

# Working Paper

Doing matters more than knowing: evidence from environmental preferences

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# DOING MATTERS MORE THAN KNOWING: EVIDENCE FROM ENVIRONMENTAL PREFERENCES

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#### **ABSTRACT**

This paper examines the relation between financial knowledge proficiency, financial behaviors, and pro-environmental attitudes, focusing on the willingness to pay for eco-friendly products. Individuals who exhibit stronger financial behaviors, such as saving for the future and making considered purchases, show significantly higher levels of environmental concern and are more likely to engage in sustainable consumption. The results also show that financial knowledge proficiency does not directly predict pro-environmental attitudes; rather, its influence operates indirectly by fostering sound financial behaviors. The study highlights the importance of financial habits in shaping long-term, environmentally responsible decision-making and provides insights for designing policies that integrate financial capability with sustainability initiatives to promote eco-conscious consumer practices.

**Keywords:** Financial literacy; financial behaviors; environmental concern; sustainable consumption; pro-environmental preferences.

*JEL Classification:* G53; D14; D91; Q50; Q56

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# 1 Introduction

Understanding the factors driving environmental concern and the willingness to pay for ecofriendly products and services is critical for shaping the management of environmental externalities. Whilst there is broad recognition that financial literacy, defined as the ability to make informed financial decisions, plays a central role in shaping consumer behavior, little is known about its effect on environmental attitudes. Research finds that individuals with higher financial literacy are more likely to adopt a future-oriented perspective (Kaiser and Lusardi, 2024), but there is not a definitive link as to whether that carries through to environmental preferences, which lend themselves to more long-term thinking and discounting. <sup>1</sup>

This paper investigates the relation between financial literacy behaviors and environmental preferences. Prior research has measured and studied environmental attitudes in different ways. Some scholars view them as a unidimensional construct focused solely on concern for the environment (McCunn and Gifford, 2012), whereas others adopt a multidimensional perspective that includes cognitive (knowledge), affective (emotions), and conative (behavioral intentions) components (Schultz, Shriver, Tabanico, and Khazian, 2004). Positive environmental attitudes can increase consumers' purchase intentions, with emotional involvement and environmental knowledge playing critical roles in fostering environmentally responsible behavior (Hartmann and Apaolaza, 2012; German, Redi, Prasetyo, Persada, Ong, Young, and Nadlifatin, 2022). Yet the study of how attitudes transmit into concrete actions is not clear and influenced by many factors. It is often mediated by financial resources, social norms, and access constraints (Kollmuss and Agyeman, 2002; OECD, 2023). These insights motivate our focus on financial literacy behaviors as potential mechanisms that may bridge the gap between environmental concern and sustainable consumption intentions.

Using a large cross-sectional sample of 1,200 respondents, we regress two outcomes—environmental

<sup>&</sup>lt;sup>1</sup> See, for example, (Stern, 1999) and Gifford and Nilsson (2014).

<sup>&</sup>lt;sup>2</sup> Environmental concern is a strong predictor of pro-environmental choices, including willingness to pay a premium for sustainable products (Trudel, 2018; Wei, Ang, and Jancenelle, 2018). Environmentally concerned consumers are more likely to adopt energy-efficient technologies and to support green products even when these choices entail higher upfront costs (Paul, Modi, and Patel, 2016a; Hu, Mamun, Reza, Wu, and Yang, 2024).

concern and willingness to pay for eco-friendly products—on three blocks of financial behaviors (FB1: tracking money flows; FB2: saving and medium-term planning; FB3: considered purchasing) and a financial knowledge proficiency indicator (FKP), controlling for gender, age, income, university education, and self-assessed math skills. Whereas past studies have often focused only on financial knowledge, we measure both financial knowledge and behavior, allowing us to explore the mediating role of knowledge on behavior and its effects on environmental preferences. Across our models, financial behaviors are strong, positive predictors of environmental concern, whilst financial knowledge's effect is small and non-statistically after behaviors are included. These patterns are robust to alternative coding that treats "don't know/no answer" as affirmative and to ordered-logit estimation.

To understand more about the mechanism, we estimate a structural equation model that treats financial knowledge as an input into financial habits and tests whether those habits mediate environmental outcomes. The estimates show a clear *behavioral channel*, whereby financial knowledge increases the likelihood of adopting simple, repeatable practices—specifically, the *FB2* behaviors of medium-term goal setting and precautionary saving, and the *FB3* behaviors of pre-purchase comparison and affordability checks. These practices, in turn, explain the increase in environmental concern and the willingness to pay for greener products. The direct path from financial knowledge to environmental outcomes is small and non-statistically significant, whereas the indirect path through financial habits is statistically and economically meaningful. This pattern is consistent with evidence from household finance showing that liquidity management and disciplined shopping shift attention toward life cycle value rather than upfront prices (Gifford and Nilsson, 2014; Lades, Laffan, and Weber, 2021; Kaiser and Lusardi, 2024).

Our paper contributes to a literature that shows how financial literacy affects time orientation and future focus, which are critical for both financial and environmental decision-making. Future-oriented individuals are more likely to engage in sustainable behaviors, understanding that today's actions have long-term implications (Stern, 1999; Gifford and Nilsson, 2014). For instance, those with strong future-oriented mindsets demonstrate a greater willingness to invest in eco-friendly

products and technologies, reflecting their alignment with both personal financial goals and broader sustainability objectives (Davis, Garrido, and Missura, 2023; Joireman, Van Lange, and Van Vugt, 2004). Similarly, patience (linked to future orientation) predicts investments in energy-efficient technologies and participation in activities aimed at raising environmental awareness (Lades et al., 2021; He, Jin, Gong, and Tian, 2019). We add to this literature by quantifying the role of financial behavior and specific practices, such as saving for the future and setting financial goals, on environmental preferences. The results inform initiatives and National Strategies aimed at promoting both financial literacy and environmental stewardship.

We also contribute to the financial literacy literature by investigating how financial knowledge and financial behaviors jointly relate to environmental concern, which is an emerging domain that warrants close examination given rising climate-finance challenges and growing evidence that structural national attributes shape environmental performance (Salahodjaev and Sadikov, 2025; Börner, Schulz, Wunder, and Pfaff, 2020; OECD, 2023). Crucially, we show that financial knowledge loses explanatory power for environmental outcomes once behaviors are held constant (Lusardi and Mitchell, 2011; OECD, 2016). This pattern is consistent with remarks that literacy matters to the extent that it is operationalized in day-to-day practices—planning over short horizons, precautionary saving, and deliberative purchasing—rather than as abstract knowledge alone (Kaiser and Lusardi, 2024). Our results align the "what people know" and "what people do" strands of the literature by documenting that capability appears to operate primarily through specific behaviors. We find that literacy is most tightly linked to observable financial actions, such as digital banking adoption and resilience during periods of stress, rather than to knowledge in isolation (Andreou and Anyfantaki, 2021; Andreou, Anyfantaki, and Atkinson, 2023). Our results suggest that literacy assessments and interventions on actionable behaviors, in the spirit of the OECD/INFE approach, are likely to be more effective for domains that require intertemporal trade-offs, including green consumption (OECD, 2016; OECD/INFE, 2023; Kaiser and Lusardi, 2024).

Our findings also carry important policy implications for climate action. Lack of capacity, expertise, and specialized knowledge among government officials and public authorities, stemming,

inter alia, from insufficient financial literacy, directly constrains their ability to manage climate finance and implement effective strategies (Tall, 2021; OECD, 2025). This challenge is especially pronounced in the case of adaptation finance, as adaptation projects tend to yield uncertain pecuniary benefits (typically through avoided costs rather than tangible revenues), which are heavily discounted in the future and exhibit strong public-good attributes (Pauw, Kempa, Moslener, Gruening, and Cevik, 2022; England, Dellis, Watkiss, and Hunt, 2025). Recent evidence also shows that national structural characteristics, such as institutional capacity, managerial competence, and technological readiness, strongly shape environmental performance and the effectiveness of climate policies (Andreou, Anyfantaki, Cabolis, and Dellis, 2024). The same forms of financial capability that facilitate sustainable choices among households—planning, precautionary saving, and careful evaluation of alternatives—parallel the competencies required by public authorities in designing, financing, and implementing climate strategies. By showing that financial literacy, particularly its behavioral dimension, supports forward-looking and disciplined decision-making, our results highlight a capability that is equally essential at the policy level. This alignment suggests that strengthening financial literacy can enhance climate-relevant decision-making across both individual and institutional spheres. Building on dedicated, innovative sources of finance is, therefore, pivotal for bridging the adaptation finance gap and is inherently connected with a solid understanding of financial principles, mechanisms, and instruments.

The remainder of the paper is structured as follows. Section 2 describes the survey instrument and data collection, including questionnaire design, construction of the financial knowledge and financial behavior indices, and measurement of environmental attitudes. Section 3 outlines the empirical framework, detailing the linear probability models, the set of control variables and identification concerns, and the structural equation model that links financial knowledge, financial behaviors, and environmental outcomes. Section 4 presents the empirical results, beginning with the baseline estimates and then reporting robustness checks that use individual behavior items and ordered response models, as well as graphical evidence from predicted probabilities and the mediation analysis that quantifies the indirect role of financial knowledge through financial habits.

Section 5 concludes by summarizing the main findings, drawing out implications for financial education and climate policy, and discussing limitations and directions for future research.

# 2 Research design

# 2.1 Questionnaire design and measurement

To achieve the research objectives, a survey was conducted using an instrument developed by the authors in the Greek language. The questionnaire was administered to 1,200 Cypriot citizens aged 18 to 64 through a self-administered, web-based survey. We verified the construct validity and content reliability of the questionnaire by drawing on existing survey approaches to measure financial literacy. We also undertook a round of pilot testing to ensure that the final version of the survey instrument featured appropriate wording and tone, as well as a logical question flow. First, the initial draft of the survey instrument mimicked the structure and flow of the OECD (2022) toolkit for measuring financial literacy and used key questions as previously included in the surveys conducted by Andreou and Anyfantaki (2021) and Andreou et al. (2023).<sup>3</sup> Second, the survey instrument was extensively discussed with an experienced scholar who made further suggestions. Third, the instrument was reviewed by the expert group of the professional agency responsible for running the online survey in Cyprus, and several of their recommendations were implemented.<sup>4</sup> Finally, the final version was administered online to 10 individuals, who not only completed the questionnaire but also provided feedback regarding its clarity, wording, and flow. This pre-test ensured that the survey was comprehensible and that respondents could provide their answers within a reasonable time frame. After the completion of the fieldwork, comparisons among key

<sup>&</sup>lt;sup>3</sup> The OECD (2022) questions themselves are largely drawn from existing surveys and have all been validated and approved by OECD/INFE experts. They represent good practice in financial literacy and financial inclusion measurement. The questionnaire has been successfully used to capture the financial literacy of diverse populations and has been applied to a vast number of countries and economies that participated in an international survey of adult financial literacy competencies.

<sup>&</sup>lt;sup>4</sup> This agency is a credible and accredited company specializing in market research and online survey administration in Cyprus.

questions with prior surveys confirmed the validity of our instrument.<sup>5</sup>

There is growing evidence that self-administered, web-based surveys can yield more accurate and reliable responses than interviewer-administered modes, as they reduce social desirability bias and allow respondents to complete the questionnaire at their own pace (Chang and Krosnick, 2009). Whilst the OECD/INFE guidelines initially emphasized face-to-face or telephone interviews for cross-country comparability (OECD/INFE, 2011a), more recent as in OECD (2022) and OECD/INFE (2023) recognizes that in countries with high internet penetration, online surveys provide a valid and effective alternative. In line with this evolving practice, our study employed a self-administered online survey using a mixed sampling methodology, which is well suited to the Cypriot context given its high internet coverage and digitally engaged population.

