TRUST AND SAVING IN FINANCIAL INSTITUTIONS

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ABSTRACT

We examine the role of trust in financial institutions as a necessary condition for the wider use of formal financial services by the poor. We randomly assigned beneficiaries of a conditional cash transfer program in 130 villages in Peru to attend a 3.5 hour training session designed to build their trust in financial institutions. Using household survey data combined with high-frequency administrative data, we find that the intervention: (a) significantly increased the level of trust in the financial system, but had no effect on knowledge of the banking system or financial literacy; and (b) resulted in the treatment group saving 13 Peruvian Soles more than he control group over a ten month period and (c) had no effect of the use of bank accounts for transactions. The increase in savings is close to double the savings of the treatment over the 10 month period prior to the intervention, 7 times the savings of the control group over the same period, and a 1.6 percentage point increase in the savings rate out of the cash transfer depostis.

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"Virtually every commercial transaction has within itself an element of trust.... It can be plausibly argued that much of the economic backwardness in the world can be explained by the lack of mutual confidence." Kenneth Arrow (1972)

1. Introduction

While bank accounts play a crucial role in everyday economic activities in high-income countries, fewer than 40% of the households in low- and middle-income countries (LMIC) have one (Demirgüç-Kunt et al., 2018). Instead, most poor households rely on informal, costly and risky alternatives and would benefit from access to a range of the financial services offered by formal institutions (see, for example, Bruhn and Love, 2014; Célérier and Matray, 2019; Dupas and Robinson, 2013; Kast et al., 2018 and Stein and Yannelis, forthcoming). Savings, in particular, facilitate investment in productive activities, education and household durables, and help smooth out income shocks. In light of these advantages, many LMIC governments and international organizations have set themselves the goal of improving these population groups' access to formal financial institutions.

One reason why poor households may not put their savings in a bank account is that they do not trust the bank to make that money available to them when it is wanted (CGAP, 2012; Dupas et al., 2016; FDIC, 2016; Bachas et al., 2019). Trust is an essential element of economic transactions and an important driver of economic development (La Porta et al., 1997; Algan and Cahuc, 2010). It is particularly crucial in financial transactions in which people exchange money for promises, and it is essential where the legal institutions that enforce contracts are weak (McMillan and Woodruff, 1999; Karlan, Mobius, Rosenblat, and Szeidl, 2009).[4] A lack of trust may be one reason why randomized field experiments in three different countries have found that, even among people who take up accessible and free formal savings products, account use is low (Dupas et al., 2018). Mistrust may also account for the fact that beneficiaries of cash transfer programs withdraw most of the funds deposited in their bank accounts by the program in one lump-sum withdrawal at the beginning of each pay period; this has been found to be the case, for example, in Brazil, Colombia and South Africa (Bold, Porteous and Rotman, 2012), India (Muralidharan, Niehaus and Sukhtankar, 2016), Niger (Aker et al., 2016) and Mexico (Bachas et al., 2019).

We examine this issue with a field experiment designed to improve trust in financial institutions among beneficiaries of Peru's Juntos ("together") conditional cash transfer program. We teamed up with the Instituto de Estudios Peruanos (IEP), a Peruvian NGO specializing in financial inclusion, to design and implement a three-hour workshop intended to foster trust among

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[4] In developed countries, trust has been shown to be key to stock market participation (Guiso, Sapienza and Zingales, 2008), use of checks instead of cash (Guiso, Sapienza and Zingales, 2004), mortgage refinancing (Guiso, Sapienza and Zingales, 2004 and 2008; Johnson, Meier and Toubia, 2019), and decisions to not withdraw deposits from financial institutions in times of financial crisis (Iyer and Puri, 2012; Sapienza and Zingales, 2012). In LMICS, there is evidence that trust affects borrowing money and the take-up of insurance (Karlan, Mobius, Rosenblat, and Szeidl, 2009; Cole et al., 2013).

Juntos beneficiaries and to evaluate the intervention's impact on beneficiary savings. The Juntos program sets up savings accounts for each beneficiary in the Banco de la Nacion (BN), a public institution dedicated to increasing the financial inclusion of underserved populations and regions, and has been depositing bimonthly transfers of 200 Peruvian soles (about US$ 60) into those accounts since the beginning of the program in 2005.

