjusted $R^2$ | −0.0135 | 0.0817 | 0.0470 | −0.0050 | 0.0738 | 0.0694 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table 9, robust ordinary least squares (OLS) are presented for the independent variables associated with the dependent variables 'InvG', 'InvB', and 'InvGminusInvB', the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project, and the difference between both, respectively. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Treatment' variable is a binary indicator, taking the value of 1 for Treatment 1 and 0 for Treatment 0. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

### 3.2.3 Robustness check

The key findings from Section 3 are robustly supported by various sensitivity analyses. Appendix A displays the results of these supplementary analyses.

A critical assumption arises from the model in Equation 18 to deduct the parameters $\alpha$ and $\beta$. To overcome the determination of these parameters, we estimated the project

preference, $\gamma^{'}$, by standardizing $\gamma$ by $\alpha$. The Equation 22 becomes:

$$\gamma_{k,A}^{'} = \frac{\hat{x}_{k,A} \times 1/S_k \times 2\sigma_A^2 - \pi_A}{0.5}. \tag{27}$$

$\gamma_{k,A}^{'}$ can be calculated without knowing $\alpha$ nor $\beta$. Table A4 presents the results of the regressions with this modified variable. They all are consistent with our main findings.

Because the subjects can not invest a wealth proportion less than 0 or over than 1 in the experiment, the proportions invested and the derived preferences may be censored either on the left side, the right side, or both. Consequently, we duplicate all the regressions performed in Section 3.2 by using a Tobit regression methodology applying the relevant limits. The results displayed in Table A5 and Table A6 remain strongly consistent with our previous regressions.

We implemented ordered Logit regressions on the preference variables converted into five categorical variables to neutralize the variance effect of the data. Table A7 displays the coefficients of this alternative test. The results remain similar.

Many of our results converge to demonstrate that students' preference for the Brown project increases in Treatment 1 and is higher than the one of professionals. We interpreted this key finding by arguing that students are more sensitive to the project's return than its color. An alternative explanation would be that some students lack the cognitive ability to solve complex problems. In other words, some students would be unable to perform a con-

sistent choice in Treatment 1 because of the complexity of endowing different projects with different returns and risks. If this explanation holds, we should observe a different behavior of the students according to their study level and study field. These study's variables should alleviate the treatment effect for the Brown project. Table A8 shows that study's variables do not weaken the treatment effect of the Brown project for the students' sample (regression (5)). Despite the inclusion of these variables, the student's preferences for the Brown project are more pronounced than those of professionals in Treatment 1 (regression (2)). This last test reinforces the validation of the Hypothesis 3.a.

Altogether, these supplementary analyses confirm our earlier conclusions:

- The preference for the Green project is demonstrated for all subjects' groups.
- The treatment effect is apparent for the students' group whose preference for the Brown project is higher under Treatment 1.
- Professionals' preference for the Green project is more persistent than Students whatever the treatment.
- Professionals' preference for the Brown project is less pronounced than students' one under Treatment 1.

# 4 Discussion and conclusion

## 4.1 Findings and interpretation

Our experiment collected data on eco-responsible investment behavior from 131 financial professionals and 227 students, leading to the following key findings:

**1. Effect of Project Labels (Hypothesis 1 validated):** Both financial professionals and students exhibit a preference for the Green project over the Brown project when all other factors are held constant. This aligns with the findings of Bonnefon et al. (2022), suggesting a general valuation of projects delivering positive externalities over those delivering negative externalities. Importantly, our research extends this result to financial professionals, contributing novel insights to the existing literature.

**2. Sensitivity to Financial Performance (Hypothesis 2.a not validated, and Hypothesis 2.b validated):** Unlike professionals, students adjust their investment preferences when the Brown project becomes more profitable and more risky than the Green project. This shift in profitability diminishes the label effect for students, highlighting their heightened sensitivity to financial performance compared to professionals.

The results for financial professionals are consistent with the empirical study by Riedl and Smeets (2017), which indicates that investors are willing to accept financial underperformance to align with their moral values.

In reviewing potential mechanisms supporting our findings, existing literature suggests two noteworthy pathways: (1) individuals engaged in socially responsible causes may experience an enhancement in well-being through factors such as self-image (Lyubomirsky et al.,

2005; Otake et al., 2006; Dunn et al., 2008; Aknin et al., 2013) or intrinsic motivation (Grant, 2008); and (2) studies propose that acts of kindness and replicating positive emotional states contribute to increased well-being (Otake et al., 2006; Hofmann et al., 2011), evidenced by changes in brain structure (Garrison et al., 2014). These mechanisms provide valuable insights into the motivations behind the observed behaviors of both financial professionals and students in the context of eco-responsible investments.

The results for students align more closely with the conventional rational selfish model of economic behavior, known as homo oeconomicus, where individuals aim to maximize their profits. This finding is consistent with Brodback et al. (2022), who observed price discounting for projects generating positive externalities when their financial performance was poor. Additionally, it corresponds with studies indicating that participants in laboratory experiments often engage with the objective of earning money, providing a plausible explanation for the observed behavior in the student group compared to financial professionals (Slonim et al., 2013; Abeler and Nosenzo, 2015).

Notably, our study, to the best of our knowledge, is the first to experimentally identify this difference in pro-social preferences between financial professionals and students. Our model allowed for the isolation of return and risk factors to implement subjects' preferences in the project color.

**3. Professionals' preference vs Students (Hypothesis 3.a validated and Hypothesis 3.b validated):** The results consistently indicate that the preference for the Green project is stronger among professionals than students. The professionals' preference for the Brown project is also weaker than the students' one. This finding aligns with the research of Matsumoto et al. (2016), which suggests that prosocial behaviors tend to increase with age

beyond early adulthood. It also corroborates existing literature highlighting differences in economic behaviors between professionals and students (Haigh and List, 2005, Cohn et al., 2014, Kirchler et al., 2018). These insights contribute to a deeper understanding of the nuanced factors influencing eco-responsible investment preferences across different demographic groups.

