UNIVERSITÀ DEGLI STUDI DI BERGAMO
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WORKING PAPERS

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January 2025 - WP N. 30 Year 2025

Working papers – Department of Economics
n. 30

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Università degli Studi di Bergamo
2025

Women's Empowerment through Financial Literacy in a Developed Country / Piera Bello, Annalisa Cristini, Elena Manzoni, Federica Origo, Marcello Puca, Caterina Sturaro
Bergamo: Università degli Studi di Bergamo, 2025.
Working papers of Department of Economics, n. 230
ISSN: 2974-5586
DOI: 10.13122/WPEconomics_30

Progetto grafico: Servizi Editoriali – Università degli Studi di Bergamo
Università degli Studi di Bergamo
via Salvecchio, 19
24129 Bergamo
Cod. Fiscale 80004350163
P. IVA 01612800167

https://aisberg.unibg.it/handle/10446/292165

Women's Empowerment through Financial Literacy in a Developed Country*

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January 7, 2025

Abstract

This paper presents the results of a financial literacy intervention conducted in collaboration with two Italian NGOs supporting women in distress, particularly those facing unemployment, economic dependency or domestic abuse. The program consisted of an interactive lecture focused on essential financial concepts, particularly budgeting and savings. Using a phase-in Randomized Controlled Trial (RCT) design, we assess the impact of this intervention on participants' financial knowledge and confidence. The findings reveal substantial improvements in participants' understanding of basic financial principles and their financial confidence, highlighting strong responsiveness to the program. Furthermore, we identify significant heterogeneity in these outcomes based on women's socio-demographic characteristics and levels of financial fragility.

JEL Codes: G53; A20; I20; D14
Keywords: Financial education; Impact evaluation, RCT

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1 Introduction

Financial literacy has become a crucial determinant for economic well-being and social inclusion. Large evidence shows how financial literacy is associated with better saving and debt behaviour. Those with higher financial literacy accumulate larger wealth (Lusardi & Mitchell 2014), receive higher returns on investments (Lusardi et al. 2017), and diversify their portfolio more efficiently (Jappelli & Padula 2015). Moreover, financially literate individuals are more able to cope with emergency expenses, as it was the case during the COVID pandemic (Clark et al. 2021).

Yet, the overall level of financial literacy around the world remains low, with persistent socioeconomic inequalities (Lusardi 2019). Larger differences are found between women and men and across education groups. This translates into the financial exclusion of a large part of the population and, in turn, creates wide income inequalities. To reduce these inequalities, it is important to plan and realize urgent education initiatives that reverse these trends by enhancing financial literacy, particularly, among the most vulnerable groups in order to foster a more inclusive society.

This study proposes one financial education initiative, focused on the financial literacy needs of vulnerable women supported by two Italian NGOs, and evaluates the effectiveness of a targeted intervention, by means of a field experiment. One NGO is a multi-site organization operating in different Italian cities (and with few branches abroad), whose aim is to support socially marginalized groups, particularly women and children. The second NGO is mostly operating in the province of Bergamo, and, among other activities, it provides similar support to women and their children. The study assesses the participants' financial literacy levels, identifies their specific educational needs, and evaluates the impact of a pilot program aimed at improving their financial knowledge. The intervention consists of an interactive lecture covering fundamental financial topics, specifically tailored for a small group of women. It focuses on areas where participants are likely to exert control, such as budgeting and savings. We implemented the intervention using a phase-in Randomized Control Trial (RTC) to assess its effectiveness.

The results reveal that the financial literacy intervention significantly improved participants' financial knowledge, as measured both by our aggregate score of *Financial Literacy* and its individual components. Women in the treatment group outperformed those in the control group, particularly in understanding concepts related to interest rates, financial investments, and behavioral traps. Treated participants were also more likely to answer survey questions and less likely to opt for "I don't know" responses, suggesting increased confidence. Heterogeneity analyses indicate that the intervention was effective especially for older women, native Italian speakers, and participants at northern centers, highlighting the importance of language and context in delivering financial education. While the intervention's effectiveness varied across subgroups, it demonstrated a generally positive impact

on participants from diverse socioeconomic backgrounds.

Our paper contributes to the growing literature on financial literacy interventions by measuring the impact of a small-scale course on basic financial concepts targeted at socially disadvantaged women in a developed country. To our knowledge, this is the first study to focus on this specific population within a randomized treatment setting. Promoting financial education among women is crucial, as they are one of the most vulnerable groups, alongside the young and the elderly (Lusardi & Mitchell 2014, Bottazzi & Lusardi 2021). Women perform worse than men on financial literacy tests in both advanced economies (e.g., Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States) and emerging economies (Bucher-Koenen et al. 2021, Hasler & Lusardi 2017, Cupák et al. 2018, Lusardi & Mitchell 2008, Hung et al. 2012). This gender gap persists regardless of socioeconomic background, cultural context, or institutional setting (Bucher-Koenen et al. 2021) and is observed across all age groups. Women also display less confidence in their level of financial literacy. Studies suggest that this gap is driven by the tendency of couples to delegate financial decisions to men more often than to women (Fonseca et al. 2012, Hsu 2016), a pattern shaped by cultural norms and gender role expectations (Giuliano 2017).

While financial literacy programs have gained attention, empirical evidence on their causal effects is still limited. Recent reviews, such as Kaiser et al. (2022), document positive and economically meaningful effects of financial literacy programs on knowledge and behavior, comparable in size to gains seen in education domains like reading or math. Much of this research, however, has focused on students. For example, Sutter et al. (2023) studied high school students in Germany and found that financial literacy training improved risk aversion and intertemporal choices. Similarly, Sconti et al. (2024) conducted an RCT on middle-school students in southern Italy, showing that enhancing financial literacy significantly improved decision-making quality and consistency in intertemporal choices. At the university level, Brugiavini et al. (2020) evaluated a small online course for Italian college students and demonstrated significant gains in financial knowledge, particularly in understanding interest compounding, inflation, and risk diversification, as well as improved self-assessed financial literacy.

Beyond students, few studies have examined the impact of financial literacy programs on other socio-demographic groups. Early work by Bernheim & Garrett (2003) showed that employer-based financial education is associated with higher savings. More recently, Billari et al. (2023) evaluated the Finlife program, a low-cost online financial literacy course for pension fund participants in Italy, and found persistent improvements in financial and demographic literacy, as well as a stronger interest in pension planning. For the elderly, Bucciol et al. (2021) studied the effects of a two-hour personal finance lecture in northern Italy, showing increased confidence among participants, though knowledge gains were limited.