We find that program beneficiaries who were assigned to a financial trust workshop were more likely to report trusting the bank 12 months after the workshop. Specifically, while almost half the control group reported trusting the bank, the trust intervention caused a 40% increase in trusting the bank. A significantly larger proportion of the members of this latter group also said that they were more willing to put their savings in a bank account than to use informal alternatives such as savings in the form of assets like cattle. However, the workshops did not seem to have any effect in terms of the beneficiaries' knowledge about the banking system, their financial literacy or their understanding of how savings or other bank accounts, loans or interest rates work.

Then, using high-frequency administrative account-level data, we examined the effect of the treatment on bank use and savings. While treatment did not affect the number of transactions (deposit and withdrawals), we did find that the financial trust workshops resulted in the treatment group saving 13 Peruvian Soles more than the control group over a ten month period. The increase in savings is close to double the savings of the treatment over the 10 month period prior to the intervention, 7 times the savings of the control group over the same period, and a 1.6 percentage point increase in the savings rate out of the cash transfer depostis.

We argue that building trust in financial institutions is a necessary condition for promoting the use of formal financial services (i.e., financial inclusion requires trust). Moreover, it is likely that trust is an important element in the effectiveness of other strategies, such as lowering transactions costs or raising interest rates. Our main contribution to this literature is to provide the first field experiment to generate evidence that trust in financial institutions can be influenced by experience and information and that higher levels of trust translate into an increase in the use of financial institutions.

Our study contributes to a small observational literature on the relationshp between trust and savings (Karlan, Ratan and Ziman 2014). Osili and Paulson (2014) show that immigrants who have experienced a systemic banking crisis in their country of origin are 11 percentage points less likely to use banks in the U.S. than otherwise similar immigrants who did not live through a crisis, and the effects are larger for people who experienced crises in countries without deposit insurance. Bachas et al. (2019) study an at-scale natural experiment in Mexico in which debit cards are rolled out to beneficiaries of a cash transfer program, who already received transfers directly deposited into a savings account. They find that after two years with a card, beneficiaries accumulate a savings stock equal to 2 percent of their annual income. Debit cards increased account usage and savings through two mechanisms: first, they reduced the transaction costs of accessing money in the account; second, they reduced monitoring costs, which leads beneficiaries to check their account balances frequently and build trust in the bank.

The rest of this paper is organized as follows. Section II describes the context and the intervention. Section III explains the research design. Section IV presents the estimation strategy and Section V presents the results. Section VI concludes.

2. Intervention

The trust workshop was designed and implemented by Instituto de Estudios Peruanos (IEP), a Peruvian NGO specialized in financial inclusion. It was targeted to beneficiaires of Juntos, Peru's conditional cash transfer program for poor households in which there are pregnant women and/or children under 19 years of age. Juntos gives 200 soles (approximately US$ 60) to the female head of beneficiary households once every two months provided that the household fulfills certain conditions related to schooling and to preventive health services for their children. Juntos transfers are paid into a savings account that is opened for every user and managed by the Banco de la Nación (BN), a state-owned bank committed to service underserved populations. Typically Juntos beneficiaries withdraw all of the transfer in cash from the account soon after it is deposited. Juntos began its opertation in 2005 and initially served 23,000 beneficiaries in 70 districts. Over the following 15 years, it has expanded its coverage to over 700,000 beneficiaries living in 1,325 (70%) of the country's 1,874 districts.[5]

The goal of the workshop was to foster trust in banks among Juntos beneficiaries by teaching them about the banking system, the role of the government in regulating Banks, consumer rights and protections, the relationship of the MultiRed agents to Banks and that the Government affords the same protections to consumers who use the Agents emphasizing the safety of savings accounts. IEP facilitators sought to strengthen the participants' trust in the financial system by presenting a photo-led story in which a Juntos program beneficiary named Isadora explains how she saves her Juntos transfers in the bank and why she trusts the bank to protect here savings.

The following topics were covered during the approximately 3.5-hour workshop:

A. Banco de la Nación [Slides 1-4]

Your Juntos cash transfer is paid into a saving account in Banco de la Nacion every two months from which you can withdraw some or all of the transfer in cash. Your saving account is like a box into which Juntos deposits your payment and nobody else, except you, can withdrawal your money. The money always be there for when you want it.