## 4.2 Implications and conclusion

Our research significantly contributes to enhancing our understanding of pro-environmental investment preferences among investors. Notably, we conduct a lab-in-the-field experiment encompassing financial professionals, a realistic demographic, and students. From an augmented mu-sigma model, we infer subjects' externality preferences using empirical data collected from the experiment. This innovative approach allows us to assess the impact of project labels and changes in returns on externality preferences and investment decisions. Our key findings shed light on several crucial aspects:

**Label Effect on Capital Attraction:** The Green label has a compelling influence on attracting capital from professional investors, even when it yields significantly lower returns. This insight suggests a practical application for business owners, emphasizing the incorporation of Corporate Social Responsibility (CSR) into their business models as a means to attract more funding for their projects.

**Divergent Pro-Environmental Preferences:** Our results highlight disparities in pro-environmental preferences between financial professionals and students. While some studies

have suggested similarities in economic behaviors between these groups, our research underscores the inconsistency of this assumption, particularly concerning socially responsible preferences, especially in the context of varying financial project performances.

**Alignment with Empirical Studies:** Our findings align with previous empirical studies indicating that socially responsible projects garner more capital from professional investors compared to Neutral and socially irresponsible projects, even when the latter are more profitable. This insight provides valuable encouragement for business owners to adopt socially responsible practices, especially considering recent surveys demonstrating leaders' focus on CSR for income generation, customer satisfaction, and investor appeal (Deloitte, 2020).

Looking ahead, our study could serve as inspiration for future research exploring the impact of professional investors' preferences on the pricing dynamics of socially responsible projects. Given the heightened attention and capital allocation to socially responsible projects by professional investors, examining whether this trend results in a virtuous circle, encouraging more managers and owners to implement Green projects, or potentially leads to a price bubble that could impact investors' wealth would be a fascinating avenue for further exploration.

During the preparation of this work the authors used Chat-GPT from openAI in order to proofread of the document. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

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the content as needed and take full responsibility for the content of the publication.

# Appendix A Supplemental tables

Table A1: Descriptive statistics - Whole sample

| Variables | Mean | Median | St. Dev. | Min | Max |
|---|---|---|---|---|---|
| | Whole sample (obs.=358) | | | | |
| *Controls* | | | | | |
| Bret score | 37.49 | 35.00 | 22.95 | 0.00 | 100.00 |
| Nep score | 56.88 | 57.50 | 6.96 | 31.00 | 73.00 |
| Gender | 0.47 | 0.00 | 0.50 | 0.00 | 1.00 |
| Income | 1.09 | 0.00 | 1.55 | 0.00 | 7.00 |
| Age | 31.22 | 25.00 | 12.01 | 17.00 | 69.00 |
| *Preferences* | | | | | |
| S (Alpha/Beta) | 4.60 | 4.08 | 2.04 | 0.58 | 8.17 |
| GammaG | 0.44 | 0.27 | 0.91 | −1.91 | 5.66 |
| GammaB | −0.15 | −0.03 | 1.98 | −3.47 | 16.08 |
| DeltaGvsB | 0.59 | 0.32 | 1.93 | −15.04 | 7.62 |
| *Investment* | | | | | |
| InvG | 0.27 | 0.00 | 0.82 | −1.00 | 7.00 |
| InvB | −0.07 | 0.00 | 0.85 | −1.00 | 8.00 |
| InvGminusInvB | 0.33 | 0.00 | 0.98 | −5.00 | 7.00 |
| | Treatment 0 (obs.=195) | | | | |
| *Controls* | | | | | |
| Bret score | 38.25 | 35.00 | 23.29 | 0.00 | 100.00 |
| Nep score | 56.61 | 57.00 | 7.38 | 31.00 | 73.00 |
| Gender | 0.51 | 1.00 | 0.50 | 0.00 | 1.00 |
| Income | 1.01 | 0.00 | 1.44 | 0.00 | 7.00 |
| Age | 30.86 | 25.00 | 11.80 | 17.00 | 69.00 |
| *Preferences* | | | | | |
| S (Alpha/Beta) | 4.69 | 4.08 | 2.05 | 0.58 | 8.17 |
| GammaG | 0.38 | 0.00 | 0.98 | −1.91 | 4.62 |
| GammaB | −0.28 | 0.00 | 1.28 | −1.91 | 12.31 |
| DeltaGvsB | 0.65 | 0.31 | 1.28 | −7.70 | 5.76 |
| *Investment* | | | | | |
| InvG | 0.23 | 0.00 | 0.59 | −1.00 | 3.00 |
| InvB | −0.15 | 0.00 | 0.78 | −1.00 | 8.00 |
| InvGminusInvB | 0.38 | 0.17 | 0.77 | −5.00 | 3.50 |
| | Treatment 1 (obs.=163) | | | | |
| *Controls* | | | | | |
| Bret score | 36.59 | 35.00 | 22.59 | 0.00 | 100.00 |
| Nep score | 57.20 | 58.00 | 6.42 | 40.00 | 70.00 |
| Gender | 0.42 | 0.00 | 0.50 | 0.00 | 1.00 |
| Income | 1.20 | 0.00 | 1.66 | 0.00 | 7.00 |
| Age | 31.65 | 26.00 | 12.27 | 18.00 | 69.00 |
| *Preferences* | | | | | |
| S (Alpha/Beta) | 4.50 | 4.08 | 2.03 | 0.58 | 8.17 |
| GammaG | 0.52 | 0.29 | 0.80 | −0.54 | 5.66 |
| GammaB | −0.00 | −0.03 | 2.58 | −3.47 | 16.08 |
| DeltaGvsB | 0.52 | 0.32 | 2.49 | −15.04 | 7.62 |
| *Investment* | | | | | |
| InvG | 0.31 | 0.00 | 1.03 | −1.00 | 7.00 |
| InvB | 0.03 | 0.00 | 0.92 | −1.00 | 6.00 |
| InvGminusInvB | 0.28 | 0.00 | 1.18 | −5.00 | 7.00 |

*Notes:* In Table A1, the mean, median, standard deviation, min, and max of collected data are depicted for the whole sample (Whole), Treatment 0 sample (Treatment 0), and Treatment 1 sample (Treatment 1). The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level. 'Age' is the age of the subjects. The risk attitude of investors is characterized by the variable '$S$' (Alpha/Beta). 'GammaG', 'GammaB', and 'DeltaGvsB' represent the Green project, Brown project, and the net Green project preferences, respectively. 'InvG' ('InvB') is the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project. 'InvGminusInvB' is the difference between 'InvG' and 'InvB'.