Despite the growing literature, there is comparatively less evidence on the impact of financial literacy programs for disadvantaged women, particularly in developed countries. This is surprising given that this group is often at greater risk of financial exclusion due to limited financial knowledge. Attanasio et al. (2019) studied a customized financial education course for female recipients of a conditional cash transfer program in Colombia. This intervention, tailored to participants' needs and delivered via tablets, significantly improved financial knowledge and attitudes, with stronger effects observed for poorer and less-educated participants. Similarly, Koomson et al. (2021) analyzed a joint financial literacy and women's empowerment program in Ghana, finding that combining financial training with empowerment modules resulted in higher household consumption among female participants. Finally, Hetling et al. (2016) conducted an RCT targeting survivors of domestic violence in the U.S. and Puerto Rico, showing that financial literacy training improved both perceived financial knowledge and financial behaviors. This highlights the importance of tailoring programs to the unique challenges faced by vulnerable women, such as economic abuse.

Our study builds on this literature by addressing the financial literacy deficits of vulnerable women in a developed country context. We provide new data on this population, often overlooked in national surveys, and identify their specific educational needs, which informed the design of our intervention. Second, we measure the effectiveness of a basic and short financial literacy course, demonstrating the high responsiveness of this group to such programs. This type of intervention could also be particularly valuable for undocumented migrants who seek assistance at support centers or struggle to find employment, as improving their financial knowledge can help them navigate economic challenges and integrate more effectively into society.

The paper is structured as follows: Section 2 outlines the background of the intervention and how it has been implemented. Section 3 outlines the empirical strategy and reports the intervention's results. Section 4 concludes.

2 The experiment

2.1 Background and implementation

The experiment was conducted at the support centers of two Italian NGOs that promotes women's rights, particularly among those facing social marginalization and high vulnerability to physical, sexual, economic, or psychological violence. The intervention was rolled out in three rounds in the NGO's centers located in eight Italian municipalities spread all over the country (Bergamo, Bologna, Brescia and Milan in the North, Pescara and Rome in the Center and Cosenza and Naples in the South). The first round occurred in March-April 2023, the second in December 2023-January 2024, and the third in October 2024.

Specifically, the first NGO is active in 25 countries, and, more importantly for this research, has centers for disadvantaged women in 7 Italian cities (Bologna, Brescia, Milan, Pescara, Rome, Cosenza and Naples).[1] Women visit these centers voluntarily, seeking advice, comfort, and support for various reasons, such as escaping domestic violence, recovering from economic hardship, or rebuilding their lives after displacement. Attendance is not mandated by any public institution providing social assistance, nor does it provide direct monetary benefits. The centers serve a diverse population of women with varying educational backgrounds and life experiences, reflecting the socio-economic diversity in the country.

The second NGO is mostly active in Bergamo and it offers a variety of services in support of disadvantaged individuals. For what concerns women, it offers two buildings for co-housing, and it runs an Italian language school.[2] In this case, the intervention was held in one of the co-housing building, with participants of all the three types of services.

2.2 Sample and recruitment

We ran 17 sessions for a total of 221 participants, that is women aged at least 18 who accessed the NGO's centers. Table A.1 in the Appendix reports the number of participants by round and location, with each session defined by a unique combination of these factors. Although participants were allowed to attend the course multiple times across different rounds of the intervention, only seven did so. Data from second attendances were excluded from the sample, leaving us with 221 unique observations.[3] Participants were recruited through official channels, including the distribution of information leaflets at all the NGO's centers, online advertisements posted on the centers' official websites and Instagram accounts, and direct outreach via phone calls, emails, and text messages by the staff of the NGOs. Participation was compensated with a voucher for a large supermarket, although correct answers were not rewarded with additional compensation.[4]

2.3 The intervention

Upon arrival at the NGO's center, participants were welcomed by the staff and researchers from the University of Bergamo, who led the intervention. The researchers

[1]The first NGO holds one center in each municipality, except for Milan, where there are two centers, "Corvetto" and "Giambellino," named after the neighborhoods where they are located.

[2]This second NGO was included only in the third round of experiments to increase power, due to a lack of new participants in the centers of the first NGO.

[3]Women who participated twice have been included in the treatment group to prevent possible spillover effects that may originate from audience questions during the course.

[4]The chosen supermarket had locations near each of the centers. Participants in the first round of the field experiment received a €10 coupon, while participants in the second and third round received a €20 coupon. As participants were not informed in advance about the amount they would receive, participation rates did not change across rounds.

introduced themselves, provided an overview of the financial literacy program, and informed participants about their involvement in a research project. Participants then signed consent forms to participate in the study. A (phase-in) randomized controlled trial has been implemented to evaluate the effectiveness of the intervention on the level of financial literacy. Participants were randomly assigned to the treatment or the control group by drawing a card from a pre-shuffled deck. Those who drew an even-numbered card were placed in the treatment group, while the others were assigned to the control group. Participants in the treatment group attended the training session first and then completed the questionnaire, while the control group completed the questionnaire first, followed by the training.[5] At the start of the financial literacy lesson, all participants received a booklet summarizing the course topics.[6]

The financial education intervention consisted of an interactive lecture on basic financial concepts, focusing primarily on areas of household finances under participants' control, such as budgeting and savings. The lecture was based on Bank of Italy financial education booklets, freely available online. The session began by teaching participants how to create a family budget plan, categorizing revenues and expenses as fixed or variable. Tips on setting realistic savings goals were provided, alongside a demonstration of a free mobile app for budget management.

The lecture covered strategies for managing unexpected events, with an emphasis on precautionary savings. Practical examples of savings and lending instruments were provided, followed by a brief explanation of inflation, interest rates, and various investment options. Participants were introduced to the concept of risk and return to assess their financial profiles. Finally, the session addressed common behavioral traps in financial decision-making, including mental accounting, framing effects, procrastination, and mental shortcuts.[7] Participants were advised about the risks of irrational and naive reasoning when making financial decisions. The course content was developed using information collected from two focus groups held at the NGO's centers several months prior to the intervention, aimed to investigate the financial needs of the target women to design the most effective program.

Both the training and the questionnaire were in Italian. While all participants had at least some knowledge of the Italian language, foreign women received assistance from language mediators if they had difficulty understanding parts of the lecture or questionnaire. Mediators were strictly instructed not to assist with answering the questions but only to provide translation support when needed.

The questionnaire consisted of 44 questions designed to measure participants' levels of financial confidence, financial behavior, knowledge of budgeting and sav-

[5] A photograph illustrating one of the lectures delivered during the intervention is provided in Figure A.2 in Appendix A, showcasing the interactive nature of the session and the participants' involvement.

[6] Despite the different timeline, all participants ultimately received the same educational content. This design ensures a causal interpretation of the intervention while maintaining fairness in education.

[7] These behavioral topics were added to the intervention from round 2 of the experiment onward.

ings, and behavioral biases.[8] The questionnaire also included questions on participants' socioeconomic status (household composition, educational background, and employment status) and their basic math skills, assessed through three questions.