Following the professional agent protocol, participants were asked to participate in the survey between November and December 2022 through two channels: (*i*) invitations sent via email to individuals included in the survey company database, which contains approximately 1,000 contacts who had previously provided consent to be contacted in line with GDPR requirements, and (*ii*) river sampling, whereby the survey link was disseminated through targeted online platforms and websites in order to reach individuals across different demographic groups. To ensure data quality and representativeness, the survey company closely monitored fieldwork and employed a stratified random sampling methodology, whereby respondents were selected with known probabilities of selection from the population. This approach ensured adequate representation of the Cypriot population aged 18-64 with respect to age, gender, and geographic distribution, whilst a booster sample of 200 respondents aged 18-25 was also included to strengthen the representation of younger cohorts.

The questionnaire is divided into four sections. The first section includes questions regarding

<sup>&</sup>lt;sup>5</sup> This process included, *inter alia*, the comparison of key financial literacy questions and aggregate statistics, which confirmed that the survey findings of this study closely aligned with those reported in prior research, including Andreou and Philip (2018), Andreou and Anyfantaki (2021), and Andreou et al. (2023). This consistency further strengthens the validity of the instrument employed.

<sup>&</sup>lt;sup>6</sup> The respondents were encouraged to complete the questionnaire by being offered an incentive.

<sup>&</sup>lt;sup>7</sup> The target of 1,200 individuals is significantly larger than the typical sample size of 600 individuals used for Cyprus in the EU Program of Business and Consumer Surveys (https://ec.europa.eu/info/business-economy-euro/indicators-statistics/economic-databases/business-and-consumer-surveys\_en).

sociodemographic information: gender, age, education level, and annual gross income. In our empirical specifications, we control for *FEMALE* (a binary variable set equal to one for female participants, and zero otherwise), *AGE* (a categorical variable that takes values from one to five corresponding to age groups 18-29, 30-39, 40-49, 50-59, and 60-64), *UNIVERSITY* (a binary variable set equal to one for participants holding a university degree—bachelor's, master's, or higher—, and zero otherwise), *HIGH INCOME* (a binary variable set equal to one for participants who have an annual gross income above 40,000 euros, and zero otherwise). This section also includes one further question concerning respondents' self-confidence in being good at mathematics. We control for *MATH SKILLS*, which is a categorical variable that takes values from one to five, corresponding to participants' competence in mathematics. Controlling for one's math skills is crucial because it allows us to disentangle the role of financial literacy from general numeracy, which helps to ensure that observed associations with financial behaviors are not merely capturing differences in basic cognitive ability, but instead reflect the impact of financial knowledge itself (Lusardi and Mitchell, 2014; Andreou and Philip, 2018).

The second section of the instrument contains questions designed to assess respondents' financial knowledge using items that have been extensively employed in prior surveys (Lusardi and Mitchell, 2011; OECD, 2016; Andreou et al., 2023). Table A1 in the Appendix lists the seven survey questions used. These consist of: (*i*) three foundational questions aligned with the "Big Three" of Lusardi and Mitchell (2011), capturing the concepts of compound interest (QFK1), understanding and consequences of inflation (QFK2 and QFK3), and the benefits of risk diversification (QFK4); and (*ii*) three further questions following Andreou and Anyfantaki (2021) and Andreou et al. (2023) that assess knowledge of the risk–return trade-off (QFK5), the annual percentage rate (APR) (QFK6), and awareness of crucial banking issues (QFK7).<sup>8</sup>

Despite the relatively basic nature of questions QFK1, QFK3, and QFK4, evidence from Lusardi and Mitchell (2011) shows that *only* about one-third of respondents were able to provide

<sup>&</sup>lt;sup>8</sup> QFK1 and QFK2 feature multiple-choice answers including "Don't Know / Don't Answer" to reduce guessing. QFK7 is open-ended, allowing respondents to reply in their own words (also including "Don't Know / Don't Answer"). The remaining questions require a true/false response (again allowing for "Don't Know / Don't Answer").

correct answers to the three corresponding "Big Three" items. Failure to answer QFK1 (compound interest), QFK3 (consequences of inflation), and QFK4 (risk diversification) correctly is indicative of difficulties in handling even simple intertemporal financial decisions, such as evaluating the effects of inflation or understanding how money grows over time through compound interest. By contrast, QFK2 captures a more general understanding of inflation and complements the concept of inflation probed by QFK3. Beyond these, questions QFK5 and QFK6 are designed to probe knowledge of core financial concepts, namely, the risk—return trade-off (QFK5) and the meaning of the annual percentage rate (APR) (QFK6). These items are more investment-oriented in that correct responses presuppose at least a basic level of financial literacy that consumers should possess when interacting with professionals and making investment choices. Finally, QFK7 is a banking-specific question used by Andreou and Anyfantaki (2021); Andreou et al. (2023) to examine familiarity with the Deposit Guaranty Scheme, a mechanism that gained significant prominence in Cyprus following the 2013 bail-in.<sup>9</sup>

The 7-question scale we employ represents a comprehensive measure of financial knowledge in Cyprus, spanning concepts in the "saving, portfolio, and mortgage" choice domains, following Andreou and Anyfantaki (2021) and Andreou et al. (2023). Each correct answer receives a score of one, whilst any other response receives a score of zero. In our empirical specifications, we control for the financial knowledge proficiency indicator *FKP*, which equals one for individuals who are perceived as being financially knowledgeable, and zero otherwise. Specifically, based on the 7-question scale, proficiency is attributed to individuals who answer correctly at least five out of the seven questions. This threshold is directly aligned with the OECD/INFE methodology (OECD, 2022; OECD/INFE, 2023), which establishes a minimum target of five correct answers as the benchmark for identifying individuals with a high level of financial knowledge in international financial literacy assessments (see also Andreou and Philip, 2018; Andreou et al., 2023).

The third section includes questions about financial behaviors related to financial literacy, based

<sup>&</sup>lt;sup>9</sup> The Deposit Guaranty and Resolution of Credit and Other Institutions Scheme (DGS) has been operational since 2000 and aims to reimburse depositors of participating institutions in the event of bank failure. The maximum compensation is set at €100,000 per depositor, per institution, including accrued interest.

on similar items used in the OECD/INFE questionnaire. Table A2 in the Appendix lists the seven survey questions and organizes them into three blocks of financially savvy behaviors:

- FB1: Keeping track of money flows;
- FB2: Saving and medium-term planning;
- FB3: Making considered purchases.

Turning to the block-specific questions, the first block (FB1) asks participants to indicate on a scale of one to five—where one corresponds to completely disagree and five to completely agree—the extent to which they agree or disagree with the statement "I keep track of upcoming bills to make sure I do not miss them" (QFB1). The second block (FB2) asks participants to what extent they agree or disagree with three statements: (i) "I have saved money over the past 12 months" (QFB2); (ii) "I save money to be able to handle any unexpected expenses that may arise" (QFB3); and (iii) "I set financial goals for the next 1-2 years" (QFB4). The third block (FB3) asks participants to what extent they agree or disagree with the following three statements: (i) "I trust financial professionals for my investment decisions because they always serve my financial interests" (QFB5); (ii) "Before buying something, I compare prices" (QFB6); and (iii) "Before buying something, I carefully consider whether I can afford it" (QFB7).

For each block, the behaviour score is computed in a manner analogous to the financial knowledge scale, whereby each financially savvy behaviour receives a score of one, and any other response receives a score of zero. A behaviour is coded as one when the participant "completely agrees" or "agrees" with the statement, and zero otherwise. The block-level score is then defined as the sum of financially savvy behaviours within each block. This scoring rule implies that the financial behaviour score for *FB1* takes values in [0, 1], whereas the scores for *FB2* and *FB3* take values in [0, 3].

Lastly, to understand respondents' pro-environmental attitudes, focusing on their concern about the environment and their willingness to pay for eco-friendly products, all participants are asked to indicate on a scale of one to five—where one corresponds to completely disagree and five to completely agree—to what extent they *agree* or *disagree* with the following two statements: (i) "I

am interested in issues related to the environment and climate change," and (ii) "I am willing to pay more for buying environmentally friendly products." In this context, our main dependent variables, ENVIR CONCERN and ENVIR PREMIUM, are defined as binary variables set equal to one when the participant "completely agrees" or "agrees" with the respective statement, and zero otherwise.

## 2.2 Sample and demographic factors

Table 1 presents summary statistics. The sample consists of 51.7% female and 48.3% male participants, with 71.3% holding a university degree (bachelor, master's, or higher). The mean for AGE is 2.45, suggesting that the sample is skewed toward younger to middle-aged respondents. No data weighting was applied in the reported analyzes because the survey's baseline sample of 1,000 is relatively well balanced in terms of gender and age composition. Admittedly, the final sample is skewed towards younger ages due to the boosted sample of 200 individuals in the age group of 18-25. The booster was deliberately introduced to ensure sufficient statistical power for analyzing younger cohorts, who are typically underrepresented in survey participation rates and are of particular policy interest in financial literacy research, given that they are at a formative stage of financial decision-making (Lusardi, Mitchell, and Curto, 2010). In addition, younger generations have consistently been shown to express stronger pro-environmental attitudes and a greater willingness to engage in sustainable consumption compared to older cohorts (European Commission, 2021; OECD/INFE, 2023). Ensuring adequate representation of this age group, ergo, allows us to better capture heterogeneity in the relationship between financial literacy and pro-environmental behavior and to more accurately model the drivers of environmentally conscious financial decision-making.

Environmental engagement is relatively strong, with 75.9% of the responders expressing interest in environmental issues, and 53% indicating a willingness to pay more for environmentally friendly products. Turning to the financial behavior questions, 73.6% keep track of upcoming bills, suggesting strong engagement in day-to-day financial management. However, only 30% reported saving money over the past 12 months, whilst only 55.9% have saved money to handle unexpected

expenses, and 60.2% set financial goals for the next 1-2 years. More interestingly, just 26.8% trust professionals for financial advice. On the positive side, 82.4% compare prices before purchases, and 81.3% consider affordability—indicating thoughtful spending habits. All in all, the mean score for the financial behavior blocks *FB2* (1.461) and *FB3* (1.905) highlights variation in how actively individuals engage with different aspects of financial preparedness. In terms of knowledge competencies, 20.1% of the sample is considered financially literate, and 36.4% rate themselves as being "good at math," with an average of 3.64 on a 1-5 scale.

#### [Insert Table 1, here]

The findings of this survey are broadly consistent with prior evidence on financial behavior and competencies in Cyprus. For instance, Andreou et al. (2023) report that 64.3% of individuals in their survey saved money to handle unexpected expenses, 60% set long-term financial goals, and 29.5% trusted professionals for financial advice—figures that are closely aligned with the respective 55.9%, 60.2%, and 26.8% observed in the present study. Similarly, the share of respondents who compared prices before purchases was 86.3% in their study, almost identical to the 82.4% reported here, whilst 46.5% considered themselves good at mathematics, a figure not far from our estimate of 36.4%. In terms of financial knowledge, Andreou et al. (2023) report that 36.3% of respondents achieved a good proficiency level, comparable to earlier studies by Andreou and Philip (2018) and Andreou and Anyfantaki (2021), which reported 36.9% and 37.3%, respectively.<sup>10</sup> The lower proportion of financially literate individuals found in the present study (20.1%) can be largely attributed to the greater weight of younger respondents in the sample. This interpretation is consistent with the OECD (2025) report for Cyprus, which shows that financial knowledge is considerably lower among those aged 18-29 compared with older groups, and that only 17% of the general population reached the minimum target financial literacy score.

<sup>&</sup>lt;sup>10</sup> The survey by Andreou et al. (2023) was conducted in May 2021, collecting data from 840 individuals aged 25-64 in Cyprus through telephone interviews. The similarity of their results with ours, despite differences in timing and sampling design, lends support to the external validity of these findings.