Table A2: Descriptive statistics - Students' sample

| Variables | Mean | Median | St. Dev. | Min | Max |
|---|---|---|---|---|---|
| All students (obs.=227) | | | | | |
| *Controls* | | | | | |
| Bret score | 39.92 | 40.00 | 21.27 | 0.00 | 100.00 |
| Nep score | 56.69 | 58.00 | 7.17 | 31.00 | 71.00 |
| Gender | 0.54 | 1.00 | 0.50 | 0.00 | 1.00 |
| Income | 0.86 | 0.00 | 1.36 | 0.00 | 7.00 |
| Age | 23.99 | 23.00 | 5.11 | 17.00 | 69.00 |
| *Preferences* | | | | | |
| S (Alpha/Beta) | 4.76 | 4.08 | 2.00 | 0.58 | 8.17 |
| GammaG | 0.32 | 0.16 | 0.80 | −1.91 | 5.66 |
| GammaB | −0.03 | −0.03 | 1.94 | −3.47 | 16.08 |
| DeltaGvsB | 0.35 | 0.30 | 1.87 | −15.04 | 5.76 |
| *Investment* | | | | | |
| InvG | 0.17 | 0.00 | 0.71 | −1.00 | 7.00 |
| InvB | −0.04 | 0.00 | 0.76 | −1.00 | 6.00 |
| InvGminusInvB | 0.21 | 0.00 | 0.83 | −5.00 | 4.00 |
| Treatment 0 (obs.=125) | | | | | |
| *Controls* | | | | | |
| Bret score | 42.76 | 45.00 | 21.91 | 1.00 | 100.00 |
| Nep score | 56.54 | 58.00 | 7.68 | 31.00 | 71.00 |
| Gender | 0.58 | 1.00 | 0.50 | 0.00 | 1.00 |
| Income | 0.77 | 0.00 | 1.26 | 0.00 | 7.00 |
| Age | 23.64 | 23.00 | 4.24 | 17.00 | 48.00 |
| *Preferences* | | | | | |
| S (Alpha/Beta) | 5.02 | 4.67 | 1.98 | 1.17 | 8.17 |
| GammaG | 0.22 | 0.00 | 0.86 | −1.91 | 4.11 |
| GammaB | −0.36 | 0.00 | 0.80 | −1.91 | 1.74 |
| DeltaGvsB | 0.58 | 0.00 | 1.07 | −1.74 | 5.76 |
| *Investment* | | | | | |
| InvG | 0.13 | 0.00 | 0.51 | −1.00 | 2.50 |
| InvB | −0.20 | 0.00 | 0.46 | −1.00 | 1.00 |
| InvGminusInvB | 0.34 | 0.00 | 0.63 | −1.00 | 3.50 |
| Treatment 1 (obs.=102) | | | | | |
| *Controls* | | | | | |
| Bret score | 36.44 | 40.00 | 20.01 | 0.00 | 90.00 |
| Nep score | 56.86 | 57.00 | 6.52 | 40.00 | 70.00 |
| Gender | 0.50 | 0.50 | 0.50 | 0.00 | 1.00 |
| Income | 0.97 | 0.00 | 1.47 | 0.00 | 7.00 |
| Age | 24.42 | 23.00 | 6.01 | 18.00 | 69.00 |
| *Preferences* | | | | | |
| S (Alpha/Beta) | 4.45 | 4.08 | 1.99 | 0.58 | 8.17 |
| GammaG | 0.44 | 0.28 | 0.70 | −0.54 | 5.66 |
| GammaB | 0.36 | −0.03 | 2.71 | −3.47 | 16.08 |
| DeltaGvsB | 0.08 | 0.31 | 2.50 | −15.04 | 4.72 |
| *Investment* | | | | | |
| InvG | 0.21 | 0.00 | 0.90 | −1.00 | 7.00 |
| InvB | 0.15 | 0.00 | 0.98 | −1.00 | 6.00 |
| InvGminusInvB | 0.06 | 0.00 | 1.00 | −5.00 | 4.00 |

*Notes:* In Table A2, the mean, median, standard deviation, min, and max of collected data are depicted for the Students' sample (All students), Treatment 0 students' subsample (Treatment 0), and Treatment 1 students' subsample (Treatment 1). The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level. 'Age' is the age of the subjects. The risk attitude of investors is characterized by the variable '$S$' (Alpha/Beta). 'GammaG', 'GammaB', and 'DeltaGvsB' represent the Green project, Brown project, and the net Green project preferences, respectively. 'InvG' ('InvB') is the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project. 'InvGminusInvB' is the difference between 'InvG' and 'InvB'.