3 Methodology and Results

3.1 Empirical strategy

To measure the effect of the intervention on financial literacy, we estimate the following model:

$$Y_{ijk} = \beta_0 + \beta_1 Treatment_i + Z_i + \phi_j + \lambda_k + \epsilon_{ijk} \quad (1)$$

where Y is the outcome of interest for individual i ($i = 1, ..., 221$), surveyed at location j ($j =, 1, ..., 9$), during round k ($k = 1, ..., 3$), $Treatment$ is a dummy for individuals included in the treatment group, while Z is a vector of participant's socio-demographic characteristics, such whether she is born in Italy (Birth Italy), her age (Age), marital status (Married), number of children (Children), education level (Secondary Education), and employment status (Employed). ϕ_j and λ_k capture location and session fixed effects, respectively. In all regressions, standard errors were clustered at the location level.

Outcome variables In the analysis we consider three (sets of) outcome variables, those referring to (i) financial literacy, (ii) confidence in own financial knowledge/skills, (iii) understanding of behavioral traps.

Regarding (i), we focus on the questionnaire responses to five items. The first two—Q25 (*Numeracy*) and Q26 (*Inflation 1*)—correspond to two of the so-called "Big Three" questions (Lusardi & Mitchell 2008), regarding compound interest and inflation. In addition, we also consider an alternative measure of knowledge of inflation—Q27 (*Inflation 2*)—, a question on financial investments—Q28 (*Financial Investment*)—, and one on budget composition—Q21 (*Budget Composition*).[9] Responses to each of these questions was dichotomized, with value 1 for a correct answer and 0 for incorrect, missing, or "I don't know" answers. Based on the responses to these items, we constructed the Financial Literacy Score (*Financial Literacy*), which is our primary outcome variable and provides a measure of participants' overall financial literacy level. The score ranges from 0 to 5 and represents the number of correct answers provided by each participant to the above-mentioned questions. Additionally, we analyze each item individually.

Our second outcome variable is *Confidence*, a binary indicator that measures

[8] Questions on behavioral biases (Q31-32) were asked only to participants of sessions in rounds 2 and 3 of the experiment. The English translation of the questionnaire is available in Appendix B.

[9] The questions are reported in Appendix B.

whether the participant provides an answer to the same five questions (Q25-28 and Q21), regardless of the accuracy of the response. Specifically, we first attribute value 1 to the item if an answer is provided, and 0 if no answer is given (i.e., missing answers or "I don't know" responses). Individual scores for this measure are calculated by summing the points obtained by each participant across all the five questions.

The last outcome variable, *Framing*, examines how women interpret information and respond to it based on how the problem is presented. This variable takes value 1 if the participant provides the correct answer to Q31, which focuses on the effects of framing, and 0 otherwise.[10]

3.2 Descriptive statistics

Descriptive statistics for the main variables are presented in Table 1. Table A.2 in Appendix A reports the definitions of the variables, and the number of the question they refer to. Further statistics are provided in Table A.3, which can also be found in Appendix A.

Panel A of Table 1 reports the descriptive statistics of the control variables used in the regression. The sample is balanced on most characteristics. Out of the 221 participants, 49% (108) are treated. Regarding the place of birth, 48% were born in Italy, while the remaining individuals come from a variety of countries, including, for example, Afghanistan, Albania, Egypt, Georgia, Kenya, Peru, Senegal, Ukraine, and Venezuela. About 32% of the participants were employed at the time of the intervention, and 70% completed high school. The average age of the participants is 44, with age ranging from 18 to 82 years old. 81% of the participants have children. Although participation in our study is voluntary, the sample does not significantly differ from the population of beneficiaries of the NGOs services. For example, as of 2022, the population of the biggest NGO was approximately composed by 33% foreigners, 54% parents, 43% unemployed individuals, and 66% with a high school diploma or higher qualification. Compared to the standard population, our sample includes a larger share of immigrant women, a higher share of mothers, and a higher share of unemployed, possibly reflecting a higher need of financial education for these groups.

Column (5) reports the p-values of Wilcoxon signed-rank tests, confirming that there are no statistically significant differences in the observable characteristics between the treated and the control group, except for the proportions of participants who are married (p-value=0.01) and those who are born in Italy (p-value=0.09). Specifically, there are more married women in the control group and more Italians in the treatment group. Given the random allocation of women in the treatment and control groups, these imbalances must arise from the small sample size and the

[10]This question was asked only in rounds 2 and 3 of the experiment, therefore the number of observations is lower.

inherent randomness of the allocation process, which may result in small differences in some characteristics by chance. As the higher proportion of Italians in the treatment group and married women in the control group could potentially introduce bias, we control for these variables in our regression models.

Table 1: Descriptive Statistics

	Control (1)	N (2)	Treatment (3)	N (4)	WSRT (5)
Panel A: Control variables					
Birth Italy	0.426	108	0.543	105	0.088
Age	44.660	109	43.667	102	0.600
Married	0.495	113	0.333	108	0.015
Children	0.821	106	0.798	104	0.676
Secondary Education	0.664	113	0.75	108	0.160
Employed	0.336	113	0.296	108	0.524
Panel B: Balancing variables					
Need to improve financial knowledge	0.876	113	0.599	108	0.601
Math skills	1.088	113	1.194	108	0.214
In charge of finances: only me	0.318	113	0.343	108	0.705
In charge of finances: me and partner	0.301	113	0.287	108	0.822
Able to manage finances	0.619	113	0.593	108	0.683
Family sets the budget	0.540	113	0.546	108	0.923
In charge of budget: only me	0.302	86	0.360	89	0.424
In charge of budget: me and partner	0.430	86	0.292	89	0.058
Budget statement	0.850	113	0.889	108	0.388
Microcredit (use)	0.018	113	0.055	108	0.133
Mortgage (use)	0.150	113	0.204	108	0.300
Personal loan (use)	0.159	113	0.287	108	0.023
Debit card (use)	0.256	113	0.333	108	0.212
Credit card (use)	0.513	113	0.518	108	0.938
Bank account (use)	0.611	113	0.685	108	0.247
Saving account (use)	0.380	113	0.426	108	0.494
Has bank account	0.699	113	0.731	108	0.595
Risk attitude	6.961	77	6.412	85	0.245
Risk dummy	1.508	57	1.730	63	0.020

Note. This table presents summary statistics for the treatment and the control group. Column (5) displays the p-value from a Wilcoxon signed-rank test of equal means of the treatment and control groups.