You must use your MultiRed card and password to withdraw money from your savings account. The MultiRed card with your password is similar to a key that only you can you use to get access to your money. No money can be deducted or withdrawn from your account without the card and the password.

B. *How the Government Protects Your Money* [Slides 5-9]

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[5] https://www.juntos.gob.pe.

The Government protects all money deposited into bank accounts. The Government makes sure that all banks, including Banco de la Nacion, are safely managing and protects your money. The Superintendencia de Banca, Seguros y AFP (Peruvian Superintendent of Bank) is in charge of making sure that banks safely manage your money. Fondo de Seguro de Depositos (Deposit Insurnace Fund) is in charge of giving your money back in case of bankruptcy of Banco de la Nacion or fraud.

How do you get help if you have difficulty getting access to your funds at a bank branch or agent or have a complaint? You can call a toll free telephone hotline and obtain help in your own language. If you have a complaint or concern about Juntos, you can call another toll free number. IEP handed out cards with the free phone numbers.

C. MultiRed Agents and Debit Cards [Slides 13-33]

Illustration of using the debit card to make deposits, withdrawals and balance checks. Besides using your debit card in the bank branch or in an ATM, you can also use them in an MultiRed Agent, which is equivalent to a very small branch of Banco de la Nacion where you can make deposits, withdrawals, etc. Advantages of MultiRed Agent (i.e., save cost and time of travelling, safety and security). Explanation on how to use the MultiRed Card in an Agent's shop. Explanation on how to use the MultiRed Agent (transactions). In small groups, simulate the use of a MultiRed Agent.

D. Safe Saving [Slides 34-42]

Discussion about the relative safety of alternative places to save. Saving in Banco de la Nación is a safe option versus keeping cash at home or purchasing animals or other assests. One way to save is not withdrawing all your Juntos payment.

E. Trust Building Activity

One out of 33 participants was randomly given 50 Soles to deposit in their account during the workshop and then asked to go to the bank to try to withdraw 30 soles later in the week and report back to the group.

3. Experimental Design, Analysis Sample and Compliance

The study sample was drawn from Juntos beneficiaries who live in rural villages in 17 districts in the Sierra region of Peru. These beneficiaries receive the Juntos transfers deposited in a BN savings account linked to a debit card. Beneficiaries can access their account either through the BN branch located in the district capital or through a MultiRed agent. These agents are private store owners located near rural beneficiary households and are certified as BN agents to conduct account transactions (deposits and withdrawals) for Juntos beneficiaries via a wireless point-of-sale (POS) device. In the study, we included villages with 15 or more Juntos beneficiaries who received the program transfer payment via direct deposit into their BN account. This gave us a

universe of 130 villages from which we randomly assigned 64 villages to the treatment and 66 to the control group. The workshops were conducted between November 2014 and July 2015 and were rolled out over time at the distict level.

At the time of the randomization, there were 4,562 Juntos beneficiaries in the 130 villages included in the study. We excluded Juntos beneficiaries who had been dropped from the program due to noncompliance with the conditionalities or who had moved away from their village (803). In addition, we trimmed off the top 0.1% of our sample to exclude outliers in the banking variables (251). Finally, we excluded households that, for scheduling reasons, had received Juntos payments twice in one bimester and that, as a result, did not receive a Juntos payment during the next period (321). This process left us with a total of 3,187 Juntos beneficiaries, of whom 1,450 live in treatment villages and 1,737 live in control villages. In all, 1,166 of the people assigned to treatment actually participated in the financial trust workshop, for a take-up rate of 80%. In addition, 198 out of the 1,737 people assigned to the control group attended the training, resulting in an 11% noncompliance rate in the control group.

4. Data and Measurement

Our primary source of information was administrative records from November 2013 to August 2015. Juntos provided the list of all beneficiaries living in the study villages as well as program compliance information for each of the beneficiary households. The Ministry of Development and Social Inclusion merged the information from Juntos with socio-demographic information from the national poverty mapping system (Sistema de Focalizacion de Hogares (SISFOH)) using the beneficiaries' national identification numbers (DNIs). BN then added transaction-level data on each deposit and withdrawal for each account, again using the DNI, and then provided us with the merged data after scrambling the DNIs to anonymize them. We aggregated the transaction-level data into account-level data by Juntos payment bimester, including the number of deposits, value of deposits, number of withdrawals, value of withdrawals, and savings.