Table A3: Descriptive statistics - Professionals' sample

| Variables | Mean | Median | St. Dev. | Min | Max |
|---|---|---|---|---|---|
| All professionals (obs.=131) | | | | | |
| *Controls* | | | | | |
| Bret score | 33.29 | 30.00 | 25.16 | 0.00 | 100.00 |
| Nep score | 57.21 | 57.00 | 6.59 | 43.00 | 73.00 |
| Gender | 0.34 | 0.00 | 0.48 | 0.00 | 1.00 |
| Income | 1.50 | 1.00 | 1.76 | 0.00 | 6.00 |
| Age | 43.74 | 43.00 | 10.06 | 25.00 | 69.00 |
| *Preferences* | | | | | |
| S (Alpha/Beta) | 4.32 | 4.08 | 2.09 | 0.58 | 8.17 |
| GammaG | 0.65 | 0.41 | 1.03 | −1.88 | 4.91 |
| GammaB | −0.35 | −0.51 | 2.05 | −3.47 | 12.31 |
| DeltaGvsB | 1.00 | 0.82 | 1.97 | −7.70 | 7.62 |
| *Investment* | | | | | |
| InvG | 0.44 | 0.20 | 0.95 | −1.00 | 6.00 |
| InvB | −0.11 | −0.20 | 1.00 | −1.00 | 8.00 |
| InvGminusInvB | 0.55 | 0.38 | 1.16 | −5.00 | 7.00 |
| Treatment 0 (obs.=70) | | | | | |
| *Controls* | | | | | |
| Bret score | 30.20 | 25.00 | 23.65 | 0.00 | 100.00 |
| Nep score | 56.71 | 57.00 | 6.87 | 43.00 | 73.00 |
| Gender | 0.39 | 0.00 | 0.49 | 0.00 | 1.00 |
| Income | 1.44 | 1.00 | 1.63 | 0.00 | 6.00 |
| Age | 43.74 | 43.50 | 9.83 | 25.00 | 69.00 |
| *Preferences* | | | | | |
| S (Alpha/Beta) | 4.09 | 3.50 | 2.06 | 0.58 | 8.17 |
| GammaG | 0.66 | 0.57 | 1.12 | −1.88 | 4.62 |
| GammaB | −0.12 | 0.00 | 1.85 | −1.91 | 12.31 |
| DeltaGvsB | 0.78 | 0.57 | 1.59 | −7.70 | 4.11 |
| *Investment* | | | | | |
| InvG | 0.40 | 0.33 | 0.67 | −0.99 | 3.00 |
| InvB | −0.05 | 0.00 | 1.16 | −1.00 | 8.00 |
| InvGminusInvB | 0.45 | 0.33 | 0.97 | −5.00 | 2.50 |
| Treatment 1 (obs.=61) | | | | | |
| *Controls* | | | | | |
| Bret score | 36.84 | 30.00 | 26.53 | 0.00 | 100.00 |
| Nep score | 57.77 | 58.00 | 6.27 | 43.00 | 69.00 |
| Gender | 0.30 | 0.00 | 0.46 | 0.00 | 1.00 |
| Income | 1.57 | 1.00 | 1.90 | 0.00 | 6.00 |
| Age | 43.74 | 43.00 | 10.40 | 25.00 | 68.00 |
| *Preferences* | | | | | |
| S (Alpha/Beta) | 4.59 | 4.08 | 2.12 | 1.17 | 8.17 |
| GammaG | 0.65 | 0.39 | 0.93 | −0.54 | 4.91 |
| GammaB | −0.61 | −0.81 | 2.24 | −3.47 | 10.72 |
| DeltaGvsB | 1.26 | 1.44 | 2.31 | −7.35 | 7.62 |
| *Investment* | | | | | |
| InvG | 0.48 | 0.14 | 1.20 | −1.00 | 6.00 |
| InvB | −0.18 | −0.25 | 0.78 | −1.00 | 4.00 |
| InvGminusInvB | 0.66 | 0.43 | 1.35 | −1.57 | 7.00 |

*Notes:* In Table A3, the mean, median, standard deviation, min, and max of collected data are depicted for the Students' sample (All professionals), Treatment 0 professionals' subsample (Treatment 0), and Treatment 1 professionals' subsample (Treatment 1). The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level. 'Age' is the age of the subjects. The risk attitude of investors is characterized by the variable '$S$' (Alpha/Beta). 'GammaG', 'GammaB', and 'DeltaGvsB' represent the Green project, Brown project, and the net Green project preferences, respectively. 'InvG' ('InvB') is the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project. 'InvGminusInvB' is the difference between 'InvG' and 'InvB'.

Table A4: Regression of project standardized preferences - All samples

| | Whole | | | Students | | | Professionals | | |
|---|---|---|---|---|---|---|---|---|---|
| | (1) GammaGstand | (2) GammaBstand | (3) DeltaGvsBstand | (4) GammaGstand | (5) GammaBstand | (6) DeltaGvsBstand | (7) GammaGstand | (8) GammaBstand | (9) DeltaGvsBstand |
| Treatment | 0.1636 | 0.2874 | −0.1237 | 0.2388* | 0.6258** | −0.3870 | 0.0702 | −0.2460 | 0.3163 |
| | (0.0891) | (0.1924) | (0.1822) | (0.1002) | (0.2271) | (0.2170) | (0.1748) | (0.3250) | (0.3135) |
| Bret score | −0.0018 | −0.0024 | 0.0006 | 0.0006 | 0.0014 | −0.0008 | −0.0047 | −0.0015 | −0.0032 |
| | (0.0016) | (0.0031) | (0.0031) | (0.0020) | (0.0046) | (0.0045) | (0.0026) | (0.0042) | (0.0044) |
| Nep score | −0.0002 | −0.0389** | 0.0387*** | −0.0032 | −0.0193 | 0.0161 | 0.0090 | −0.0843* | 0.0932*** |
| | (0.0061) | (0.0127) | (0.0109) | (0.0058) | (0.0106) | (0.0102) | (0.0148) | (0.0331) | (0.0263) |
| Gender | 0.1608 | 0.2071 | −0.0462 | 0.1304 | 0.0633 | 0.0671 | 0.2432 | 0.4124 | −0.1692 |
| | (0.0888) | (0.1881) | (0.1818) | (0.0992) | (0.2250) | (0.2210) | (0.1779) | (0.3395) | (0.3219) |
| Income | 0.0001 | 0.1323 | −0.1321 | 0.0129 | 0.2596 | −0.2467 | 0.0002 | −0.0347 | 0.0349 |
| | (0.0259) | (0.1190) | (0.1143) | (0.0296) | (0.2091) | (0.1987) | (0.0420) | (0.0745) | (0.0823) |
| Professional | 0.3306** | −0.2931 | 0.6237** | | | | | | |
| | (0.1002) | (0.2423) | (0.2302) | | | | | | |
| Constant | 0.2250 | 1.9397** | −1.7147** | 0.2700 | 0.4926 | −0.2226 | 0.1427 | 4.6416* | −4.4989** |
| | (0.3563) | (0.7413) | (0.6316) | (0.3605) | (0.6272) | (0.6176) | (0.8660) | (1.9885) | (1.5187) |
| Observations | 358 | 358 | 358 | 227 | 227 | 227 | 131 | 131 | 131 |
| Adjusted $R^2$ | 0.0363 | 0.0322 | 0.0514 | 0.0085 | 0.0626 | 0.0447 | −0.0035 | 0.0679 | 0.0891 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table A4, robust ordinary least squares (OLS) coefficients are presented for the independent variables corresponding to the dependent variables 'GammaG', 'GammaB', and 'DeltaGvsB'. These variables represent the preferences for the Green project, Brown project, and the net Green project preference, respectively. They have been standardized by their respective $\alpha$ (Section 3.2.3, Equation 27). The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Treatment' variable is a binary indicator, taking the value of 1 for Treatment 1 and 0 for Treatment 0. The 'Professional' variable is a dummy variable that takes the value of 1 for professionals and 0 for students. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