Panel B of Table 1 reports the descriptive statistics of those variables that are informative on habits and knowledge of participants. 73% of the women believe they need to improve their financial knowledge. Only 33% are solely responsible for managing finances in the household, while 29% indicate that they jointly manage household finances with their partners. Considering the subgroup of women who are not in charge of household finances, 61% of them believe that they would know how to manage it. Regarding math skills, women demonstrated basic competence,

scoring on average 1.1 on a score ranging from 0 to 3. For what concerns the use of financial instruments, while it is common for women in the sample to have experience with bank accounts and credit cards, they are less likely to be familiar with micro-credit, mortgages, and personal loans. The participants' characteristics are mostly balanced. The Wilcoxon test only indicates a few statistically significant differences between the treatment and the control groups; specifically, women in the treatment group are more likely to use personal loans and less likely to be in charge of the budget together with the partner; they also tend to be slightly more risk averse, according to one of the two measures of risk we use.

In Table 2, Panel A, we report summary statistics for the outcome variable *Financial Literacy* and its components for the whole sample and by treatment status. Column (8) reports the results of a Wilcoxon signed-rank test of equal means of the treatment and control groups on *Financial Literacy* and its components. We observe that the difference in mean score between treated and controls is statistically significant for all outcomes. Average *Financial Literacy* is equal to 2.815 among the treated, while it is equal to 1.832 among the controls, and this difference is strongly significant in statistical terms (p-value= 0.000). This provides preliminary evidence of the effectiveness of the intervention.

In Figure A.1 in the Appendix, we also show the distribution of the *Financial Literacy* among treated and control units. The graph clearly shows that women in the treatment group outperform women in the control group and this difference is statistically significant, as confirmed by the Kolmogorov-Smirnov test on the equality of distribution (p-value=0.000). Specifically, 15.7% of women in the treatment group answered all the questions correctly (i.e., 17 out of 108 treated), compared to 6.2% in the control group (i.e., 7 out of 113 controls). This share increases if we consider participants who answered correctly to at least 4 out of 5 questions in our survey: roughly 27% in the treatment group compared to only about 8% in the control group.

Table 2, Panel B, reports summary statistics for the outcome variable *Confidence*, by treatment group. *Confidence* ranges from 0 to 5, with a mean value of 3.439 in the whole sample. We find evidence that this score is higher in the treatment group (3.833) than in the control group (3.062), and that this difference is statistically significant (p-value=0.000).

Finally, Table 2, Panel C, shows summary statistics for the outcome variable labeled *Framing*. Once again, we find a statistically significant difference between treated and control women, in favor of treated participants. This first inspection suggests that the financial literacy course had a positive impact on women's knowledge.

Table 2: Outcome variables - summary statistics

	All participants			Experiment				
	Mean	SD	N	Control	N	Treatment	N	WSRT
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: *Financial Literacy* and its components								
Financial Literacy	2.312	1.560	221	1.832	113	2.815	108	0.000
Numeracy	0.588	0.493	221	0.487	113	0.694	108	0.002
Inflation 1	0.416	0.494	221	0.310	113	0.528	108	0.001
Inflation 2	0.371	0.484	221	0.274	113	0.472	108	0.002
Financial investment	0.475	0.500	221	0.354	113	0.602	108	0.000
Budget Composition	0.461	0.499	221	0.407	113	0.518	108	0.097
Panel B: *Confidence*								
Confidence	3.439	1.447	221	3.062	113	3.833	108	0.000
Panel C: *Framing*								
Framing	0.503	0.502	157	0.410	83	0.608	74	0.020

Note. This table presents summary statistics on the outcome variables, on the whole sample and for the treatment and control group. Column (8) displays the p-value from a Wilcoxon signed-rank test of equal means of the treatment and control groups.

3.3 Results

We now present the regression results for the three (sets of) outcome variables described in Section 3.

Financial Literacy Our main variable of interest is *Financial Literacy*, i.e., the aggregate financial literacy score. Column (1) and (2) of Table 3, report results of the regression of *Financial Literacy* on the treatment and other controls. The intervention has a positive and significant effect on *Financial Literacy*: women in the treatment group score almost 1 point higher in the *Financial Literacy* compared to participants in the control group, all other things being equal. If we consider that the average value of the *Financial Literacy* in the whole sample is 1.832 (see Table 2), the intervention is associated with a substantial 49% increase in *Financial Literacy*, relative to the control group average. More specifically, we observe higher scores of financial literacy for women who are born in Italy, are employed and have higher education. This finding confirms that women facing greater disadvantages (not in employment, with low education, and possibly with language barriers) are the ones most in need of interventions to improve their financial literacy.

We further explore the effect of the treatment by looking at each of the five components of our financial literacy score individually (see Table 4). The effect of the intervention on *Financial Literacy* is driven by three of its components—Numeracy, Inflation 2 and Financial Investment—, which also display positive and significant treatment effects. These results suggest that the the positive impact of

the intervention is mainly driven by the improved understanding of the interest rate notion and the relation between risk and returns. Furthermore, we note that the individual characteristics that have an impact on *Financial Literacy* do not have the same effect on all its components. In particular, employed women have significantly higher numeracy (but do not perform better in any of the other items), women with high education perform better in the financial investment and in the budget composition items, and those who are born in Italy perform better in the budget composition item. This last finding might suggest a possible language effect, as the question on budget composition is one of the few open questions.

Confidence Results of the regression of *Confidence* on the treatment and other controls are reported in Table 3, Column 3. As previously explained, the aim of this analysis is to measure the effect of the financial literacy class on women's confidence in answering the questions. The coefficient for treatment is positive and statistically, meaning that the intervention does indeed make women more confident in their financial knowledge. Treated women score about 0.7 points higher on *Confidence*, compared to control women, all other things being equal. If we consider the impact in relative terms, the treatment increases *Confidence* by 22.7% compared to the control group average. The result appears to be driven by women's greater confidence in answering questions Inflation 2, Inflation 3 and Financial Investment (see Table A.4 in the Appendix). We also find that married women are more confident in their financial knowledge, which is in line with the findings of Bucher-Koenen et al. (2017) for the US and the Netherlands (but not for Germany). However, differently from their findings, in our sample higher confidence of married women is not paired with higher levels of financial literacy.

Framing Column (4) of Table 3 reports the results of the regression analysis when the outcome variable is *Framing*. We find a large and significant effect of the treatment on the ability of women to identify the framing effect presented in Q31. Specifically, the treatment increases the share of correct answers by 41.7% compared to the control group average. Interestingly, participants' performance on the *Framing* question is not influenced by any of the socio-demographic characteristics that affect the financial literacy score or confidence. In particular, factors such as being born in Italy, being married, having a high level of education, or being employed show no significant effect. This result, alongside evidence from the literature indicating that framing effects are particularly pronounced for women and that financial literacy alone may not mitigate them (Moreira Costa et al. 2021), highlights the importance of incorporating topics on behavioral traps into financial literacy programs. Such interventions could benefit a broad range of individuals, not just vulnerable women.