Ideally, in order to study their savings behavior, we would like to know bank balances (i.e. the stock of savings) at the beginning of each payment bimester. Since that information was not provided, we instead measure the initial stock of savings as the value of all deposits minus withdrawals made during the five bimesters (10 months) prior to the intervention. Then, to compute the stock of savings in each bimester of the post-treatment period, we added to the last period's stock of savings the value of deposits minus withdrawals made during that bimester.

We have data for 11 bimesters (November 2013 to August 2015). However, information on withdrawals was accidently dropped from one bimester (July and August of 2014). We therefore exclude this bimester from the analysis. Thus, we relied on the remaining 5 pre-treatment bimesters for which we have complete data to compute the stock of savings at baseline and the 5 post-treatment bimester periods to analyze the effect of the training on savings.

We supplemented the administrative data with a household survey conducted between 12 and 18 months after the intervention. On our behalf, Innovations for Poverty Action (IPA) conducted

a survey of the beneficiary households between April and May 2016. The response rate was 89.9% and was the same for treatment and control groups. BN merged the survey data with the adimistrative data using the DNI, and provided us an anonymized data base for analysis.

The survey collected information about household interactions with and perceptions of BN and covered the topics of trust, savings behavior and financial knowledge. The questions about trust covered trust in the bank, bank staff, and bank branch and preferences regarding saving in the bank versus holding cash in the house or purchasing assets such as animals. To measure knowledge/financial literacy, respondents were asked what a savings account was, what a MultiRed agent was, what savings and loans institutions were, and what interest rates were. The specific questions used to measure trust and knowledge/financial literacy are provided in Appendix Table A1.

5. Methods

We examine the impact of treatment on two types of outcomes. The first set are measures of trust and knowledge/financial literacy obtained using data form the cross-sectional household survey. Since treatment was randomized and the experimental groups were balanced (see Table 1), we simply estimate the difference in the means of the treatment and control groups using the following regression:

$$Y_{iv} = \alpha + \beta\, ITT_v + \varepsilon_{iv} \tag{1}$$

where Y_{iv} is the outcome variable for individual i in village v, ITT_v is a dummy variable that indicates whether or not village v has been assigned to treatment and ε_{iv} is the error term. We cluster the standard errors at the village level to account for any intra-cluster correlation.

In studies with multiple outcomes, statistically significant effects may emerge simply by chance. The larger the number of tests, the greater the likelihood of incurring in a type I error. We correct for this possibility by using Bonferroni family-wise error rates to adjust the p-values of the individual tests as a function of the number of outcome variables. We rely on Bonferroni FWER corrections at the 10% level of statistical significance in conceptually similar blocks of outcomes.[6]

The second set of outcomes are transactions and savings obtained using data from the longitudinal administration account-level data. Given that Juntos transfers are made every two months, the data is organized in bimesters, following the timing of the transfers. This allows us to examine how the treatment effect evolves over exposure – i.e., the number of bimesters since treatment.

We estimate the effect of treatment on the number of transactions and savings using the following regression specification:

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[6] For example, if there are 5 outcome variables, the Bonferroni corrected *p*- value is 0.02 (=0.1/5). Therefore, we would reject the null hypothesis of no treatment effect if the estimated coefficient is significant at the 2% level.

$$Y_{ivt} = \alpha_i + \sum_{k \neq -1} \beta_k ITT_{vk} + \lambda_t + \varepsilon_{ivt} \qquad (2)$$

Where Y_{ivt} is the outcome variable for individual i in village v in calendar period t. $ITT_{v,k}$ takes a value of 1 if the village v is assigned to treatment and k is the number of bimesters since treatment, with treatment happenng at k=0. We also include bimester fixed effects (λ_t) and individual fixed effect (α_i). The individual fixed effects control for any concerns over composition effects that might have occurred due to the rollout over time by district. However, the results are almost identical with and without fixed effects. The term ε_{ivt} is a random error term that is possibly correlated within villages due treatment assignment at the village level. We therefore cluster standard errors at the village level.

The models in equations (1) and (2) estimate the intention-to-treat (ITT) impacts. Since there is some noncompliance, we also estimate the local average treatment effect (LATE) by instrumental variables using 2SLS with treatment assignment as an instrument for participating in the workshop. Again, we cluster the standard errors at the village level as a basis for statistical inference.