Table A5: Tobit regressions of project preferences - All samples

| | Whole | | | Students | | | Professionals | | |
|---|---|---|---|---|---|---|---|---|---|
| | (1) GammaG | (2) GammaB | (3) DeltaGvsB | (4) GammaG | (5) GammaB | (6) DeltaGvsB | (7) GammaG | (8) GammaB | (9) DeltaGvsB |
| Treatment | 0.1495 | 0.2937 | −0.1442 | 0.2366* | 0.6901** | −0.4535 | 0.0377 | −0.3293 | 0.3670 |
| | (0.0944) | (0.2147) | (0.2045) | (0.1065) | (0.2541) | (0.2449) | (0.1826) | (0.3605) | (0.3465) |
| Bret score | −0.0019 | −0.0031 | 0.0012 | 0.0007 | 0.0015 | −0.0007 | −0.0051 | −0.0025 | −0.0027 |
| | (0.0018) | (0.0036) | (0.0036) | (0.0022) | (0.0052) | (0.0051) | (0.0029) | (0.0051) | (0.0052) |
| Nep score | 0.0001 | −0.0436** | 0.0437*** | −0.0038 | −0.0227 | 0.0189 | 0.0118 | −0.0912** | 0.1030*** |
| | (0.0066) | (0.0138) | (0.0122) | (0.0065) | (0.0121) | (0.0117) | (0.0154) | (0.0348) | (0.0284) |
| Gender | 0.1733 | 0.2193 | −0.0460 | 0.1423 | 0.0612 | 0.0812 | 0.2603 | 0.4510 | −0.1907 |
| | (0.0953) | (0.2119) | (0.2056) | (0.1073) | (0.2520) | (0.2487) | (0.1863) | (0.3798) | (0.3605) |
| Income | −0.0008 | 0.1410 | −0.1418 | 0.0145 | 0.2783 | −0.2638 | −0.0009 | −0.0376 | 0.0367 |
| | (0.0276) | (0.1296) | (0.1249) | (0.0317) | (0.2262) | (0.2159) | (0.0440) | (0.0857) | (0.0925) |
| Professional | 0.3541** | −0.3650 | 0.7191** | | | | | | |
| | (0.1069) | (0.2685) | (0.2560) | | | | | | |
| Constant | 0.2247 | 2.1852** | −1.9605** | 0.3116 | 0.6132 | −0.3017 | 0.0444 | 5.0046* | −4.9601** |
| | (0.3843) | (0.8074) | (0.7027) | (0.4006) | (0.7197) | (0.7034) | (0.8977) | (2.0797) | (1.6326) |
| Lower limit | −1.91 | −3.47 | −34.11 | −1.91 | −3.47 | −34.11 | −1.91 | −3.47 | −34.11 |
| Upper limit | 20 | 33.61 | 21.56 | 20 | 33.61 | 21.56 | 20 | 33.61 | 21.56 |
| Observations | 358 | 358 | 358 | 227 | 227 | 227 | 131 | 131 | 131 |
| Pseudo $R^2$ | 0.0193 | 0.0116 | 0.0169 | 0.0113 | 0.0199 | 0.0160 | 0.0132 | 0.0254 | 0.0312 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table A5, Tobit regression coefficients are presented for the independent variables corresponding to the dependent variables 'GammaG', 'GammaB', and 'DeltaGvsB'. These variables represent the preferences for the Green project, Brown project, and the net Green project preference, respectively. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Treatment' variable is a binary indicator, taking the value of 1 for Treatment 1 and 0 for Treatment 0. The 'Professional' variable is a dummy variable that takes the value of 1 for professionals and 0 for students. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

Table A6: Tobit regressions of project investments - All samples

| | Whole | | | Students | | | Professionals | | |
|---|---|---|---|---|---|---|---|---|---|
| | (1) InvG | (2) InvB | (3) InvGminusInvB | (4) InvG | (5) InvB | (6) InvGminusInvB | (7) InvG | (8) InvB | (9) InvGminusInvB |
| Treatment | 0.0885 | 0.1874* | −0.0988 | 0.0878 | 0.3475*** | −0.2597* | 0.1171 | −0.0506 | 0.1677 |
| | (0.0916) | (0.0887) | (0.1026) | (0.1017) | (0.0964) | (0.1097) | (0.1806) | (0.1602) | (0.2030) |
| Bret score | −0.0014 | −0.0006 | −0.0007 | 0.0003 | 0.0016 | −0.0013 | −0.0039 | −0.0005 | −0.0034 |
| | (0.0014) | (0.0015) | (0.0016) | (0.0016) | (0.0020) | (0.0022) | (0.0023) | (0.0021) | (0.0027) |
| Nep score | 0.0005 | −0.0231** | 0.0235*** | −0.0016 | −0.0110* | 0.0094 | 0.0068 | −0.0489* | 0.0557*** |
| | (0.0050) | (0.0073) | (0.0065) | (0.0048) | (0.0051) | (0.0054) | (0.0122) | (0.0197) | (0.0160) |
| Gender | 0.1539 | 0.1150 | 0.0389 | 0.1158 | 0.0301 | 0.0857 | 0.2431 | 0.2492 | −0.0061 |
| | (0.0859) | (0.0830) | (0.0962) | (0.0926) | (0.0967) | (0.1093) | (0.1763) | (0.1553) | (0.1870) |
| Income | −0.0062 | 0.0617 | −0.0679 | 0.0094 | 0.1054 | −0.0959 | −0.0103 | −0.0014 | −0.0089 |
| | (0.0265) | (0.0493) | (0.0477) | (0.0301) | (0.0838) | (0.0726) | (0.0425) | (0.0352) | (0.0538) |
| Professional | 0.2915** | −0.0791 | 0.3705** | | | | | | |
| | (0.0999) | (0.1104) | (0.1211) | | | | | | |
| Constant | 0.0816 | 1.0905* | −1.0089** | 0.1409 | 0.2588 | −0.1179 | 0.0570 | 2.6465* | −2.5895** |
| | (0.2861) | (0.4364) | (0.3854) | (0.2835) | (0.3016) | (0.3236) | (0.7047) | (1.2005) | (0.9346) |
| Lower limit | −1 | −1 | −15 | −1 | −1 | −15 | −1 | −1 | −15 |
| Upper limit | 14 | 14 | 15 | 14 | 14 | 15 | 14 | 14 | 15 |
| Observations | 358 | 358 | 358 | 227 | 227 | 227 | 131 | 131 | 131 |
| Pseudo $R^2$ | 0.0163 | 0.0247 | 0.0281 | 0.0042 | 0.0473 | 0.0286 | 0.0125 | 0.0410 | 0.0355 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table A6, Tobit regression coefficients are presented for the dependent variables 'InvG', 'InvB', and 'InvGminusInvB', the relative proportion invested in the Green (Brown) project compared to the proportion invested in the Neutral project, and the difference between both, respectively. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Treatment' variable is a binary indicator, taking the value of 1 for Treatment 1 and 0 for Treatment 0. The 'Professional' variable is a dummy variable that takes the value of 1 for professionals and 0 for students. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