Table 3: Linear Regression of main outcome variables

	Financial Literacy	*Financial Literacy*	*Confidence*	*Framing*
Treatment	0.964***	0.901***	0.697**	0.171*
	(0.201)	(0.245)	(0.233)	(0.077)
Age		0.022*	0.015*	-0.001
		(0.010)	(0.007)	(0.002)
Married		0.076	0.307**	0.022
		(0.190)	(0.124)	(0.098)
Children		0.092	-0.093	-0.028
		(0.298)	(0.284)	(0.165)
Birth Italy		0.592	0.541*	0.043
		(0.321)	(0.244)	(0.140)
Secondary Education		0.602*	0.834**	0.103
		(0.280)	(0.295)	(0.108)
Employed		0.357*	0.096	0.023
		(0.163)	(0.146)	(0.094)
Location FE	Y	Y	Y	Y
Session FE	Y	Y	Y	Y
Observations	221	205	205	143

Notes. The table presents the results of OLS regressions of the outcome variables of interest. Standard errors, clustered at the location level, are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 4: Linear Regression of single outcome variables

	Numeracy	Inflation 1	Inflation 2	Fin. Inv.	Budget Comp.
Treatment	0.213**	0.198	0.215**	0.233**	0.041
	(0.080)	(0.110)	(0.073)	(0.091)	(0.034)
Age	0.010***	0.004	0.005*	0.004	-0.002
	(0.003)	(0.003)	(0.002)	(0.004)	(0.004)
Married	-0.031	0.074	0.087	-0.016	-0.036
	(0.101)	(0.080)	(0.071)	(0.060)	(0.064)
Children	-0.001	0.030	-0.056	-0.040	0.158*
	(0.073)	(0.125)	(0.126)	(0.106)	(0.070)
Birth Italy	-0.102	0.208	0.139	0.032	0.321***
	(0.076)	(0.128)	(0.098)	(0.074)	(0.047)
Secondary	-0.090	0.179*	0.095	0.179**	0.242**
	(0.076)	(0.088)	(0.078)	(0.060)	(0.104)
Employed	0.142**	0.036	0.079	0.033	0.064
	(0.050)	(0.096)	(0.088)	(0.042)	(0.048)
Location FE	Y	Y	Y	Y	Y
Session FE	Y	Y	Y	Y	Y
Observations	205	205	205	205	205

Notes. The table presents the results of OLS regressions using the seven questions measuring women's financial literacy as the outcome variables, with the treatment variable as the key independent variable. The models include fixed effects for location and session, as well as a set of socio-demographic control variables. Standard errors, clustered at the location level, are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

3.4 Heterogeneity analysis

In this section, we examine whether the effectiveness of the intervention varies based on pre-existing socio-demographic characteristics or financial fragility of participants. The socio-demographic attributes considered include age, nationality, marital status, presence of children in the household, education, and employment. For financial vulnerability, we consider variables such as who is in charge of household finances, who sets the budget, and whether the participant has a personal bank account. The results of this heterogeneity analysis are reported in Table A.5.

Socio-demographic characteristics Starting with age, women are divided in two groups, based on population median age (which is 43). *Financial Literacy* is regressed on the treatment, fixed effects for location and session and the usual set of control variables for both groups. The treatment is statistically significant with positive sign in both regressions, though the magnitude of the effect is larger in the sample of older women (β= 0.713, p-value=0.05 younger women; β= 1.342, p-value=0.001 older women).

When we consider the other socio-demographic characteristics, we find that the intervention is effective in increasing participants' financial literacy among women born in Italy. This result suggests that women born in Italy and native Italian speakers are more able to get the most out of the lesson, that is provided in Italian, compared to foreign women. This finding suggests that the language in which the lesson is taught is as important as content clarity to ensure effectiveness of the intervention. Although straightforward, this detail should be taken into consideration when designing such interventions. New technologies and digital devices may represent a valuable support in this sense, as they allow for just-in-time translation and a more interactive approach to teaching. This, in turn, permits to better convey knowledge to participants with different cultural backgrounds.

Interestingly, when considering education, employment, marital status and presence of children in the household, the effect of the treatment is positive and statistically significant for all groups considered, with no large differences between groups. Thus, we believe that this type of intervention is generally effective in increasing financial literacy of vulnerable women regardless of their socioeconomic characteristics, especially when considering education and the role within the family.

Although treatment is statistically significant in several regressions, the test on the coefficients shows that the effect of treatment is statistically different between sub-samples only in the regressions by country of birth and education.

Measures of financial vulnerability Then, we consider the intervention impact on the *Financial Literacy* across three dimensions of financial vulnerability. First, we contrast participants who are involved in managing household finances, versus participants who are excluded from this responsibility using the answer to the

question regarding who is in charge of household finances (*In charge of household finances*). Second, we compare women who are involved in setting household budget, versus women excluded from this task (*In charge of household budget*). Third, we compare women who have a personal bank account, versus women who do not (*Has bank account*). Panel C of Table A.5 reports the heterogeneity analysis with respect to these three dimensions. Results suggest that the treatment is effective in increasing women's *Financial Literacy* among those who are already involved in the family's financial decisions at the moment of the survey; moreover, the treatment is effective in enhancing women's knowledge, regardless of whether they own a saving account or not.

These findings suggest that women who are already more familiar with making basic financial decisions are more able to get the most out of the financial literacy class, compared to their peers who are totally excluded from it. Unfortunately, the design of our experiment does not allow to evaluate whether the provision of basic financial literacy can effectively change women's financial empowerment within the households. However, these findings seem to suggest that interventions aimed to improve basic financial literacy, when implemented alone, may not be sufficient to increase financial awareness and bargaining power of vulnerable women within the household, especially in cultural and migratory contexts where their choices and behaviors may be constrained by rooted social norms and gender stereotypes.

4 Conclusions

In this paper, we implemented a Randomized Controlled Trial (RCT) in collaboration with two NGOs operating in Italy to evaluate the impact of a pilot financial literacy intervention targeting women in vulnerable conditions. Focusing on this group is crucial for two key reasons. First, women in these circumstances often exhibit lower levels of financial literacy, which can exacerbate social isolation. Second, as they are frequently neither employed nor engaged in education, they are less likely to access financial literacy training through traditional channels, such as schools or workplaces. Our findings reveal that the target group responds positively to the program. The intervention leads to about 49% increase in overall financial knowledge and a 22% improvement in confidence levels.

A second important contribution of our study is to shed light on the financial literacy levels of these women, who are often underrepresented in national surveys. Although we do not provide a direct comparison with national or international benchmarks, we collect detailed information on their previous knowledge, use of financial instruments, and budgeting habits, offering valuable insights into their financial behaviors and needs.

While our study does not provide evidence on long-term outcomes, our data help understand the baseline levels of financial literacy among socially disadvan-

taged women. This knowledge is essential to design and implement effective policies tailored to the specific needs of a segment of the population which is important and vulnerable, and to develop financial education programs at the national level, with a specific focus on this target group, who appear to benefit the most from such interventions.