6. Results

6.1. Descriptive Statistics and Balance Checks

Descriptive statistics for the analysis sample at baseline for households in the treatment and control groups are presented in Table 1. In two cases, out of 16 contrasts, we reject the null hypothesis of equal means between groups at conventional levels of statistical significance – naturally. However, once we use using Bonferroni family-wise error rates, we never reject the null hypothesis. In Appendix Table A2, we compare the means of baseline variables for the analysis sample and for those excluded from the analysis and find only one variable for which we reject the null hypothesis of equal means. Again, once we use using Bonferroni family-wise error rates, we never reject the null hypothesis, suggesting that the analysis sample is representative of the population of Juntos beneficiaries in the 17 districts.

The analysis sample (see Table 1) consists of households where the primary Juntos beneficiary is female, is on average about 40 years old, has completed 6 years of schooling and whose primary language is not Spanish. About two thirds of these beneficiaries work in agriculture but only 12% own their own farms. Very few beneficiaries have contact with formal financial institutions, as only 4% have a bank account other than their Juntos BN account and only 3% participate in a rotating savings and credit association (ROSCA). On average, individuals make one deposit (the Juntos transfer) into their BN account and one withdrawal from it each bimester (two transactions per bimester). The difference between the baseline stock of savings (i.e. the difference between all deposits and withdrawals in the 10 month period prior to the intervention) between the treatment and control group is -3.8 Peruvian Soles and is not statitically different from zero.

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6.2. Trust and Knowledge/Financial Literacy

Overall, the training workshops appear to have increased trust in the banking system substantially (see Figure 1, Panel A, and Appendix Table A3). All of the treatment effects on all of the outcome variables are sizable in magnitude and significantly different from zero using conventional p-values, although trust in bank staff is not statistically significant using Bonferroni family-wise error rates. The effect of treatment increases the number of beneficiaries who reported that they trusted the BN by 19 percentage points, or 40% over the control mean (48%). Trust in BN staff increases by 6.5 percentage points, or 18% over the control mean (36%). Trust in the BN branch increases by 11 percentage points, or 14% over the control mean (78%). Treatment also increases the preference for putting savings in the bank over keeping savings at home by 21 percentage points, or 46% over the control mean (46%). Treatment increases the preference for putting savings in the bank over holding savings in the form of assets such as livestock by 18 percentage points, or 62% over the control mean (29%). Finally, treatment increases a summary measure of overall trust in banking by 30% over the control mean (49%).[7]

Another possible explanation for any increase in savings associated with the workshop is that the workshops may have also increased the beneficiaries' knowledge about the banking system and financial literacy. If that were the case, it would be hard to distinguish the effect on saving behaviour of trust from that of knowledge/financial literacy. By and large, however, we find very small and statistically insignificant effects on knowledge/financial literacy (see Figure 1, Panel B, and Appendix Table A3). Thus, all these results suggest that any effect on savings was likely driven by increased trust as opposed to increased knowledge/financial literacy.

6.3. Use of Accounts and Savings

The effect of the financial trust workshop on savings is shown in Figure 2 (see also Appendix Table A4), where the local average treatment effects by bimester since the workshop was offered are presented.[8] The difference between the treatment and control groups is postive and increases over time. This suggests that treatment beneficiaries are saving more than the control group during each period and that their stock of savings is rising. After 5 bimesters (10 months), the difference in the stock of savings averaged 13 soles. At baseline (k=-1), the average stock of savings was 7 soles, which implies that, in less than a year, the treatment increased saving levels in aproximately double baseline savings. In addition, this effect is almost 7 times the savings of the control group over the same period.[9] Finally, this treatment effect also translates into a 1.6%. increase in the savings of Juntos transfers during the period studied.[10]

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[7] Overall trust is the sum of the 5 trust dummy variables divided by 5. Similarly, the overall knowledge variable is the sum of the 4 knowledge dummy variables divided by 4.

[8] The intention-to-treat (ITT) results are very similar and are also reported in Appendix Table A5.

[9] In particular, over the same period of time, the control group have saved 2 soles.

[10] Specifically, after the training, JUNTOS beneficiaries have received 800 soles in four 200 soles payments.