Table A7: Ordered logistic regressions of project preferences - All samples

| | Whole | | | Students | | | Professionals | | |
|---|---|---|---|---|---|---|---|---|---|
| | (1) GammaGcat | (2) GammaBcat | (3) DeltaGvsBcat | (4) GammaGcat | (5) GammaBcat | (6) DeltaGvsBcat | (7) GammaGcat | (8) GammaBcat | (9) DeltaGvsBcat |
| Treatment | 0.9318*** | 0.2249 | 0.2011 | 1.4215*** | 0.6690* | 0.0383 | −0.0008 | −0.4271 | 0.7013* |
| | (0.1999) | (0.2012) | (0.2062) | (0.2706) | (0.2685) | (0.2566) | (0.3365) | (0.3403) | (0.3332) |
| Bret score | −0.0048 | −0.0006 | 0.0001 | 0.0028 | 0.0073 | −0.0009 | −0.0088 | −0.0043 | 0.0002 |
| | (0.0042) | (0.0045) | (0.0041) | (0.0059) | (0.0059) | (0.0056) | (0.0059) | (0.0073) | (0.0060) |
| Nep score | −0.0041 | −0.0509*** | 0.0520*** | −0.0220 | −0.0381* | 0.0223 | 0.0359 | −0.0789*** | 0.0936*** |
| | (0.0152) | (0.0135) | (0.0148) | (0.0203) | (0.0163) | (0.0173) | (0.0296) | (0.0237) | (0.0270) |
| Gender | 0.1664 | 0.0235 | 0.1233 | 0.1642 | −0.1163 | 0.3354 | 0.1338 | 0.2501 | −0.1325 |
| | (0.2055) | (0.2013) | (0.2022) | (0.2491) | (0.2593) | (0.2543) | (0.3755) | (0.3597) | (0.3845) |
| Income | −0.0237 | 0.0217 | −0.0474 | 0.0012 | 0.0199 | −0.0410 | −0.0390 | −0.0260 | −0.0403 |
| | (0.0733) | (0.0778) | (0.0704) | (0.1110) | (0.1111) | (0.0919) | (0.0845) | (0.1068) | (0.1078) |
| Professional | 0.8356*** | −0.3503 | 0.7081** | | | | | | |
| | (0.2280) | (0.2268) | (0.2202) | | | | | | |
| Observations | 358 | 358 | 358 | 227 | 227 | 227 | 131 | 131 | 131 |
| Pseudo $R^2$ | 0.0375 | 0.0172 | 0.0258 | 0.0503 | 0.0213 | 0.0076 | 0.0110 | 0.0349 | 0.0508 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table A7, ordered Logit coefficients are presented for the independent variables corresponding to the dependent variables 'GammaGcat', 'GammaBcat', and 'DeltaGvsBcat'. These variables represent the preferences for the Green project, Brown project, and the net Green project preference, respectively. They have been categorized into five quintiles. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Treatment' variable is a binary indicator, taking the value of 1 for Treatment 1 and 0 for Treatment 0. The 'Professional' variable is a dummy variable that takes the value of 1 for professionals and 0 for students. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level.

Table A8: Tobit regressions of project preferences - Treatment 1

| | Treatment 1 subsample | | | Students' subsample | | |
|---|---|---|---|---|---|---|
| | (1) GammaG | (2) GammaB | (3) DeltaGvsB | (4) GammaG | (5) GammaB | (6) DeltaGvsB |
| Bret score | −0.0010 | −0.0087 | 0.0076 | 0.0007 | 0.0014 | −0.0007 |
| | (0.0017) | (0.0072) | (0.0070) | (0.0022) | (0.0051) | (0.0050) |
| Nep score | 0.0030 | −0.0449 | 0.0479* | −0.0033 | −0.0176 | 0.0143 |
| | (0.0073) | (0.0251) | (0.0234) | (0.0072) | (0.0112) | (0.0118) |
| Gender | 0.1578 | 0.2210 | −0.0632 | 0.1457 | 0.0989 | 0.0468 |
| | (0.1240) | (0.4509) | (0.4194) | (0.1047) | (0.2601) | (0.2573) |
| Income | −0.0266 | 0.2710 | −0.2976 | 0.0144 | 0.2754 | −0.2610 |
| | (0.0409) | (0.2599) | (0.2437) | (0.0310) | (0.2258) | (0.2160) |
| Study level | 0.0213 | −0.1518 | 0.1731 | −0.0008 | −0.0309 | 0.0301 |
| | (0.0459) | (0.1495) | (0.1283) | (0.0439) | (0.0868) | (0.0786) |
| Professional | 0.2610 | −1.1036* | 1.3646** | | | |
| | (0.1470) | (0.5313) | (0.5032) | | | |
| Treatment | | | | 0.2362* | 0.6916** | −0.4554 |
| | | | | (0.1024) | (0.2537) | (0.2457) |
| Study field | | | | 0.0321 | 0.3004 | −0.2683 |
| | | | | (0.1088) | (0.2555) | (0.2630) |
| Constant | 0.1817 | 3.3990* | −3.2172* | 0.2672 | 0.2908 | −0.0236 |
| | (0.4414) | (1.5544) | (1.4328) | (0.5393) | (0.7562) | (0.8433) |
| Lower limit | −0.54 | −3.47 | −34.11 | −1.91 | −3.47 | −34.11 |
| Upper limit | 10.28 | 33.61 | 12.89 | 20 | 33.61 | 21.56 |
| Observations | 163 | 163 | 163 | 227 | 227 | 227 |
| Pseudo $R^2$ | 0.0145 | 0.0159 | 0.0232 | 0.0115 | 0.0214 | 0.0173 |