Finally, we show that participants in the treated group have a reduced sensitivity to framing effects, indicating a stronger ability to navigate behavioral traps in financial decision-making. This is particularly important, given that it has been shown that an increase in financial literacy may expose individuals (particularly women) to higher sensitivity to framing effects (Moreira Costa et al. 2021). Thus, our field experiment suggests that the trade-off between financial literacy and sensitivity to framing may be dismantled by appropriate interventions, and least for vulnerable women. Whether this finding can be extended to other target groups is an interesting question that we will explore in future research.

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Appendix A: Figures and tables

A.1 Figures

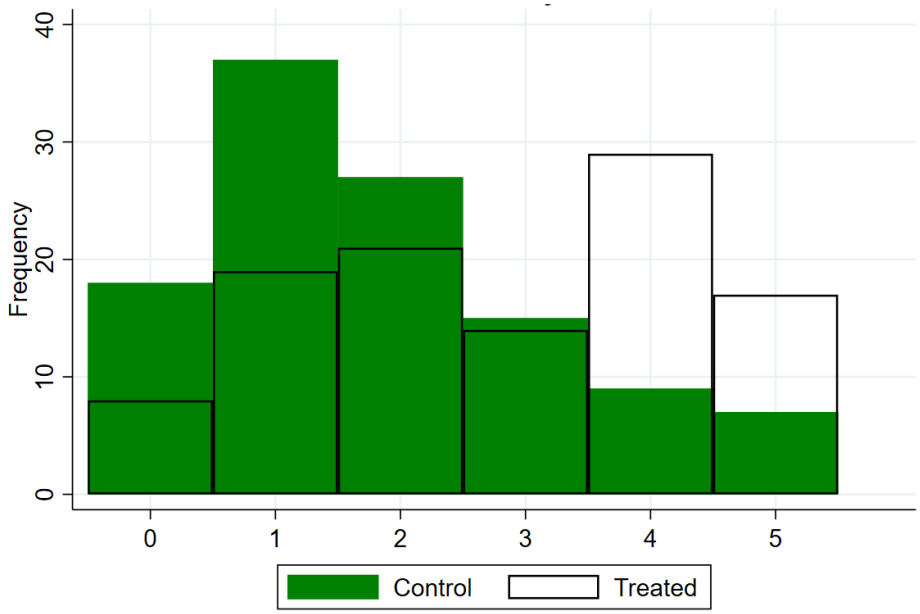

Figure A.1: Distribution of *Financial Literacy* by treatment status

Figure A.2: A lecture delivered during one of the intervention sessions.

A.2 Tables

Table A.1: Participants by round and location

Round	BG	BO	BS	CS	MI C	Mi G	NA	PS	RO	Total
1	0	9	7	11	10	0	15	7	5	**64**
2	0	16	15	14	15	0	16	18	18	**112**
3	25	0	0	0	11	9	0	0	0	**45**
Total	25	25	22	25	36	9	31	25	23	**221**

Notes. The table reports the number of participants by round and location (Bergamo, Bologna, Brescia, Cosenza, Milano Corvetto, Milano Giambellino, Napoli, Pescara, Roma).

Table A.2: Variables name and definition

Variable name	**Definition**
Financial Literacy	Q25-28, and Q21, discrete: it ranges from 0 to 5; number of correct answers to Q25, Q26, Q27, Q28, Q21.
Confidence	(Q25-28, and Q21), discrete: it ranges from 0 to 5; number of given answers (regardless of their accuracy) to Q25, Q26, Q27, Q28, Q21.
Numeracy	Q25, dummy: 1 correct, 0 otherwise
Inflation 1	Q26, dummy: 1 correct, 0 otherwise
Inflation 2	Q27, dummy: 1 correct, 0 otherwise
Financial Investment	Q28, dummy: 1 correct, 0 otherwise
Budget composition	Q21, dummy: 1 both types of expense correct, 0 otherwise
Framing	Q31, dummy: 1 correct, 0 otherwise
Treatment	dummy 1 treated, 0 control
Location	categorical, locations of NGOs' centers across Italy
Round	categorical, number of the round of experiments (1, 2, 3)
Adequate financial knowledge	Q1, discrete, 3 levels: 1 no, 2 a bit, 3 yes
Need to improve financial knowledge	Q3, dummy: 1 if needs to improve knowledge, 0 otherwise
Bank app	Q9, dummy: 1 if has bank app on the phone, 0 otherwise
Bank app use	Q10, dummy: 1 yes, 0 otherwise
Math skills	Q12-14, discrete: ranges from 0 to 3; number of correct answers to Q12, Q13, Q14
In charge of finances: only me	Q15, dummy: 1 if answers only me, 0 otherwise
In charge of finances: me and partner	Q15, dummy: 1 if answers me and partner, 0 otherwise
Able to manage finances	Q16, dummy: 1 yes, 0 otherwise

Variables name and definition - continues

Variable name	**Definition**
Family sets the budget	Q17, dummy: 1 yes, 0 otherwise
In charge of budget: only me	Q18, dummy: 1 if answers only me, 0 otherwise
In charge of budget: me and partner	Q18, dummy: 1 if answers me and partner, 0 otherwise
Insufficient income	Q19, dummy: 1 not enough in the last 12 months, 0 otherwise
Budget statement	Q20, dummy: 1 correct answer, 0 otherwise
Microcredit (knowledge)	Q22.a, dummy: 1 yes, 0 otherwise
Mortgage (knowledge)	Q22.b, dummy: 1 yes, 0 otherwise
Personal loan (knowledge)	Q22.c, dummy: 1 yes, 0 otherwise
Debit card (knowledge)	Q22.d, dummy: 1 yes, 0 otherwise
Credit card (knowledge)	Q22.e, dummy: 1 yes, 0 otherwise
Bank account (knowledge)	Q22.f, dummy: 1 yes, 0 otherwise
Microcredit (use)	Q23.a, dummy: 1 yes, 0 otherwise
Mortgage (use)	Q23.b, dummy: 1 yes, 0 otherwise
Personal loan (use)	Q23.c, dummy: 1 yes, 0 otherwise
Debit card (use)	Q23.d, dummy: 1 yes, 0 otherwise
Credit card (use)	Q23.e, dummy: 1 yes, 0 otherwise
Bank account (use)	Q23.f, dummy: 1 yes, 0 otherwise
Has bank account	Q24, dummy: 1 yes, 0 otherwise
Risk attitude	Q29, discrete: from 0 to 10 (highest value of risk aversion)
Risk dummy	Q30, binary
Birth Italy	Q33, dummy: 1 yes, 0 otherwise
Children	Q35, dummy: 1 yes, 0 otherwise
Number of children	Q36, discrete
Number of adults	Q37, discrete
Married	Q38, dummy: 1 yes, 0 otherwise
Secondary Education	Q39, dummy: 1 high-school education or above, 0 otherwise
Age	Q40, discrete
Employed	Q41, dummy: 1 employed, 0 otherwise

Notes. The table reports the variables name and definition used in the analysis.