#### 2.3 Descriptive analysis

Table 2 reports the breakdown of responses to the seven financial knowledge questions, showing the frequency and proportion of "Correct," "Wrong," and "Don't Know / Don't Answer" responses for each of the two environmental-attitude groups, as well as for the full sample. A large proportion of individuals answered correctly the question on understanding inflation (QFK2) (991 respondents, or 82.58% of the entire sample), the question on the consequences of inflation (QFK3) (754 respondents, or 62.83%), and the question on awareness of crucial banking issues (QFK7) (615 respondents, or 51.25%). By contrast, the questions on the composition of the annual percentage rate (QFK6), the risk–return relation (QFK5), and the benefits of risk diversification (QFK4) were more challenging, with only 32.83%, 16.75%, and 19.67% of respondents, respectively, answering correctly. The proportion of correct responses to the compound interest calculation question (QFK1) is 47.17%.

Turning to the patterns within each panel, Panel A shows that individuals who express concern about environmental issues consistently achieve higher scores across all seven financial knowledge questions. The largest difference arises for the question on awareness of crucial banking issues (QFK7), where respondents who are not concerned about the environment are approximately 17 percentage points less likely to answer correctly (55.43% versus 38.06%). Differences are also visible in items that require more advanced financial reasoning. Only about 16% of individuals who report no environmental concern correctly answered the question on the risk–return relation (QFK5), compared with 17.01% among those who express concern. A similar pattern emerges for the benefits of portfolio diversification (QFK4), where 16.61% of the non-concerned group answered correctly, relative to 20.64% in the concerned group. These gaps suggest that individuals who do not exhibit environmental concern are also less familiar with the core financial concepts that underpin investment decision-making.

Panel B reveals a parallel pattern when respondents are grouped by their willingness to pay more for environmentally friendly products. Across all seven financial knowledge items, individuals who indicate a willingness to pay more consistently outperform those who are not willing to do so.

The differences are again most pronounced for the more demanding questions. For instance, only 14.54% of individuals who are not willing to pay a premium answered the risk–return question (QFK5) correctly, compared with 18.71% among those who are willing to pay more. Understanding of diversification (QFK4) is similarly low across both groups, but remains higher among those with pro-environmental preferences (22.33% versus 16.67%). These descriptive patterns indicate that respondents with stronger pro-environmental preferences tend to display enhanced knowledge of fundamental financial concepts.

Taken together, the patterns documented in Panels A and B point to a consistent association between pro-environmental attitudes and financial knowledge. Individuals who express concern for the environment or who are willing to pay more for environmentally friendly products exhibit higher accuracy rates across all financial knowledge items and are less likely to choose "Don't Know / Don't Answer," suggesting greater familiarity and confidence with financial concepts. This motivates the need to further explore how financial literacy relates to environmental attitudes in our empirical analysis.

#### [Insert Table 2, here]

# 3 Empirical setup

The study investigates the relation between financial literacy, environmental concern, and willingness to pay for eco-friendly products, focusing on how financial decision-making skills may encourage more sustainable consumer practices. For this, we estimate a linear probability model (LPM) in which the main dependent variable is a binary indicator of environmental attitude. The LPM offers a transparent way to quantify marginal effects in percentage-point terms and accommodates the rich set of controls included in the analysis without requiring nonlinear transformations. Although the LPM has well-known caveats—most notably heteroskedasticity and the possibility of fitted values falling outside the ([0,1]) range—we address the former by reporting heteroskedasticity-robust standard errors, and the latter is limited in practice, as the models are

used for inference rather than prediction <sup>11</sup>. Specifically, we estimate:

$$Y_i = a + \beta(FB_i) + \gamma(FK_i) + \delta_k \cdot Z_{i,k} + \epsilon_i, \tag{1}$$

where the dependent variable  $Y_i$  is the *ENVIR CONCERN* or the *ENVIR PREMIUM* for each respondent i. The variable  $FB_i$  denotes the respondent's financial behavior score, as measured by FB1, FB2, or FB3, and is expected to be positively related to a positive environmental attitude. We also control for the variable  $FKP_i$ , which is equal to one if respondent i is proficient in financial knowledge.

Environmental attitudes and behaviors emerge from a complex interplay of psychological, socio-demographic, and external factors. First, socio-demographic factors such as gender, age, education, and income play a nuanced role in shaping attitudes towards the environment. Research indicates that gender differences are prominent, with women generally demonstrating greater environmental concern (Davidson and Freudenburg, 1996), despite possessing less factual knowledge than men (Ogiemwonyi, 2024; Gifford and Nilsson, 2014). Age presents a multifaceted relation. Younger adults voice greater concern and adopt visible green practices, whereas older cohorts show deeper, but sometimes narrower, commitment (Liu, Vedlitz, and Shi, 2014; Jansson, Marell, and Nordlund, 2010). The impact of education on environmental behavior remains complex, with studies indicating that whilst higher education may correlate with increased environmental awareness, it does not consistently predict concern (Gifford and Nilsson, 2014; Liu et al., 2014). A solid understanding of environmental issues is essential for promoting pro-environmental actions, as knowledge significantly influences behavior (Kollmuss and Agyeman, 2002; Mobley, Vagias, and DeWard, 2010). Income influences feasible actions, whereby wealthier households buy costlier green goods, whilst lower-income households rely on low-cost practices such as recycling and often express equal or greater concern (Jansson et al., 2010; Ogiemwonyi, 2024; Paul, Modi, and Patel, 2016b; Uyeki and Holland, 2000).

<sup>&</sup>lt;sup>11</sup> We have also estimated logit models, and the results are qualitatively unchanged, confirming that our findings are not driven by the linear specification. The results are available by the authors upon request

Given the above, the set of control variables  $Z_{i,k}$  includes gender (FEMALE), age (AGE), education (UNIVERSITY), income ( $HIGH\ INCOME$ ), and self-assessed numerical ability ( $MATH\ SKILLS$ ). Consistent with prior evidence, we expect women to exhibit a higher environmental concern than men, although gender differences in factual knowledge may complicate this relation. Age is anticipated to correlate negatively with environmental concern, reflecting the stronger environmental orientation typically observed among younger individuals. Education is expected to be positively associated with environmental concern, though the literature indicates that this link can vary depending on whether education enhances awareness, values, or actionable knowledge. High-income individuals are more likely to have the financial capacity to pay a premium for green products, but income is not expected to be systematically related to environmental concern per per

Our primary threat to causal identification is omitted variables, namely that unobserved determinants of environmental preferences are correlated with financial behavior. For example, more productive individuals may have better finances as well as additional capabilities to care for the environment. Whilst we do not have a complete solution to this challenge and recognize that our coefficient estimates do not represent causal effects, we sequentially saturate our model with controls and argue that the invariance of our main coefficients of interest to these controls merits further investigation and points towards a potentially causal phenomenon between financial behavior and environmental preferences.

# 4 Results

#### 4.1 Baseline results

Table 3 reports the baseline estimates using *ENVIR CONCERN* as the dependent variable. Across all specifications, several socio-demographic factors exhibit consistent associations with environmental attitudes. Older respondents are significantly more likely to report caring about the environment, with a positive and highly significant coefficient in every model. Higher-income individuals also display a stronger probability of expressing environmental concern, although the magnitude of the effect is modest. The coefficient on *UNIVERSITY* becomes statistically significant once the full set of behavioral and knowledge variables is included in models (5)–(6), suggesting that education contributes to environmental concern primarily when controlling for financial competencies.

Financially savvy behaviors show a clear and robust relation with pro-environmental attitudes. In models focusing on the individual behavior blocks, *FB1* (tracking money flows), *FB2* (saving and medium-term planning), and *FB3* (making considered purchases) are all positive and statistically significant (*p*-values<0.01) predictors of environmental concern. The magnitude of the coefficients ranges from 0.044 to 0.100 (*p*-values<0.01). Notably, *FB3* displays the most stable pattern and remains significant across the specifications in which it is included, with coefficients between 0.087 and 0.094 (*p*-values<0.01). These results suggest that deliberative consumer behavior is strongly aligned with pro-environmental preferences.

Turning to financial knowledge, the coefficient on *FKP*, the indicator of financial knowledge proficiency, is small and *statistically non-significant* in models (4)-(6). This suggests that conceptual financial knowledge, on its own, does not meaningfully predict environmental concern. Instead, it is the behavioral dimension of financial literacy that appears to matter! By contrast, numerical ability (*MATH SKILLS*) is positive and statistically significant once included, indicating that confidence in handling quantitative information is associated with greater environmental concern. Importantly, the inclusion of *MATH SKILLS* does not attenuate the behavioral coeffi-

cients, lending credence to the idea that consistent financial habits, rather than knowledge alone, underpin pro-environmental attitudes. This finding aligns with recent evidence highlighting the limited effectiveness of knowledge-based literacy interventions (Kaiser and Lusardi, 2024), and it underscores that behaviors—not just what individuals know, but what they *do*—are what ultimately shape environmental preferences.

#### [Insert Table 3, here]

Taken together, the results in Table 3 show that individuals who exhibit careful financial planning and thoughtful consumption practices are more likely to express concern for environmental issues. Financial behaviors emerge as substantively meaningful predictors of environmental attitudes, whereas financial knowledge proficiency does not exert an independent effect once behaviors are taken into account.

Table 4 replicates the analysis of Table 3 using each individual financial behavior item (QFB1–QFB7) rather than aggregated behavior blocks. The results show that several specific behaviors are strongly and significantly associated with environmental concern. Among the FB1 and FB3 items, comparing prices as captured by QFB6 with a coefficient of 0.159 (p-value < 0.01) and carefully considering affordability before buying, as captured by QFB7 with a coefficient of 0.145 (p-value < 0.01) exhibit the strongest associations with pro-environmental attitudes. Within the saving and medium-term planning block, setting financial goals for the next 12 years, as captured by QFB4, shows a coefficient of 0.111 (p-value-value < 0.01), whilst saving for unexpected expenses, as captured by QFB3, has a coefficient of 0.086 (p-value-value < 0.01). Tracking upcoming bills (QFB1) is also statistically significant, with a coefficient of 0.094 (p-value < 0.01). By contrast, trusting financial professionals for investment decisions (QFB5) and reporting that one has saved money over the past 12 months (QFB2) do not display statistically significant associations with environmental concern. Across all specifications, financial knowledge proficiency (FKP) remains small and statistically non-significant. This supports the pattern observed earlier, whereby behavioral tendencies, rather than conceptual financial knowledge, are the primary correlates of pro-environmental attitudes.

#### [Insert Table 4, here]

An important question is whether pro-environmental attitudes also translate into a willingness to pay for eco-friendly products. Although our data capture stated attitudes rather than revealed preferences, the results in Table 5 show that financial behavior remains a strong and statistically significant predictor of *ENVIR PREMIUM*. Tracking money flows, as captured by FB1, is associated with a coefficient of 0.118 (p-value< 0.01), indicating that individuals who monitor their upcoming bills are more likely to express a willingness to pay more for environmentally friendly products. Saving for medium-term financial goals, as captured by FB2, is likewise significant, with a coefficient of 0.086 (p-value< 0.01). Making considered purchases, as captured by FB3, also shows a strong positive association, with a coefficient of 0.096 (p-value< 0.01). These results reflect the earlier findings for *ENVIR CONCERN* and provide empirical support for the view that thoughtful and disciplined financial behaviors are consistently linked to stronger pro-environmental preferences.