While the financial trust workshop had a large effect on trust, it does not seem to have affected the use of the account for transactions (see Figure 3 and Appendix Table A4). One possible reason is that the closest BN branch or agent was still quite far away from most of the households. For example, on average, the closest agent was 4 kilometers away, which represents, on average, a total travel time of over 50 minutes.

7. Conclusion

We conducted a field experiment to assess the extent to which the level of trust in financial institutions among Peruvian cash transfer program beneficiaries could be raised and, if their level of trust was raised significantly, whether it would be effective in increasing their use of their bank accounts for transactions and saving. The results show that it was indeed possible to substantially increase their level of trust and thereby bring about an increase of 13 Peruvian soles in their savings account balances after 10 months as compared to an average of 7 soles at baseline.

The savings effect represents a 1.6% increase in the saving of the cash transfer deposited by the program during those 10 months. This is a large effect. Just to put it in perspetive, if a country would increase its savings rate in 1.6p.p. of its output, it would tanslate into a permanent increase in its yearly rate of economic growth of aproximately between 0.4-0.6%. Thus, a country growing at 3% per year would see its growth accelearate between 13-20%.

There is no evidence that the workshop increased the beneficiaries' knowledge about the banking system or their financial literacy, which suggests that trust was the likely mechanism for the increase in savings.

Previous research suggests that increasing access to bank accounts does not by itself guarantee the use of those accounts (Dupas et al., 2018). Around the world, while cash transfer programs open bank accounts in beneficiaries' names, few of those bank accounts are actually used, as beneficiaries prefer to withdraw their entire transfer as soon as the cash is available (Bold, Porteous and Rotman, 2012; Muralidharan, Niehaus and Sukhtankar, 2016; Aker et al., 2016; and Bachas et al., 2019).

Our results suggest that trust in financial institutions is an important factor in encouraging poor households to hold their savings in bank accounts. Trust is also likely to increase the efffectiveness of other interventions as well, such as those involving a reduction in transaction costs or increased returns, in terms of influencing savings. In summary, trust may be key for the financial inclusion of the poor.

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Figure 1: Effect of Financial Trust Workshops on Trust and Knowledge/Financial Literacy
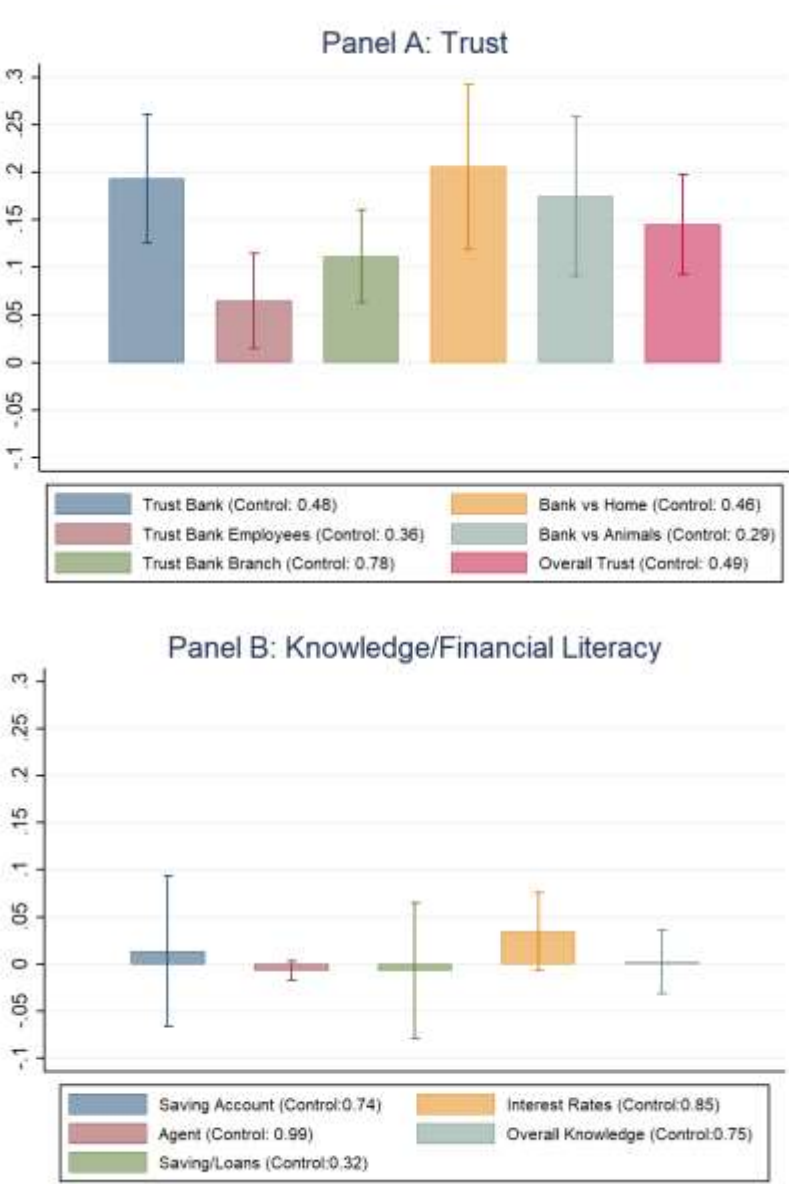
Note: This figure reports the differences in the mean for each variable between the treatment and control groups and the 95% confidence region for that difference based on data from the household survey. The difference in the means is the LATE estimate of the impact of the trust training workshop on the outcomes. The mean outcome for the control group is given in the key in parentheses. The point estimates, standard errors, sample sizes and means of the control groups for each of the bars are presented in Appendix Table A3. Appendix Table A1 reports the questions used to collect the outcome measures. The overall trust and knowledge/financial literacy measures are the sum of the responses regarding other outcome measures divided by the number of outcome measures.