Table A.3: Summary statistics

	Mean	**SD**	**Min**	**Max**	**N**
Treatment	0.489	0.501	0	1	221
Round	1.914	0.699	1	3	221
Birth Italy	0.484	0.501	0	1	213
Age	44.180	12.720	18	82	211
Married	0.416	0.494	0	1	221
Children	0.810	0.394	0	1	210
Secondary Education	0.706	0.457	0	1	221
Employed	0.317	0.466	0	1	221
Adequate Financial knowledge	2.140	0.811	1	3	221
Need to improve financial knowledge	0.864	0.343	0	1	221
Bank app	0.719	0.450	0	1	203
Bank app use	0.655	0.476	0	1	203
Math skills	1.140	0.550	0	3	221
In charge of finances: only me	0.330	0.471	0	1	221
In charge of finances: me and partner	0.294	0.457	0	1	221
Able to manage finances	2.353	0.859	1	3	221
Family sets the budget	0.597	0.492	0	1	201
In charge of budget: only me	0.331	0.472	0	1	175
In charge of budget: my partner	0.177	0.383	0	1	175
Insufficient income	0.729	0.446	0	1	181
Budget statement	0.869	0.338	0	1	221
Microcredit (knowledge)	0.362	0.482	0	1	221
Mortgage (knowledge)	0.747	0.436	0	1	221
Personal loan (knowledge)	0.715	0.452	0	1	221
Debit card (knowledge)	0.548	0.499	0	1	221
Credit card (knowledge)	0.814	0.390	0	1	221
Bank account (knowledge)	0.805	0.397	0	1	221
Microcredit (use)	0.036	0.187	0	1	221
Mortgage (use)	0.176	0.382	0	1	221
Personal loan (use)	0.222	0.416	0	1	221
Debit card (use)	0.294	0.457	0	1	221
Credit card (use)	0.516	0.501	0	1	221
Bank account (use)	0.647	0.479	0	1	221
Has bank account	0.715	0.452	0	1	221
Risk attitude	6.673	2.887	0	10	162
Risk dummy	1.625	0.486	1	2	120
Number of children	1.132	1.033	0	4	167
Number of adults	1.241	1.088	0	5	195

Table A.4: Linear Regression of *Confidence*: Single Outcome Variables

	Numeracy	Inflation 1	Inflation 2	Fin. Inv.	Framing	Budget Comp.
Treatment	0.105*	0.209**	0.262**	0.099	0.043	0.021
	(0.048)	(0.070)	(0.104)	(0.090)	(0.032)	(0.060)
Age	0.003	0.004	0.002	0.002	0.000	0.005*
	(0.002)	(0.002)	(0.003)	(0.003)	(0.001)	(0.002)
Married	0.025	0.147*	0.113*	0.013	-0.052	0.007
	(0.063)	(0.078)	(0.055)	(0.063)	(0.051)	(0.040)
Children	0.004	0.111	-0.060	-0.179**	0.064	0.030
	(0.048)	(0.104)	(0.123)	(0.072)	(0.115)	(0.072)
Birth Italy	0.052	0.168**	0.155	0.031	-0.030	0.136
	(0.056)	(0.064)	(0.112)	(0.064)	(0.036)	(0.097)
Secondary Education	0.140*	0.216*	0.180	0.227*	0.042	0.071
	(0.063)	(0.103)	(0.109)	(0.106)	(0.053)	(0.055)
Employed	-0.034	0.020	0.045	0.029	0.024	0.035
	(0.027)	(0.037)	(0.097)	(0.066)	(0.024)	(0.105)
Location FE	Y	Y	Y	Y	Y	Y
Session FE	Y	Y	Y	Y	Y	Y
Observations	205	205	205	205	143	205

Notes: Standard errors clustered at the location level are in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The table reports the results of regressions on single outcome variables, where each outcome takes a value of 0 if the respondent did not answer and 1 if they provided an answer, regardless of accuracy.

Table A.5: Heterogeneity analysis of *Financial Literacy*

Panel A: Socio-demographic characteristics I						
	Age		Married		Children	
	< 43	≥ 43	No	Yes	No	Yes
Treatment	0.713**	1.342***	1.003**	0.796*	1.640**	0.825**
	(0.271)	(0.306)	(0.309)	(0.374)	(0.620)	(0.298)
Location FE	Y	Y	Y	Y	Y	Y
Session FE	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	103	106	115	90	39	166
Panel B: Socio-demographic characteristics II						
	Birth Italy		Secondary Education		Employed	
	No	Yes	No	Yes	No	Yes
Treatment	0.388	1.464***	1.211***	0.691*	0.826**	1.289**
	(0.284)	(0.292)	(0.184)	(0.317)	(0.325)	(0.375)
Location FE	Y	Y	Y	Y	Y	Y
Session FE	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	105	100	56	149	141	64
Panel C: Financial fragility measures						
	In charge of finances		In charge of budget		Has bank account	
	No	Yes	No	Yes	No	Yes
Treatment	0.918	0.892**	0.715**	1.016**	0.975**	0.787**
	(0.614)	(0.318)	(0.304)	(0.323)	(0.315)	(0.281)
Location FE	Y	Y	Y	Y	Y	Y
Session FE	Y	Y	Y	Y	Y	Y
Controls	Y	Y	Y	Y	Y	Y
Observations	46	159	52	113	57	147

Notes. The table presents the results of heterogeneity analysis. Standard errors, clustered at the location level, are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$..

Appendix B: Questionnaire

Here you can find the English translation of the questionnaire that participants filled in. The original Italian version is available upon request from the authors. In italics we report (i) names of sections of the questionnaire for ease of consultation; (ii) names of variables built by using the answer to a specific question. None of these names appeared in the original questionnaire. In bold italics we report the name of the main dependent variables that are built using the answer to a specific question. These names were not included in the original questionnaire. Participants only saw the questions reported in normal font, with progressive numbering. Q31 and Q32 were asked in sessions of rounds 2 and 3 of the experiment only.

Financial and digital skills

1. *(Adequate financial knowledge)* Do you think that your level of financial knowledge (for example on concepts related to debt and household budget) is enough to make adequate financial decisions?

- Yes
- No
- Prefer not to answer
- Maybe

2. Do you think that your level of digital skills allows you to actively participate in social life?

- Yes
- No
- Prefer not to answer
- Maybe

3. *(Need to improve financial knowledge)* Do you feel the need to increase your level of financial knowledge (for example with regards to concepts such as interest rates, inflation, family budgeting)?