#### [Insert Table 5, here]

Table 6 replicates the analysis for *ENVIR PREMIUM* using each individual financially savvy behavior item (QFB1-QFB7) rather than the aggregated behavior blocks. The results indicate that several specific behaviors are strongly and significantly associated with the willingness to pay more for environmentally friendly products. Tracking upcoming bills, as captured by QFB1, enters positively with a coefficient of 0.118 (*p*-value<0.01). Within the saving and medium-term planning block, saving for unexpected expenses, as captured by QFB3, has a coefficient of 0.158 (*p*-value<0.01), whilst setting financial goals for the next 1-2 years, as captured by QFB4, exhibits the strongest association with a coefficient of 0.198 (*p*-value<0.01). Among considered-purchasing behaviors, trusting financial professionals for investment decisions (QFB5) shows a coefficient of 0.107 (*p*-value<0.01), comparing prices before buying (QFB6) shows a coefficient of 0.126 (*p*-value<0.01), and carefully checking affordability before buying (QFB7) shows a coefficient of 0.143 (*p*-value<0.01). By contrast, reporting that one has saved money over the past 12 months (QFB2)

does not display a statistically significant association with the willingness to pay a green premium. Across all specifications, financial knowledge proficiency (FKP) remains small and statistically non-significant. Consistent with earlier findings, these results reinforce that behavioral tendencies, rather than conceptual financial knowledge, are the primary correlates of pro-environmental willingness to pay.<sup>12</sup>

#### [Insert Table 6, here]

Finally, we attempt to mitigate the potential effect of omitted determinants of environmental preferences by including a broader set of control variables, explicitly targeting individual attributes that can be correlated with financial behavior. In Table A7 in the Appendix we add to the list of covariates the degree to which respondents use online banking (ONLINE BANKING), follow financial news (FINANCIAL NEWS), pay attention to information associated with numbers (NUMERICAL INFORMATION) and the relevance of their educational degree to finance (RELEVANT DEGREE). The results using financial behavior blocks are broadly similar to the ones in Tables 3 and 5. This underlines that the effect of sound financial behavior on environmental preferences remains robust considering important elements of an individual's attitude towards financial issues.

#### 4.2 Further tests

To test the robustness of the results with respect to an ordinal treatment of the outcome variables, we estimate ordered logit regressions in Tables 7 and 8. This allows us to use all five responses from the original survey questions in our dependent variables. The ordered logit framework assumes an underlying latent propensity for environmental concern (or willingness to pay), with observed response categories (in this case five) determined by threshold crossings. This approach preserves

<sup>&</sup>lt;sup>12</sup> We use alternative definitions of the dependent variables, where "neutral" (Don't know/Don't answer) responses in the original environmental concern (*ENVIR CONCERN*) and willingness-to-pay (*ENVIR PREMIUM*) questions are coded as affirmative. The results are in line with the baseline specifications in Tables 3 to 6. As shown in Tables A3 and A4 in the Appendix, the direction, magnitude, and statistical significance of financial behavior block variables remain largely unchanged. Consistent with what we would expect when coarsening the "treatment," the coefficients decline in statistical significance but remain qualitatively robust. This affirms the robustness of our main findings across different specifications. Tables A5 and A6 in the Appendix replicate these results using each of the individual financial behavior questions.

more informational content than dichotomisation and allows us to compute marginal effects for each response level. We report the marginal effects from these estimations, which indicate the change in the probability of choosing each response category when the financial behavior scores increase compared to the baseline of a zero score in each financial behavior block (as defined in Table A2). Our results are fully consistent with the OLS and logit estimates discussed in Section 4.1. The coefficients Financial behavior scores increase the likelihood of higher levels of environmental concern and willingness to pay, whilst the financial literacy variable remains non-significant. This enhances the validity of our baseline results and indicates that the positive association between financial behaviors and environmental attitudes is not a result of the binary coding for environmental variables but holds across the entire response distribution.

The positive and statistically significant coefficients in the last row (*i.e.*, "Completely agree") of Table 7 indicate that respondents with non-zero financial behavior scores have a higher probability of completely agreeing with the statement, "I am interested in issues related to the environment and climate change," relative to the base category. For example, conditional on all other variables being fixed at their sample means, an individual with the highest FB2 score, equal to three (column 4), has a 15.9 percentage point higher probability of completely agreeing with the statement compared to a non-savvy individual. Interestingly, the pattern is the same for all financial behavior blocks, underlining the increase in the probability of caring for environmental issues as the financial behavior score increases. The effect is more pronounced for the third block (FB3) related to making considered purchases, where a high score of three increases the probability of completely agreeing by almost 33 percentage points relative to the base group (column 7).

#### [Insert Table 7, here]

A similar pattern emerges with the effect of financial behavior on paying an environmental premium in Table 8. The increases in the probability of completely agreeing with the statement "I am willing to pay more for environmentally friendly products" are statistically significant, yet smaller in magnitude compared to Table 7. Shifting from a zero to a positive score in financial behaviour also increases the probability of (simply) agreeing with the statement related to paying the

environmental premium. For example, there is an 10.9 percentage point increase in the probability of agreeing when shifting from a zero score in *FB2* to the highest score of three. As with environmental care, the probability of (simply or completely) disagreeing significantly diminishes with better environmental behavior.

#### [Insert Table 8, here]

Figures 1-6 provide visual support for the patterns discussed above and serve two purposes. First, they translate the regression estimates into predicted probabilities that are easier to interpret. Second, they allow us to assess how environmental attitudes vary across the full range of financially savvy behavior scores, rather than only through point estimates reported in tables. Each figure plots the marginal effects computed from ordered logit specifications, holding all socio-demographic controls at their sample means. The vertical axis depicts the predicted probability that a respondent replies "I completely agree" to the two survey items capturing environmental behavior (Figures 1, 3 and 5 refer to Environmental Care and Figures 2, 4 and 6 refer to Environmental Premium), whilst the horizontal axis traces the corresponding financial behavior score for the relevant block. Confidence intervals (95%) around the prediction lines reflect the uncertainty of the estimated marginal effects.

Across all six panels, conditional on socio-demographic factors, higher financially savvy behavior scores are associated with a higher probability of both caring about the environment and being willing to pay a green premium. For behaviors related to keeping track of money flows (*FB1*) in Figures 1 and 2, moving from a score of zero to one is associated with an increase of more than 10 percentage points in the probability of caring about environmental issues, which is statistically significant at the 5% level. The corresponding increase for the environmental premium is positive but not statistically significant. Turning to saving and medium-term planning (*FB2*) in Figures 3 and 4, the results show a sharp upward shift in both outcomes when a respondent moves from a zero to a non-zero score. However, the marginal changes from scores 1 to 3 are comparatively small and statistically weak. This pattern suggests that what matters for environmental attitudes is the presence, rather than the intensity, of financially savvy habits related to saving and long-term

planning. Finally, for behaviors capturing considered purchases (*FB3*) in Figures 5 and 6, the probability of both caring and paying a premium increases almost linearly with the behavioral score. Although unit-to-unit changes (from 0 to 1, 1 to 2, and so forth) are not statistically significant, the cumulative effect is economically meaningful. For example, the probability of caring about the environment is roughly 20 percentage points higher for an individual with a score of 2 compared with one with a score of 0. These results indicate that environmentally minded behavior emerges only among respondents with relatively high awareness of financially savvy practices related to making considered purchases.

#### [Insert Figures 1-6, here]

### 4.3 The mediating role of financial knowledge

We next venture to better understand the causal pathways between financial knowledge, financial behavior, and environmental attitudes. This setting enables us to understand the effect that financial knowledge has on a good environmental attitude, both *directly* and *indirectly* through financial behavior. We posit that individuals with higher levels of financial knowledge are more likely to adopt sound financial behaviors, such as tracking expenses, saving for medium-term goals, and making considered purchases. These behaviors, in turn, increase the likelihood of caring for the environment and being willing to pay for environmentally friendly products.

We investigate the above mediating relation by estimating a structural equation model (SEM), which is depicted in Figure 7. The rectangles in the path diagram show the observed variables and the estimation model for each case. In this framework, financial knowledge proficiency is specified as an exogenous observed variable, operationalized through respondents' scores on financial knowledge questions. Specifically we use the indicator variable indicating a relatively high score when confronted with the seven questions related to financial knowledge. Financial behavior is measured through three observed indicators (rectangles), namely *FB1* (tracking money flows), *FB2* (saving and medium-term planning), and *FB3* (making considered purchases). The procedure is carried out independently for the three blocks (see tables 9 and 10). The outcome

variables—environmental concern and willingness to pay an environmental premium—are modeled as observed endogenous constructs (rectangles) We model the effect of financial literacy on financial behavior using Ordinal Logit, with the financial behavior score as the dependent variable. <sup>13</sup> The direct and indirect effects of financial knowledge and financial behavior on *ENVIR CONCERN* are estimated through a logit model (the same applies for *ENV PREMIUM*). In this vein, the SEM framework allows us to use a single model to estimate the indirect and total effects of financial literacy components on environmental behavior and to test their significance.

The results reported in Tables 9 and 10 lend support to a meaningful mediation effect. Models (1), (3), and (5) show results from the ordered logit regressions using the *FB* scores as the dependent variable, whereas models (2), (4), and (6) show results from the (binary) logit regressions using *ENVIR CONCERN* and *ENVIR PREMIUM* as the dependent variables. Whilst the direct effect of financial knowledge on environmental caring is small and statistically non-significant, the indirect pathway through financial behavior is both statistically significant and economically meaningful. High financial knowledge scores are associated with better financial behaviors, which, in turn, significantly increase the probability of *ENVIR CONCERN* and *ENVIR PREMIUM*. In both tables, *FB2* and *FB3* emerge as powerful mediators. Specifically, saving and medium-term planning (*FB2*) show a large and significant indirect effect. Similarly, making considered purchases (*FB3*) shows a significant mediation effect. The indirect effect (through financial behavior) appears to drive the total effect, which is statistically significant. On the other hand, tracking money flows does have a statistically significant mediation effect between financial literacy and good environmental behavior.

Overall, the estimates from the SEM indicate that financial knowledge operates primarily through two behavioral channels: saving and long-term planning (FB2), and considered purchasing (FB3). The indirect effects are sizable and statistically significant in both the environmental concern and green premium equations, whilst the direct path from knowledge to outcomes is small and indistinguishable from zero. In other words, knowledge appears to raise pro-environmental

<sup>13</sup> The circles for e1 and e2 indicate the error terms in the underlying regressions.

outcomes only when it is converted into concrete financial habits that reduce short-term pressure and discipline consumption choices. These results are helpful for putting the wide spectrum of prior results in the literature in perspective, recognizing that knowledge alone does not translate into financial behavior. This underscores the importance of translating financial knowledge into action, a notion that aligns with behavioral economics research. This reinforces the idea that financial education programs must emphasize behavioral applications (*e.g.*, budgeting, saving, mindful spending), thus indirectly fostering pro-environmental attitudes.

#### [Insert Tables 9 and 10, here]

# 5 Conclusions

This paper examines whether and how financial literacy relates to environmental concern and the willingness to pay for eco-friendly goods in a nationally representative sample from Cyprus. Our main result is that financial literacy does not, by itself, predict pro-environmental outcomes once behaviors are held constant, but it meaningfully increases the adoption of two financial behavior blocks—saving and medium-term planning, and considered purchasing—that, in turn, raise both environmental concern and the probability of paying a green premium. To identify the mediating role of financial behaviors, we estimate a structural equation model that reveals these mediated pathways account for the statistically significant total effects reported in the outcome models, whilst the direct path from financial knowledge to outcomes is small. Tracking money flows correlates positively with several outcomes in reduced-form models; yet, it does not carry the literacy effect in mediation, suggesting that routine bill management is less pivotal than goal setting and deliberative purchasing for translating knowledge into pro-environmental choices.

The results are consistent with two channels. First, future orientation, *i.e.*, planning and precautionary saving, relaxes short-term liquidity pressures and raises perceived control over future expenses, which lowers the psychological cost of green price premia. Second, deliberation at the point of purchase (*i.e.*, affordability checks and product comparisons) makes life-cycle value and

energy savings more salient relative to upfront prices. This is consistent with the behavioral literature in which actions become habits when they are embedded in simple, repeatable routines, rather than in one-off experiments.

The evidence has practical implications for the design of financial education and sustainability programs. Knowledge-only curricula are unlikely to move environmental outcomes at scale. Interventions that build a small set of financial habits—planning over a 1–2 year horizon, automatic saving for emergencies, and pre-purchase comparison with affordability rules—should be more effective. Program design can further amplify effects by instrumenting the choice environment; for example, by defaulting users into budgeting tools that surface lifecycle costs, or by labeling expected energy savings alongside prices.