Figure 2: **Effect of Financial Trust Workshops on Saving**
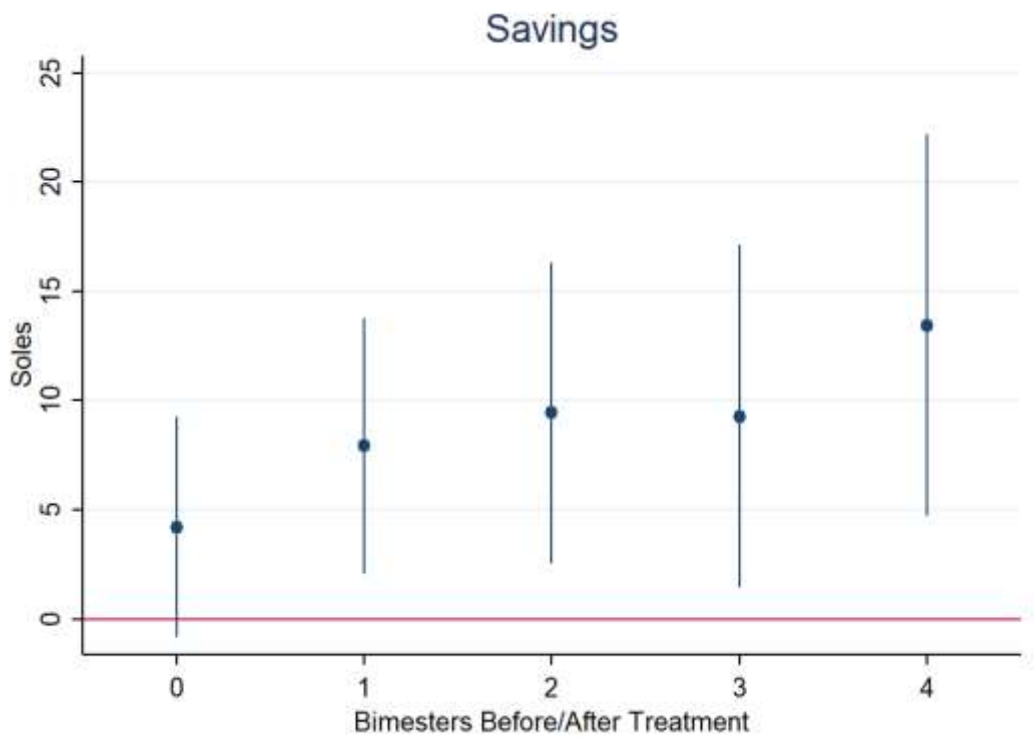
Note: This figure presents the estimated LATE treatment effects and 95% confidence regions of the financial trust workshops on the level of savings in bank accounts at the end of each bimester over time. (Treatment is based on equation (2) using the administrative data on 3,184 households over 6 bimesters.) The estimates associated with this figure are presented in Appendix Table A4. The F-statistic for the first stage of the LATE estimates as well as the ITT estimates are also reported in Appendix Table A4.