- Yes
- No
- Prefer not to answer

4. Do you feel the need to increase your level of digital skills (for example with respect to the use of mobile phone, computer, internet browsing, home-banking)?

- Yes
- No
- Prefer not to answer

Digital use

5. Do you have an email account?

- Yes
- No
- Prefer not to answer

6. Do you own a mobile phone?

- Yes
- No
- Prefer not to answer

7. If yes, how do you usually top-up your credit?

- Online
- In a shop
- Through your bank
- Direct debit on yout account

8. Can you connect to the internet from home?

- Yes
- No
- Prefer not to answer

9. *(Bank app)* If you have a bank account, do you have the app of your bank on your mobile phone?

- Yes
- No
- Prefer not to answer
- Not relevant (I do not have a bank account/ I do not have a mobile phone)

10. *(Bank app use)* If you have a bank account, have you ever used the app of your bank from your mobile device?

- Yes
- No
- Prefer not to answer
- Not relevant (I do not have a bank account/ I do not have a mobile phone)

11. In the last two months, how many times have you made reservations online? (for example to book a medical visit or an appointment at a municipal office)

- Once
- Never
- More than three times

- I prefer not to answer

Math skills

12. A pen and an eraser together cost €1.10. The pen costs exactly one euro more than the rubber. How much is the rubber?

- 0.05
- 1
- 0.10
- 0.90
- I do not know

13. If 5 machines take 5 minutes to make 5 boxes, how long does it take for 100 machines to build 100 boxes?

- 100
- 5
- 1
- 10
- I do not know

14. How much is 25 x 4

Budget

15. *(In charge of finances)* I would like to ask you some questions about financial topics. Can you tell me who is in charge of household finances in your household?

- Only me
- Both you and my partner (husband/wife)
- Both you and another member of my family (or more members of my family)
- Only my partner
- Only other members of my family (excluding my partner)
- Other (please specify ...)
- Nobody is responsible for that
- I don't know
- I prefer not to answer

16. *(Able to manage finances)* If you are not the one in charge, do you think that you will be able to manage your household finances?

- Yes

- No
- Maybe

17. *(Family sets the budget)* The next question is about family budget. A family budget is used to decide how much of your household income will be split between spending and savings, i.e.how much a person or family decides to save and how much she decides to spend. Does your family set a budget?

- Yes
- No
- I don't know
- I prefer not to answer

18. *(In charge of budget)* If yes, which member of your family is in charge of creating the budget?

- My partner
- Both me and my partner
- Another member of my family
- Only me

19. *(Insufficient income)* Sometimes it turns out that household income is not enough to cover ordinary expenses. Has this happened to you in the last 12 months?

- Yes
- No
- I don't know
- Not relevant (I do not have any income)
- I prefer not to answer

20. *(Budget statement)* According to you, which of the following statements about the budget is true?

- The family budget is useful for keeping expenses under control
- The family budget is a waste of time
- The family budget is a constraint
- I don't know
- I prefer not to answer

21. ***(Budget Composition)*** Could you give me an example of a fixed expense and an example of a variable expense that your family faces?

Financial Behavior and Knowledge of Financial Instruments

22. *(Financial product knowledge)* Can you please tell me if you have ever heard of the following financial products?

22.a Microcredit: Yes / No / I don't know

22.b Mortgage: Yes / No / I don't know

22.c Personal loan: Yes / No / I don't know

22.d Debit card: Yes / No / I don't know

22.e Credit card: Yes / No / I don't know

22.f Bank account: Yes / No / I don't know

23. *(Financial product use)* Can you please tell me if you have ever used the following financial products?

23.a Microcredit: Yes / No / I don't know

23.b Mortgage: Yes / No / I don't know

23.c Personal loan: Yes / No / I don't know

23.d Debit card: Yes / No / I don't know

23.e Credit card: Yes / No / I don't know

23.f Bank account: Yes / No / I don't know

24. *(Has bank account)* Do you have a bank account?

- Yes
- No
- I prefer not to answer

Interest Rate, Inflation, Risk, and Return

25. ***(Numeracy)*** Imagine you borrow 100 Euros at the interest rate equal to 2% per year. In five years, how much do you think you have to pay back?

- more than 102 Euros
- 102 Euros
- less than 102 Euros
- I don't know

26. ***(Inflation 1)*** Imagine that the interest rate on your bank account is 1% per year and the inflation rate is 2% per year. After 1 year, how much will you be able to buy with the amount of money available on your bank account?

- More than what I can buy today
- Exactly how much I can buy today
- Less than what I can buy today
- The information provided does not allow me to answer this question
- I do not know

27. ***(Inflation 2)*** Assume that the inflation rate is equal to 1.5%, does a bank account providing an interest rate of 0.5% allow you to maintain constant the purchasing power of your money in the account?

- Yes
- No
- I don't know

28. ***(Financial Investment)*** If financial asset X has an expected return of 3% and asset Y 7%, which of the two is riskier?

- X
- Y
- I do not know

Risk Tolerance

29. *(Risk attitude)* How much do you agree with the following statement from 0 (not at all) to 10 (completely): "Risk is an uncertain event, against which we must seek protection rather than an opportunity for profit" Score 0-10

30. *(Risk dummy)* What would you prefer if you had to choose between:

- a loss of 100 euros
- with a probability of 0.50 and a loss of 0 with a probability equal to 0
- I do not know

Behavioral traps

31. ***(Framing)*** You are about to buy a car. The price of the car is 8000 euro. You can choose between two options: A. a discount of 400 euros B. a 5% discount Which do you choose?

- Option A
- Option B
- It is indifferent
- I don't know

32. You are about to buy a house: interest rates have increased compared to the past, which mortgage would you go for?

- Fixed-Rate mortgage
- Variable-rate mortgage
- It is indifferent
- I don't know

General information

33. *(Birth Italy)* Were you born in Italy?

- Yes
- No
- I don't know

34. If no, where were you born?

35. *(Children)* Do you have kids?

- Yes
- No
- I prefer not to answer

36. *(Number of children)* If yes, how many children under 18 live with you?

37. *(Number of adults)* How many people over 18 live with you at home?

38. *(Married)* What is your marital status?

- Unmarried
- Married
- Divorced
- Widowed
- In a civil union
- I prefer not to answer

39. *(Secondary Education)* What is the highest level of education you have completed?

- No education
- Primary school
- Secondary school
- Upper secondary school
- University or higher education
- I prefer not to answer

40. *(Age)* How old are you?

41. *(Employed)* In general, which of the following categories best describes your work situation?

- Self-employed
- full time employee
- part time employee
- Unemployed
- housewife

- I prefer not to answer
- Retiree

42. If employed,in which sector/industry do you work in?

43. Did you enjoy the course? *(filled in only by subjects in the treatment group)*

44. Comments