The results speak directly to ongoing debates about how to structure national strategies for financial and green financial literacy, particularly within the European Union, where several member states are projected to face severe climate repercussions in the coming decades. In many jurisdictions, sustainable finance is treated as an add on to core financial education rather than as an integrated component. Our results suggest that a more unified approach may have higher payoffs, whereby programs that teach households to plan, save, and evaluate life-cycle costs can simultaneously be the main channel through which individuals learn to navigate green financial products and appraise the long run benefits of cleaner technologies. For countries that confront significant physical and transition risks, embedding green financial content into mainstream financial literacy initiatives and coordinating these efforts with climate policy and consumer protection frameworks can help strengthen household resilience while supporting the uptake of low carbon goods and services. We also suspect that a more future-oriented outlook may have other spillover benefits outside of the environment, including those related to social capital and savings, which feed into other national strategies.

We nonetheless recognize a handful of limitations in this analysis. First, the data are cross-sectional, and the sample size is limited. Ideally, we would have larger longitudinal samples to purge unobserved heterogeneity and isolate learning about finances over time. Second, our sample

is Cyprus-specific, which may be subject to unique cultural and economic institutions. Finally, the third financial behavior block we employ includes a trust-in-professionals item that could proxy for deference rather than deliberation; the positive association should not be over-interpreted as a normative endorsement of any specific advisory model. Moreover, we would like to have longitudinal information on observed behavior that could be validated by other external sources rather than being self-reported. We leave these for future research.

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# **Tables**

**Table 1. Summary statistics**This table provides summary statistics for all variables used in the empirical estimations.

Variable	Mean	Median	SD	Min	Max
ENVIR CONCERN	0.759	1	0.428	0	1
ENVIR PREMIUM	0.53	1	0.499	0	1
FB1	0.736	1	0.441	0	1
FB2	1.461	1	1.082	0	3
FB3	1.905	2	0.806	0	3
QFB1	0.736	1	0.441	0	1
QFB2	0.300	0	0.458	0	1
QFB3	0.559	1	0.497	0	1
QFB4	0.602	1	0.49	0	1
QFB5	0.268	0	0.443	0	1
QFB6	0.824	1	0.381	0	1
QFB7	0.813	1	0.39	0	1
FKP	0.201	0	0.401	0	1
FEMALE	0.517	1	0.5	0	1
AGE	2.447	2	1.214	1	5
HIGH INCOME	0.128	0	0.334	0	1
UNIVERSITY	0.713	1	0.453	0	1
MATH SKILLS	3.637	4	1.129	1	5
NUMERICAL	0.513	1	0.500	0	1
INFORMATION					
ONLINE BANKING	0.867	1	0.340	0	1
FINANCIAL NEWS	0.679	1	0.467	0	1
RELEVANT DEGREE	0.276	0	0.447	0	1

Table 2. Patterns of responses to financial knowledge questions

This table presents the patterns of responses to the seven financial knowledge questions tabulated across the two indicators that capture environmental attitudes (environmental concern and willingness to pay a premium for environmental friendly products), and the entire sample. Table A1 details the context of each question.

	Conc	ern	No co	ncern	Entire s	ample
_	Freq.	%	Freq.	o/o	Freq.	%
QFK1. Compound interest calculation						
Correct	451	49.51	115	39.79	566	47.17
Wrong	378	41.49	127	43.94	505	42.08
Don't know / Don't answer	82	9.00	47	16.26	129	10.75
QFK2. Understanding of inflation						
Correct	773	84.85	218	75.43	991	82.58
Wrong	64	7.03	19	6.57	83	6.92
Don't know / Don't answer	74	8.12	52	17.99	126	10.50
QFK3. Consequences of inflation						
Correct	597	65.53	157	54.33	754	62.83
Wrong	141	15.48	46	15.92	187	15.58
Don't know / Don't answer	173	18.99	86	29.76	259	21.58
QFK4. Benefits of risk diversification						
Correct	188	20.64	48	16.61	236	19.67
Wrong	424	46.54	118	40.83	542	45.17
Don't know / Don't answer	299	32.82	123	42.56	422	35.17
QFK5. Risk return						
Correct	155	17.01	46	15.92	201	16.75
Wrong	654	71.79	188	65.05	842	70.17
Don't know / Don't answer	102	11.20	55	19.03	157	13.08
QFK6. Understanding of APR						
Correct	320	35.13	74	25.61	394	32.83
Wrong	129	14.16	45	15.57	174	14.50
Don't know / Don't answer	462	50.71	170	58.82	632	52.67
QFK7. Awareness of crucial banking iss	sues					
Correct	505	55.43	110	38.06	615	51.25
				<i>a</i>		_

Wrong	208	22.83	84	29.07	292	24.33
Don't know / Don't answer	198	21.73	95	32.87	293	24.42

Panel B: Paying more for environmentally-friendly products

	Willing	to pay	Not willin	ng to pay	Entire s	ample
_	Freq.	%	Freq.	%	Freq.	%
QFK1. Compound interest calculation						
Correct	317	49.84	249	44.15	566	47.17
Wrong	260	40.88	245	43.44	505	42.08
Don't know / Don't answer	59	9.28	70	12.41	129	10.75
QFK2. Understanding of inflation						
Correct	543	85.38	448	79.43	991	82.58
Wrong	44	6.92	39	6.91	83	6.92
Don't know / Don't answer	49	7.70	77	13.65	126	10.50
QFK3. Consequences of inflation						
Correct	415	65.25	339	60.11	754	62.83
Wrong	106	16.67	81	14.36	187	15.58
Don't know / Don't answer	115	18.08	144	25.53	259	21.58
QFK4. Benefits of risk diversification						
Correct	142	22.33	94	16.67	236	19.67
Wrong	296	46.54	246	43.62	542	45.17
Don't know / Don't answer	198	31.13	224	39.72	422	35.17
QFK5. Risk-return						
Correct	119	18.71	82	14.54	201	16.75
Wrong	452	71.07	390	69.15	842	70.17
Don't know / Don't answer	65	10.22	92	16.31	157	13.08
QFK6. Understanding of APR						
Correct	230	36.16	164	29.08	394	32.83
Wrong	84	13.21	90	15.96	174	14.50
Don't know / Don't answer	322	50.63	310	54.96	632	52.67
QFK7. Awareness of crucial banking is	sues					
Correct	342	53.77	273	48.40	615	51.25
Wrong	160	25.16	132	23.40	292	24.33
Don't know / Don't answer	134	21.07	159	28.19	293	24.42

Table 3. Environmental concern and financial savvy behaviours

This table reports coefficient estimates and robust standard errors (in parentheses) from regressions for the estimated effects of financial savvy behaviours on environmental concern. The dependent variable is ENVIR CONCERN, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "I am interested in issues related to the environment and climate change", and zero otherwise. The financial behaviour score for each block is computed as the average score of financially savvy behaviours. FB1 is related to keeping track of money flows, FB2 to saving and long-term planning, and FB3 to making considered purchases. Table A2 details the context of each question, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise. Estimation method is OLS regression with robust standard errors. The lower part of the table reports the number of observations and Adjusted R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
FB1	0.094***			0.094***		
	(0.030)			(0.030)		
FB2		0.045***			0.044***	
		(0.012)			(0.012)	
FB3			0.088***			0.087***
			(0.016)			(0.016)
FKP				0.031	0.020	0.019
				(0.028)	(0.029)	(0.028)
GENDER	0.012	0.022	0.019	0.016	0.024	0.022
	(0.025)	(0.024)	(0.024)	(0.025)	(0.024)	(0.024)
AGE	0.039***	0.050***	0.038***	0.037***	0.048***	0.037***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
HIGH INCOME	0.070***	0.050	0.077**	0.064**	0.048	0.062**
	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
UNIVERSITY	0.101***	0.091***	0.094***	0.098***	0.090***	0.092***
	(0.029)	(0.029)	(0.028)	(0.029)	(0.029)	(0.029)
MATH SKILLS	0.040***	0.035***	0.034***	0.039***	0.034***	0.033***
	0.011	0.011	0.011	(0.011)	(0.011)	(0.011)
Constant	0.487***	0.465***	0.389***	0.365***	0.367***	0.293***
	(0.045)	(0.044)	(0.048)	(0.057)	(0.056)	(0.059)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200
Adj. R-squared	0.057	0.059	0.074	0.056	0.059	0.074

Table 4. Environmental concern and and financial savvy behaviour questions

This table reports coefficient estimates and robust standard errors (in parentheses) from regressions for the estimated effects of financial savvy behaviours on the environmental concern. The dependent variable is ENVIR CONCERN, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "*I am interested in issues related to the environment and climate change*", and zero otherwise. Table A2 details the context of each question, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise. Estimation method is OLS regression with robust standard errors. The lower part of the table reports the number of observations and R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
QFB1	0.094***						
	(0.030)						
QFB2		0.007					
		(0.026)					
QFB3			0.086***				
			(0.025)				
QFB4				0.111***			
				(0.026)			
QFB5					0.053**		
					(0.026)		
QFB6						0.159***	
						(0.035)	
QFB7							0.145***
							(0.035)
FKP	0.031	0.030	0.023	0.023	0.030	0.023	0.021
	(0.028)	(0.029)	(0.029)	(0.028)	(0.028)	(0.028)	(0.028)
GENDER	0.016	0.018	0.020	0.024	0.019	0.021	0.019
	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.024)	(0.025)
AGE	0.037***	0.043***	0.045***	0.047***	0.040***	0.042***	0.040***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
HIGH INCOME	0.067**	0.061**	0.055*	0.051*	0.065**	0.063**	0.054*
	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
UNIVERSITY	0.098***	0.100***	0.094***	0.092***	0.094***	0.101***	0.103***
	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)
MATH SKILLS	0.039***	0.041***	0.036***	0.034***	0.040***	0.036***	0.037***

	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Constant	0.365***	0.409***	0.382***	0.365***	0.411***	0.300***	0.317***
	(0.057)	(0.056)	(0.055)	(0.056)	(0.056)	(0.060)	(0.060)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Adj. R-squared	0.062	0.053	0.062	0.068	0.056	0.073	0.070

Table 5. Environmental premium and financial savvy behaviours

This table reports coefficient estimates and robust standard errors (in parentheses) from regressions for the estimated effects of financial savvy behaviours on the environmental premium. The dependent variable is ENVIR PREMIUM, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "I am willing to pay more for environmentally friendly products", and zero otherwise. The financial behaviour score for each block is computed as the average score of financially savvy behaviours. FB1 is related to keeping track of money flows, FB2 to saving and long-term planning, and FB3 to making considered purchases. Table A2 details the context of each question, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise. Estimation method is OLS regression with robust standard errors. The lower part of the table reports the number of observations and Adjusted R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
FB1	0.118***			0.118***		
	(0.033)			(0.033)		
FB2		0.087***			0.086***	
		(0.013)			(0.014)	
FB3			0.097***			0.096***
			(0.017)			(0.017)
FKP				0.037	0.015	0.024
				(0.037)	(0.037)	(0.037)
GENDER	0.100***	0.118***	0.108***	0.104***	0.120***	0.111***
	(0.029)	(0.028)	(0.029)	(0.029)	(0.029)	(0.029)
AGE	0.047***	0.064***	0.047***	0.045***	0.046***	
	(0.012)	(0.012)	(0.012)	(0.013)	(0.012)	(0.012)
HIGH INCOME	-0.013	-0.050	-0.021	-0.017	-0.051	-0.023
	(0.043)	(0.043)	(0.042)	(0.043)	(0.043)	(0.043)
UNIVERSITY	0.099**	0.079***	0.092***	0.096***	0.077**	0.089***
	(0.032)	(0.031)	(0.031)	(0.032)	(0.032)	(0.032)
MATH SKILLS	0.042***	0.030***	0.036***	0.042***	0.030**	0.036***
	0.013	0.013	0.013	(0.013)	(0.013)	(0.013)
Constant	0.052	0.026	-0.018	0.057	0.028	-0.014
	(0.048)	(0.073)	(0.061)	(0.062)	(0.061)	(0.062)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200
Adj. R-squared	0.049	0.070	0.061	0.049	0.070	0.061