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

*Notes:* In Table A8, Tobit regression coefficients are presented for the independent variables corresponding to the dependent variables 'GammaG', 'GammaB', and 'DeltaGvsB'. These variables represent the preferences for the Green project, Brown project, and the net Green project preference, respectively. The 'Bret score' and 'Nep score' variables are detailed in Section 2.1. The 'Treatment' variable is a binary indicator, taking the value of 1 for Treatment 1 and 0 for Treatment 0. The 'Professional' variable is a dummy variable that takes the value of 1 for professionals and 0 for students. The 'Gender' variable is coded as 1 for females and 0 for males. 'Income' is a categorical variable ranging from 0 to 7, reflecting the subject's income level. The variable 'Study level' codes the validated year of study after high school from 0 (first year of Bachelor) to 7 (completed PhD). The variable 'Study field' takes the value 1 for disciplines in Administration, Business, Economics, and Management, and the value 0 for the other disciplines.

# Appendix B Experimental instructions

All instructions throughout this experiment were delivered via self-explanatory screens within the oTree platform. The experimental protocol remained consistent for both the professional and student samples, with two notable distinctions: (1) the initial endowment was set at 70 ECU (10 euros) for students and 70 euros for professionals, and (2) while all students received payment for their participation, only 1 professional out of every 10 was remunerated.

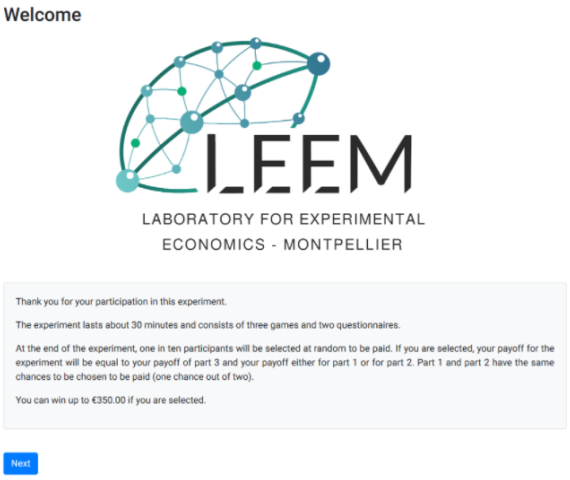


Figure B1: Welcome message.

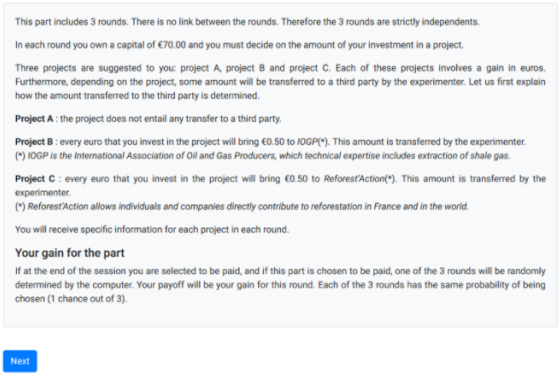


Figure B2: Instructions for the investment task.

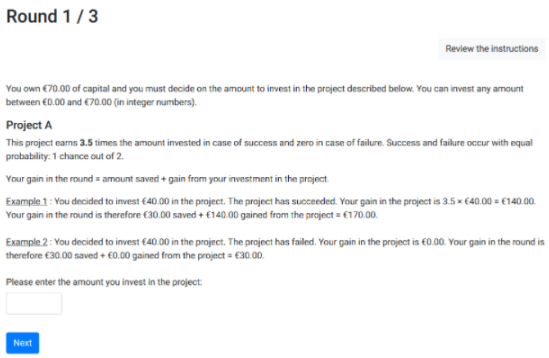


Figure B3: Round one in T0 for the investment task. In T1, the Neutral project also has an investment multiplier of 3.5.

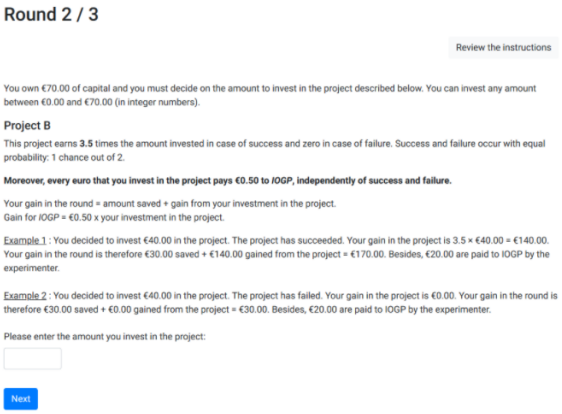


Figure B4: Round two in T0 for the investment task. In T1, the Brown project has an investment multiplier of 4.5.