Table 6. Environmental premium and and financial savvy behaviour questions

This table reports coefficient estimates and robust standard errors (in parentheses) from regressions for the estimated effects of financial savvy behaviours on the environmental premium. The dependent variable is ENVIR PREMIUM, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "*I am willing to pay more for environmentally friendly products*", and zero otherwise. Table A2 details the context of each question, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise. Estimation method is OLS regression with robust standard errors. The lower part of the table reports the number of observations and R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
QFB1	0.118***						
	(0.033)						
QFB2		0.048					
		(0.032)					
QFB3			0.158***				
			(0.029)				
QFB4				0.198***			
				(0.029)			
QFB5					0.107***		
					(0.032)		
QFB6						0.126***	
						(0.037)	
QFB7							0.143***
							(0.036)
FKP	0.037	0.033	0.022	0.022	0.035	0.031	0.028
	(0.037)	(0.037)	(0.037)	(0.037)	(0.036)	(0.037)	(0.037)
GENDER	0.104***	0.111***	0.110***	0.118***	0.109***	0.109***	0.108***
	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)
AGE	0.045***	0.055***	0.057***	0.060***	0.047***	0.051***	0.049***
	(0.013)	(0.013)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
HIGH INCOME	-0.017	-0.030	-0.037	-0.043	-0.017	-0.023	-0.032
	(0.043)	(0.044)	(0.043)	(0.043)	(0.043)	(0.044)	(0.043)
UNIVERSITY	0.096***	0.094***	0.086***	0.084***	0.086***	0.099***	0.101***
	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)	(0.032)
MATH SKILLS	0.041***	0.042***	0.033***	0.031**	0.041***	0.040***	0.039***

	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Constant	0.057	0.102*	0.063	0.032	0.115*	0.027	0.022
	(0.062)	(0.061)	(0.060)	(0.060)	(0.060)	(0.064)	(0.064)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200	1,200
R-squared	0.054	0.045	0.067	0.079	0.052	0.053	0.056

Table 7. Environmental concern and financial savvy behaviours: Ordered logit

This table reports marginal effects from ordered logit regressions for the estimated effects of financial savvy behaviours on the environmental concern. The dependent variable is an ordered variable that takes value from one to five, where one corresponds to completely disagree and five to completely agree to the statement "I am interested in issues related to the environment and climate change". The financial behaviour score for each block is computed as the average score of financially savvy behaviours related to keeping track of money flows (FB1), saving and long-term planning (FB2), and making considered purchases (FB3), whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. Coefficient estimates show the marginal probability the financial behaviour score to increase relative to the baseline value of zero. Column (1) corresponds to FB1 score change from zero to one, columns (2)-(4) correspond to FB2 change from zero to one, two and three, respectively, and columns (5)-(7) correspond to FB3 score change from zero to one, two and three, respectively. All estimations use the control variables as in Tables 4 and 6, which are set to their sample mean for the calculation of the marginal effects. The Table also reports the p-value of the Likelihood Ratio (LR) Statistic and the McFadden's Pseudo R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	FB1=1	FB2=1	FB2=2	FB2=3	FB3=1	FB3=2	FB3=3
Completely disagree	-0.012***	-0.019***	-0.021***	-0.018***	-0.024**	-0.034***	-0.041***
	(0.004)	(0.005)	(0.005)	(0.006)	(0.012)	(0.012)	(0.012)
Disagree	-0.013***	-0.020***	-0.023***	-0.020***	-0.024**	-0.035***	-0.044***
	(0.004)	(0.006)	(0.006)	(0.006)	(0.012)	(0.012)	(0.012)
Neutral	-0.063***	-0.096***	-0.114***	-0.095***	-0.089**	-0.145***	-0.197***
	(0.017)	(0.022)	(0.022)	(0.024)	(0.036)	(0.033)	(0.035)
Agree	-0.025***	-0.027***	-0.040***	-0.026**	0.017	-0.002	-0.047**
	(0.006)	(0.010)	(0.011)	(0.010)	(0.015)	(0.016)	(0.021)
Completely agree	0.113***	0.161***	0.198***	0.159***	0.120***	0.216***	0.329***
	(0.029)	(0.035)	(0.036)	(0.039)	(0.046)	(0.041)	(0.048)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200	1,200
LR Test (p-value)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R-squared	0.032	0.034	0.034	0.034	0.042	0.042	0.042

Table 8. Environmental premium and financial savvy behaviours: Ordered logit

This table reports marginal effects from ordered logit regressions for the estimated effects of financial savvy behaviours on the environmental premium. The dependent variable is an ordered variable that takes value from one to five, where one corresponds to completely disagree and five to completely agree to the statement "I am willing to pay more for environmentally friendly products". The financial behaviour score for each block is computed as the average score of financially savvy behaviours related to keeping track of money flows (FB1), saving and long-term planning (FB2), and making considered purchases (FB3), whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. Coefficient estimates show the marginal probability the financial behaviour score to increase relative to the baseline value of zero. Column (1) corresponds to FB1 score change from zero to one, columns (2)-(4) correspond to FB2 change from zero to one, two and three, respectively, and columns (5)-(7) correspond to FB3 score change from zero to one, two and three, respectively. All estimations use the control variables as in Tables 4 and 6, which are set to their sample mean for the calculation of the marginal effects. The Table also reports the p-value of the Likelihood Ration (LR) Statistic (p-value) and the McFadden's Pseudo R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	FB1=1	FB2=1	FB2=2	FB2=3	FB3=1	FB3=2	FB3=3
Completely disagree	-0.028***	-0.061***	-0.071***	-0.067***	-0.043*	-0.056**	-0.081***
	(0.009)	(0.013)	(0.013)	(0.014)	(0.024)	(0.023)	(0.023)
Disagree	-0.031***	-0.062***	-0.074***	-0.069***	-0.040*	-0.054***	-0.085***
	(0.010)	(0.013)	(0.013)	(0.013)	(0.021)	(0.020)	(0.021)
Neutral	-0.044***	-0.070***	-0.097***	-0.084***	-0.031**	-0.051***	-0.114***
	(0.012)	(0.015)	(0.016)	(0.017)	(0.014)	(0.011)	(0.019)
Agree	0.047***	0.100***	0.117***	0.110***	0.065*	0.088***	0.126***
	(0.015)	(0.020)	(0.019)	(0.020)	(0.034)	(0.031)	(0.031)
Completely agree	0.056***	0.092***	0.125***	0.109***	0.049**	0.074***	0.153***
	(0.015)	(0.018)	(0.020)	(0.022)	(0.023)	(0.020)	(0.028)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200	1,200
LR Test (p-value)	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R-square	0.032	0.025	0.031	0.031	0.030	0.030	0.030

Table 9. Environmental concern and financial savvy behaviours: Structural estimation model

This table reports marginal effects and robust standard errors (in parentheses) from logit regressions for the estimated effects of financial knowledge on the environmental concern with financial savvy behaviours as the mediating factor (columns (2), (4) and (6)). Columns (1), (3) and (5) report results from ordered logit regressions with financial savvy behaviours as the dependent variable. ENVIR CONCERN is a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "I am interested in issues related to the environment and climate change", and zero otherwise. The financial behaviour score for each block is computed as the average score of financially savvy behaviours related to keeping track of money flows (FB1), saving and long-term planning (FB2), and making considered purchases (FB3), whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. All independent variables are set to their sample mean. The lower part of the table reports the indirect effect, the total effect and the number of observations. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) FB1	(2) ENVIR CONCERN	(3) FB2	(4) ENVIR CONCERN	(5) FB3	(6) ENVIR CONCERN
GENDER	0.117	0.0810	-0.253**	0.141	-0.147	0.114
	(0.136)	(0.142)	(0.107)	(0.143)	(0.114)	(0.144)
AGE	0.320***	0.214***	-0.231***	0.290***	0.171***	0.218***
	(0.0619)	(0.0632)	(0.0463)	(0.0643)	(0.0491)	(0.0632)
HIGH INCOME	-0.260	0.650**	0.649***	0.505*	0.0387	0.605**
	(0.212)	(0.272)	(0.165)	(0.274)	(0.173)	(0.274)
UNIVERSITY	0.138	0.602***	0.524***	0.532***	0.329***	0.576***
	(0.149)	(0.149)	(0.118)	(0.150)	(0.124)	(0.151)
FB		0.526***		0.290***		0.514***
		(0.150)		(0.0679)		(0.0863)
FKP	0.0642	0.298	0.565***	0.208	0.350**	0.207
	(0.181)	(0.201)	(0.138)	(0.203)	(0.146)	(0.204)
Constant		-0.294	-0.449*		-0.843***	
		(0.227)	(0.237)		(0.257)	
Indirect effect		0.033		0.164***		0.179**
		(0.095)		(0.055)		(0.081)
Total effect		0.332		0.372*		0.386*
		(0.222)		(0.207)		(0.216)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200

Table 10. Environmental premium and financial savvy behaviours: Structural estimation model

This table reports marginal effects and robust standard errors (in parentheses) from logit regressions for the estimated effects of financial knowledge on the environmental premium with financial savvy behaviours as the mediating factor (columns (2), (4) and (6)). Columns (1), (3) and (5) report results from ordered logit regressions with financial savvy behaviours as the dependent variable. ENVIR PREMIUM, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "*I am willing to pay more for environmentally friendly products*", and zero otherwise. The financial behaviour score for each block is computed as the average score of financially savvy behaviours related to keeping track of money flows (FB1), saving and long-term planning (FB2), and making considered purchases (FB3), whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. All independent variables are set to their sample mean. The lower part of the table reports the indirect effect, the total effect and the number of observations. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1) FB1	(2) ENVIR PREMIUM	(3) FB2	(4) ENVIR PREMIUM	(5) FB3	(6) ENVIR PREMIUM
GENDER	0.117	0.434***	-0.253**	0.518***	-0.147	0.469***
	(0.136)	(0.123)	(0.107)	(0.125)	(0.114)	(0.124)
AGE	0.320***	0.190***	-0.231***	0.279***	0.171***	0.195***
	(0.0619)	(0.0534)	(0.0463)	(0.0548)	(0.0491)	(0.0534)
HIGH INCOME	-0.260	-0.00592	0.649***	-0.184	0.0387	-0.0457
	(0.212)	(0.188)	(0.165)	(0.192)	(0.173)	(0.189)
UNIVERSITY	0.138	0.468***	0.524***	0.375***	0.329***	0.434***
	(0.149)	(0.134)	(0.118)	(0.137)	(0.124)	(0.135)
FB		0.515***		0.391***		0.434***
		(0.136)		(0.0586)		(0.0772)
FKP	0.0642	0.213	0.565***	0.102	0.350**	0.149
	(0.181)	(0.157)	(0.138)	(0.160)	(0.146)	(0.158)
Constant		-1.321***		-1.657***		-1.755***
		(0.212)		(0.222)		(0.239)
Indirect effect		0.033		0.221***		0.152**
		(0.093)		(0.063)		(0.068)
Total effect		0.246		0.322*		0.301*
		(0.182)		(0.169)		(0.171)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200

### **Figures**

### Figure 1. Environmental concern and keeping track of money flows

This figure shows marginal effects from ordered logit regressions for the estimated effects of financial savvy behaviours on the environmental concern. The dependent variable is the response to the statement "I am interested in issues related to the environment and climate change", taking values from 1-5 (1 being completely disagree and 5 being completely agree). The financial behaviour score for the first block (FB1) is computed as the average score of financially savvy behaviours related to keeping track of money flows, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. Coefficient estimates show the marginal probability the response was "I completely agree". All independent variables are set to their sample mean.

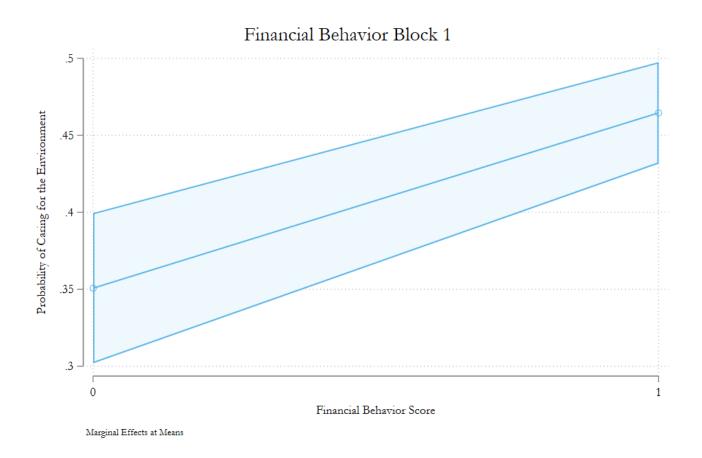
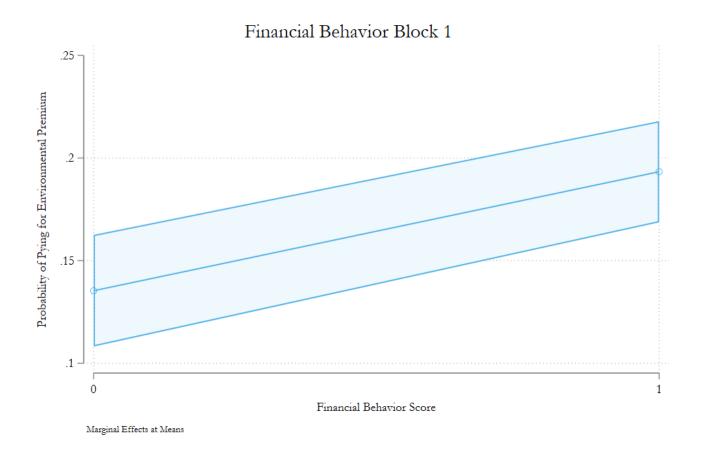


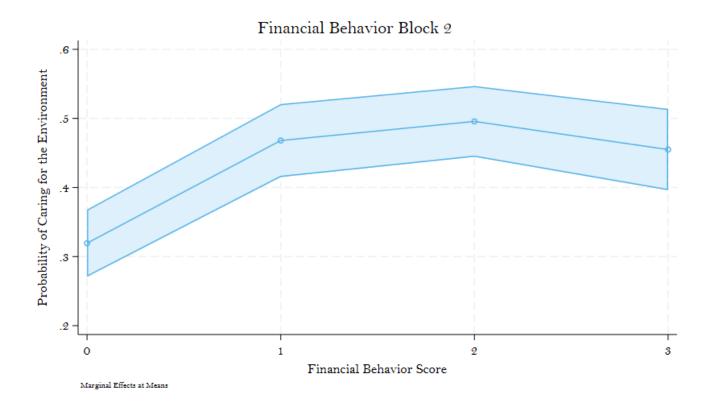
Figure 2. Environmental premium and keeping track of money flows

This figure shows marginal effects from ordered logit regressions for the estimated effects of financial savvy behaviours on the environmental premium. The dependent variable is the response to the statement "I am willing to pay more for environmentally friendly products", taking values from 1-5 (1 being completely disagree and 5 being completely agree). The financial behaviour score for the first block (FB1) is computed as the average score of financially savvy behaviours keeping track of money flows, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. Coefficient estimates show the marginal probability the response was "I completely agree". All independent variables are set to their sample mean.



#### Figure 3. Environmental concern and saving and long-term planning

This figure shows marginal effects from ordered logit regressions for the estimated effects of financial savvy behaviours on the environmental concern. The dependent variable is the response to the statement "I am interested in issues related to the environment and climate change", taking values from 1-5 (1 being completely disagree and 5 being completely agree). The financial behaviour score for the second block (FB2) is computed as the average score of financially savvy behaviours related to saving and long-term planning (FB2), whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. Coefficient estimates show the marginal probability the response was "I completely agree". All independent variables are set to their sample mean.



#### Figure 4. Environmental premium and saving and long-term planning

This figure shows marginal effects from ordered logit regressions for the estimated effects of financial savvy behaviours on the environmental premium. The dependent variable is the response to the statement "I am willing to pay more for environmentally friendly products", taking values from 1-5 (1 being completely disagree and 5 being completely agree). The financial behaviour score for the second block (FB2) is computed as the average score of financially savvy behaviours related to saving and long-term planning (FB2), whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. Coefficient estimates show the marginal probability the response was "I completely agree". All independent variables are set to their sample mean.

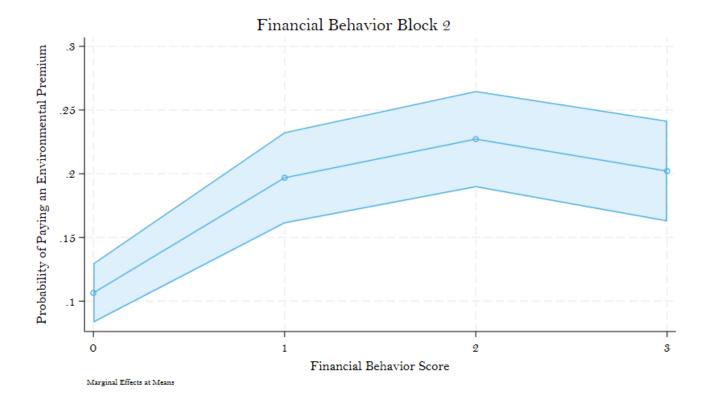
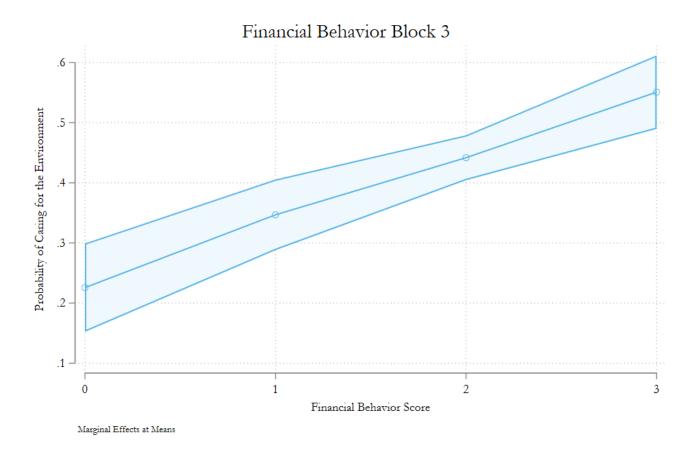


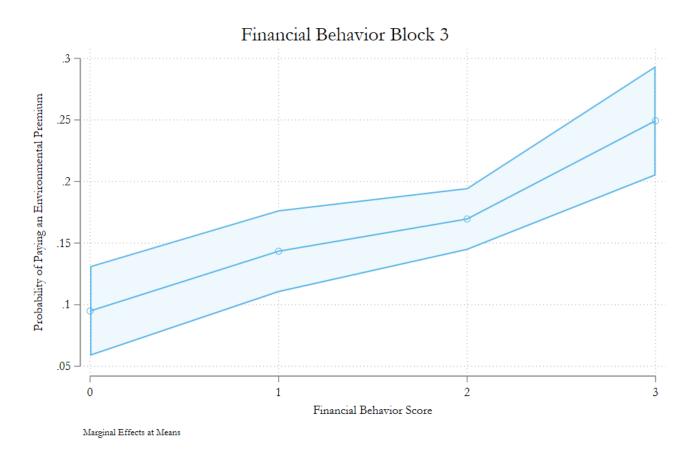
Figure 5. Environmental concern and making considered purchases

This figure shows marginal effects from ordered logit regressions for the estimated effects of financial savvy behaviours on the environmental concern. The dependent variable is the response to the statement "I am interested in issues related to the environment and climate change", taking values from 1-5 (1 being completely disagree and 5 being completely agree). The financial behaviour score for the second block (FB3) is computed as the average score of financially savvy behaviours related to making considered purchases, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. Coefficient estimates show the marginal probability the response was "I completely agree". All independent variables are set to their sample mean.



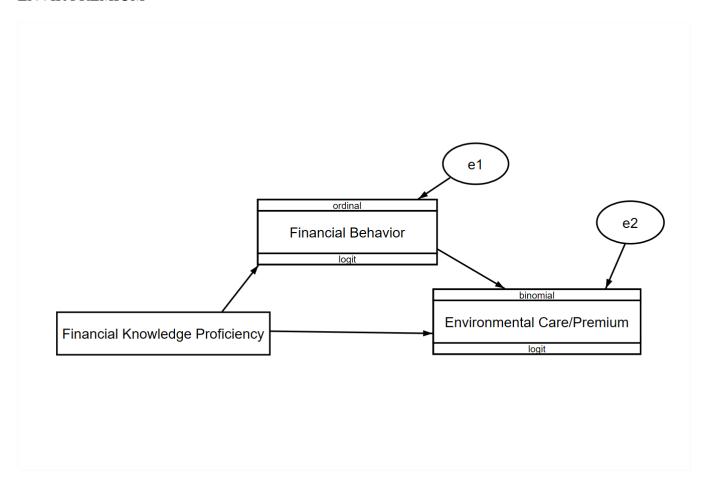
#### Figure 6. Environmental premium and making considered purchases

This figure shows marginal effects from ordered logit regressions for the estimated effects of financial savvy behaviours on the environmental premium. The dependent variable is the response to the statement "I am willing to pay more for environmentally friendly products", taking values from 1-5 (1 being completely disagree and 5 being completely agree). The financial behaviour score for the second block (FB3) is computed as the average score of financially savvy behaviours related to making considered purchases, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement and zero otherwise. Table A2 details the context of each question. Coefficient estimates show the marginal probability the response was "I completely agree". All independent variables are set to their sample mean.



### Figure 7. Path diagram

This figure shows the mediation effect of financial savvy behaviours in the relationship between financial knowledge and good environmental attitudes. The effect of financial literacy on financial savvy behaviours (using the scores for FB1, FB2 and FB3) is estimated through an Ordered Logit regression. The direct and indirect effect of financial literacy on Environmental Care is estimated through a binary Logit model using ENVIR CONCERN as the dependent variable. The same scheme applies when we estimate the effects on ENVIR PREMIUM



## **Appendix**

### **Table A1. Financial knowledge questions**

This table lists the survey questions to capture the financial knowledge of respondents. The second column lists the question topic, the third column provides the detailed wording of the question, and the fourth column lists the available answer options per question. The knowledge score is computed as the average score of correct responses to seven financial knowledge questions (QFK1 to QFK7), whereby each correct answer takes a score of one and all others take a score of zero.

No	Question topic	Question wording	Answer options
			(correct answer
			with <b>bold</b> ).
QFK1	Compound	Suppose you put €100 into a (no fee, tax-free) savings account	Exactly €102
	interest	with a guaranteed interest rate of 2% per year. You don't make	Less than €102
	calculation	any further payments into this account, and you don't withdraw	More than €102
		any money. How much would be in the account at the end of five years?	Don't know/Don't answer
QFK2	Understanding	High inflation means that the cost of living is	True
	of inflation	increasing rapidly.	False
			Don't know/Don't answer
QFK3	Consequences of infla-	Imagine that the interest rate on your savings account was 1% per	More than today
	tion	year and inflation was 2% per year. After one year, how much	Exactly the same
		would you be able to buy with the money in the account?	Less than today
			Don't know/Don't answer
QFK4	Benefits of risk diversi-	Investing €10,000 in a single company's stock usually provides	True
	fication	a safer return compared to investing €10,000 in a stock mutual	False
		fund.	Don't know/Don't answer
QFK5	Risk return	If someone offers you an investment opportunity with high ex-	True
		pected returns, then the investment likely involves low risk.	False
			Don't know/Don't answer
			Continued on the next page

QFK6	Understanding	The Annual Percentage Rate (APR) is the	True
	of APR	appropriate tool to consider when assessing loans offered by dif-	False
		ferent banks.	Don't know/Don't answer
QFK7	Awareness of	What is the deposit guarantee limit in Cyprus per depositor, per	Open response
	crucial banking	credit institution?	(€100,000)
	issues		Don't know/Don't answer

#### Table A2. Financial behaviour questions

QFB7

This table lists the survey questions used to capture "financially savvy" behaviour. Participants are asked to indicate on a scale of one to five—where one corresponds to completely disagree and five to completely agree—the extent to which they agree or disagree with each statement. The behaviour score is computed as the average score of financially savvy behaviours relating to keeping track of money flows (*FB1*), saving and medium-term planning (*FB2*), and making considered purchases (*FB3*), whereby a behaviour is scored as one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise.