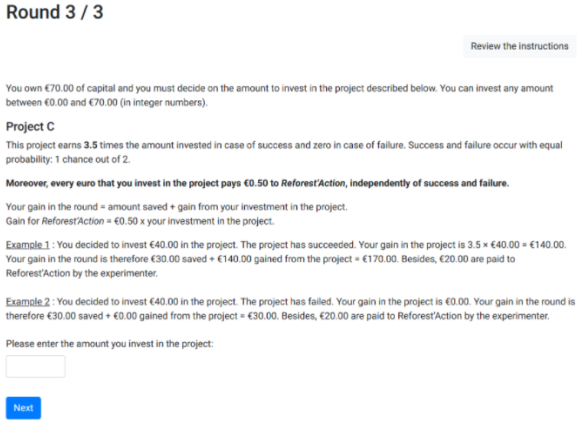


Figure B5: Round three in T0 for the investment task. In T1, the Green project has an investment multiplier of 2.5.

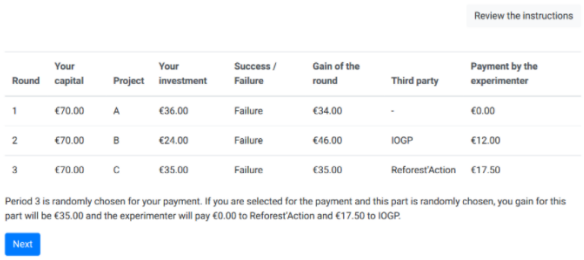


Figure B6: Results screen for the investment task.

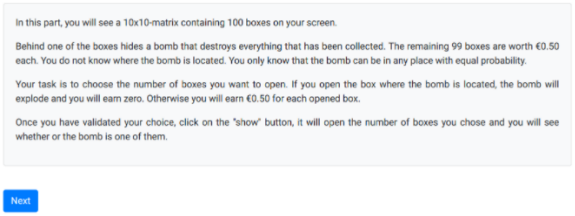


Figure B7: BRET instructions.

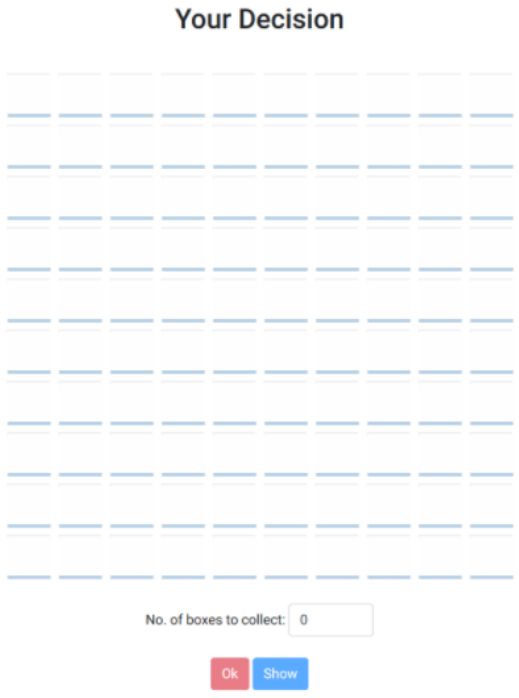


Figure B8: BRET decision.


Figure B9: BRET result.

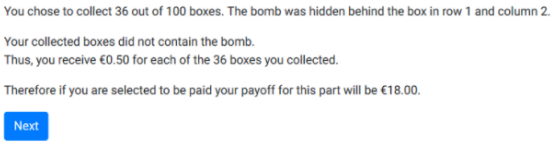


Figure B10: BRET result summary.

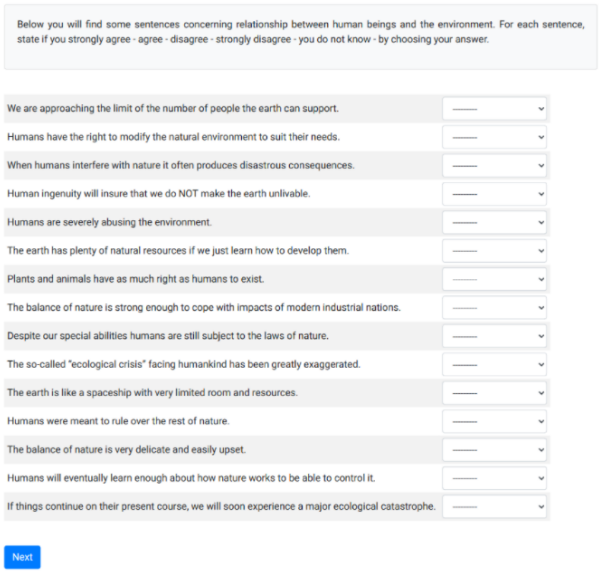


Figure B11: NEP questionnaire.

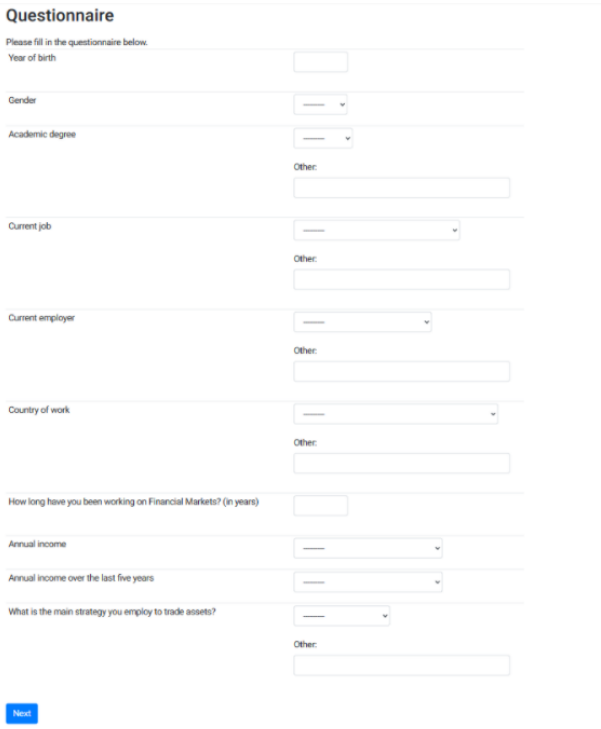


Figure B12: Socio-demographic questionnaire.

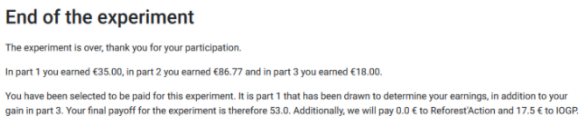


Figure B13: Final result screen.

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