No	Question wording
FB1: K	Keeping track of money flows
QFB1	I keep track of upcoming bills to make sure I do not miss them.
FB2: S	aving and medium-term planning
QFB2	I have saved money over the past 12 months.
QFB3	I save money to be able to handle any unexpected expenses that may arise.
QFB4	I set financial goals for the next 1-2 years.
FB3: N	Making considered purchases
QFB5	I trust financial professionals for my investment decisions because they always serve my
	financial interests.
QFB6	Before buying something, I compare prices.

Before buying something, I carefully consider whether I can afford it.

Table A3. Environmental concern and financial savvy behaviours with DK/NA

This table reports coefficient estimates and robust standard errors (in parentheses) from regressions for the estimated effects of financial savvy behaviours on the environmental concern. The dependent variable is ENVIR CONCERN, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "I am interested in issues related to the environment and climate change" or provides a DK/NA, and zero otherwise. The financial behaviour score for each block is computed as the average score of financially savvy behaviours. FB1 is related to keeping track of money flows, FB2 to saving and long-term planning, and FB3 to making considered purchases. Table A2 details the context of each question, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise. Estimation method is OLS regression with robust standard errors. The lower part of the table reports the number of observations and R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
FB1	0.024			0.022		
	(0.016)			(0.017)		
FB2		0.010			0.008	
		(0.007)			(0.007)	
FB3			0.032***			0.030***
			(0.009)			(0.009)
FK				0.004	0.002	0.001
				(0.014)	(0.014)	(0.014)
GENDER	0.009	0.012	0.012	0.011	0.012	0.012
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
AGE	0.019***	0.022***	0.018***	0.019***	0.021***	0.018***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
HIGH INCOME	0.002	-0.004	-0.001	-0.004	-0.008	-0.005
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
UNIVERSITY	0.049***	0.046***	0.045***	0.043**	0.042**	0.041**
	(0.017)	(0.017)	(0.016)	(0.017)	(0.017)	(0.017)
MATH SKILLS				0.012*	0.011*	0.010
				(0.007)	(0.007)	(0.007)
Constant				0.802***	0.805***	0.772***
				(0.033)	(0.033)	(0.037)
Obs.				1,200	1,200	1,200
R-squared				0.025	0.025	0.034

Table A4. Environmental premium and financial savvy behaviours with DK/NA

This table reports coefficient estimates and robust standard errors (in parentheses) from regressions for the estimated effects of financial savvy behaviours on the environmental premium. The dependent variable is ENVIR PREMIUM, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "I am willing to pay more for environmentally friendly products" or provides a DK/NA, and zero otherwise. The financial behaviour score for each block is computed as the average score of financially savvy behaviours. FB1 is related to keeping track of money flows, FB2 to saving and long-term planning, and FB3 to making considered purchases. Table A2 details the context of each question, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise. Estimation method is OLS regression with robust standard errors. The lower part of the table reports the number of observations and R-squared. The \*\*\*, \*\*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
FB1	0.029			0.024		
	(0.025)			(0.026)		
FB2		0.035***			0.029***	
		(0.011)			(0.011)	
FB3			0.051***			0.045***
			(0.013)			(0.013)
FK				0.004	-0.003	-0.002
				(0.026)	(0.026)	(0.026)
GENDER	0.049**	0.056***	0.052**	0.051**	0.056***	0.054**
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
AGE	0.044***	0.049***	0.041***	0.042***	0.048***	0.041***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
HIGH INCOME	-0.024	-0.040	-0.028	-0.039	-0.050	-0.040
	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
UNIVERSITY	0.134***	0.123***	0.127***	0.118***	0.112***	0.115***
	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)
MATH SKILLS				0.035***	0.031***	0.032***
				(0.011)	(0.011)	(0.010)
Constant	0.585***	0.548***	0.518***	0.475***	0.457***	0.426***
	(0.040)	(0.041)	(0.045)	(0.052)	(0.052)	(0.055)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200
R-squared	0.044	0.053	0.055	0.055	0.060	0.063

Table A5. Environmental concern and financial savvy behaviour questions with DK/NA

The table reports coefficient estimates and robust standard errors (in parentheses) from regressions for the estimated effects of financial savvy behaviours on the environmental concern. The dependent variable is ENVIR CONCERN, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "*I am interested in issues related to the environment and climate change*" or provides a DK/NA, and zero otherwise. Table A2 details the context of each question, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise. Estimation method is OLS regression with robust standard errors. The lower part of the table reports the number of observations and R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
QFB1	0.022						
	(0.017)						
QFB2		0.004					
		(0.014)					
QFB3			0.010				
			(0.014)				
QFB4				0.025*			
				(0.015)			
QFB5					0.028**		
					(0.012)		
QFB6						0.042**	
						(0.021)	
QFB7							0.050**
							(0.021)
FK	0.004	0.004	0.004	0.003	0.004	0.003	0.001
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
GENDER	0.011	0.011	0.011	0.013	0.012	0.012	0.011
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
AGE	0.019***	0.020***	0.020***	0.021***	0.019***	0.020***	0.019***
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
HIGH INCOME	-0.004	-0.005	-0.006	-0.008	-0.003	-0.005	-0.008
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
UNIVERSITY	0.043**	0.043**	0.043**	0.042**	0.041**	0.044***	0.045***
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)
MATH SKILLS	0.012*	0.013*	0.012*	0.011	0.012*	0.011*	0.011*

	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Constant	0.802***	0.812***	0.810***	0.803***	0.813***	0.784***	0.781***
	(0.033)	(0.033)	(0.033)	(0.033)	(0.033)	(0.037)	(0.037)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200	1,200
R-squared	0.025	0.024	0.024	0.026	0.026	0.028	0.031

Table A6. Environmental concern and financial savvy behaviour questions with DK/NA

The table reports coefficient estimates and robust standard errors (in parentheses) from regressions for the estimated effects of financial savvy behaviours on the environmental premium. The dependent variable is ENVIR PREMIUM, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "*I am willing to pay more for environmentally friendly products*" or provides a DK/NA, and zero otherwise. Table A2 details the context of each question, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise. Estimation method is OLS regression with robust standard errors. The lower part of the table reports the number of observations and R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
QFB1	0.024						
	(0.026)						
QFB2		0.017					
		(0.024)					
QFB3			0.060***				
			(0.022)				
QFB4				0.061***			
				(0.023)			
QFB5					0.073***		
					(0.021)		
QFB6						0.044	
						(0.030)	
QFB7							0.053*
							(0.030)
FK	0.004	0.003	-0.001	-0.000	0.003	0.002	0.001
	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)
GENDER	0.051**	0.053**	0.053**	0.055***	0.053**	0.053**	0.052**
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)
AGE	0.042***	0.045***	0.046***	0.046***	0.041***	0.043***	0.043***
	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
HIGH INCOME	-0.039	-0.042	-0.045	-0.046	-0.036	-0.040	-0.043
	(0.031)	(0.032)	(0.031)	(0.031)	(0.031)	(0.031)	(0.031)
UNIVERSITY	0.118***	0.117***	0.114***	0.114***	0.110***	0.119***	0.120***
	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)	(0.026)
MATH SKILLS	0.035***	0.035***	0.032***	0.032***	0.034***	0.034***	0.034***

	(0.011)	(0.010)	(0.011)	(0.011)	(0.010)	(0.010)	(0.010)
Constant	0.475***	0.482***	0.467***	0.461***	0.487***	0.456***	0.453***
	(0.052)	(0.051)	(0.051)	(0.051)	(0.051)	(0.055)	(0.055)
Obs.	1,200	1,200	1,200	1,200	1,200	1,200	1,200
R-squared	0.055	0.054	0.060	0.060	0.061	0.056	0.057

Table A7. Environmental concern/premium and financial savvy behaviours

This table reports coefficient estimates and robust standard errors (in parentheses) from regressions for the estimated effects of financial savvy behaviours on environmental concern. The dependent variable is ENVIR CONCERN, a binary variable that takes the value of one if participant "completely agrees" or "agrees" with the statement "I am interested in issues related to the environment and climate change", and zero otherwise. The financial behaviour score for each block is computed as the average score of financially savvy behaviours. FB1 is related to keeping track of money flows, FB2 to saving and long-term planning, and FB3 to making considered purchases. Table A2 details the context of each question, whereby financially savvy behaviour takes a score of one if the participant "completely agrees" or "agrees" with the statement, and zero otherwise. Estimation method is OLS regression with robust standard errors. The lower part of the table reports the number of observations and Adjusted R-squared. The \*\*\*, \*\*, and \* marks denote statistical significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
FB1	0.078**			0.094***		
	(0.031)			(0.034)		
FB2		0.036***			0.075***	
		(0.012)			(0.014)	
FB3			0.082***			0.081***
			(0.017)			(0.019)
FK	0.020	0.013	0.013	0.021	0.006	0.013
	(0.029)	(0.029)	(0.028)	(0.037)	(0.037)	(0.037)
GENDER	0.022	0.029	0.026	0.112***	0.124***	0.117***
	(0.025)	(0.025)	(0.025)	(0.029)	(0.029)	(0.029)
AGE	0.039***	0.048***	0.036***	0.046***	0.062***	0.045***
	(0.011)	(0.011)	(0.010)	(0.013)	(0.012)	(0.012)
HIGH INCOME	0.062**	0.046	0.060*	-0.024	-0.052	-0.027
	(0.031)	(0.031)	(0.031)	(0.043)	(0.043)	(0.043)
UNIVERSITY	0.088***	0.081***	0.087***	0.081**	0.068**	0.079**
	(0.029)	(0.029)	(0.029)	(0.033)	(0.032)	(0.032)
MATH SKILLS	0.034***	0.030***	0.031***	0.033**	0.025*	0.030**
	(0.011)	(0.011)	(0.011)	(0.013)	(0.013)	(0.013)
NUMERICAL	-0.005	-0.001	-0.012	-0.056**	-0.053*	-0.062**
INFORMATION						
	(0.025)	(0.025)	(0.024)	(0.029)	(0.028)	(0.029)
ONLINE	0.068*	0.067*	0.027	0.142***	0.122***	0.106**
BANKING						

	(0.041)	(0.041)	(0.041)	(0.042)	(0.041)	(0.044)
FINANCIAL	0.037	0.035	0.039	0.048	0.036	0.051
NEWS						
	(0.029)	(0.028)	(0.028)	(0.032)	(0.031)	(0.032)
RELEVANT	0.029	0.022	0.017	0.060*	0.046	0.048
DEGREE						
	(0.027)	(0.027)	(0.027)	(0.033)	(0.033)	(0.033)
Constant	0.309***	0.311***	0.269***	-0.033	-0.044	-0.070
	(0.065)	(0.064)	(0.065)	(0.066)	(0.066)	(0.065)
Observations	1,200	1,200	1,200	1,200	1,200	1,200
Robust SE	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	0.0590	0.0602	0.0731	0.0622	0.0782	0.0702

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