Figure 3: Effect of Financial Trust Workshops on the Number of Transactions
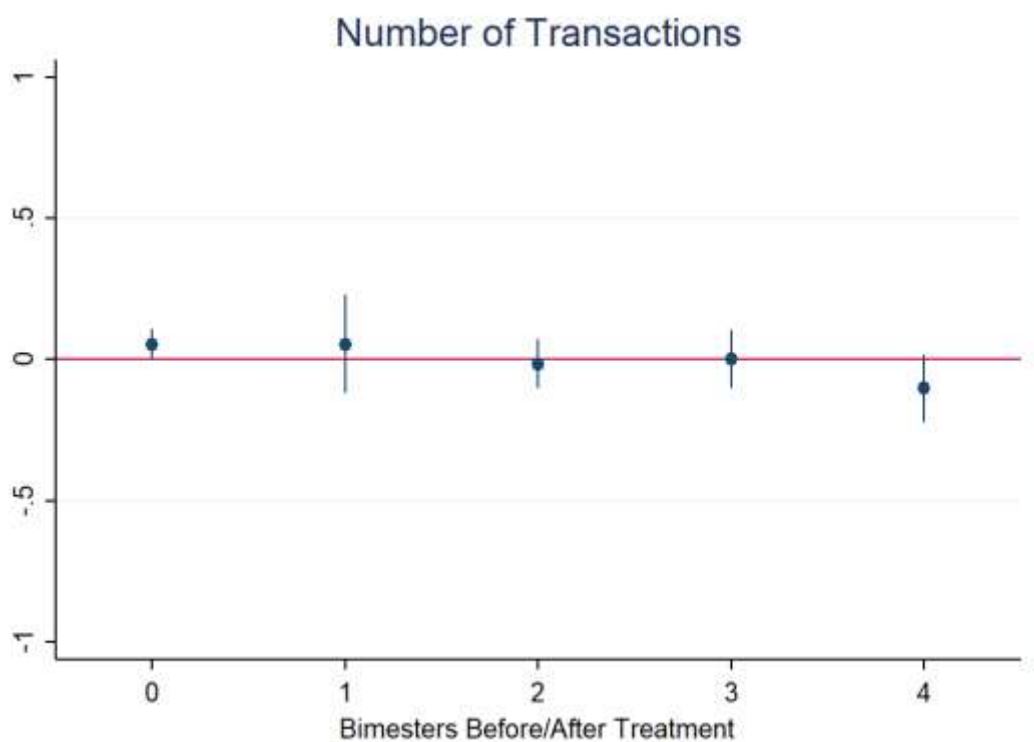
Note: This figure presents the estimated LATE treatment effects and 95% confidence regions of the financial trust workshops on the number of transactions (deposits plus withdrawals) by bimester. (Treatment is based on equation (2) using administrative data on 3,184 households over 6 bimesters.) The estimates associated with this figure are presented in Appendix Table A4. The F-statistic for the first stage of the LATE estimates as well as the ITT estimates are also reported in Appendix Table A4.

Table 1: Baseline Descriptive Statistics (Analysis Sample)

Variable	Treatment			Control			Means Difference	*P* Value
	Mean	SD	N	Mean	SD	N		
Age	39.73	10.03	1408	40.80	10.16	1661	-1.07	0.12
Female	0.97	0.16	1408	0.96	0.19	1661	0.01	0.17
Household Size	4.77	1.61	1408	4.82	1.60	1661	-0.05	0.59
Years of Schooling	5.74	4.16	1407	6.05	4.05	1661	-0.31	0.54
Preferred Language	0.17	0.37	1408	0.20	0.40	1661	-0.03	0.54
Work at Farm	0.65	0.48	1257	0.65	0.48	1565	-0.01	0.93
Own Farm	0.12	0.33	1257	0.11	0.32	1565	0.01	0.79
Own Home	0.82	0.38	1408	0.79	0.41	1661	0.03	0.55
Have Other Bank Accounts	0.04	0.20	1408	0.03	0.18	1661	0.00	0.66
Have ROSCA	0.03	0.17	1392	0.03	0.16	1642	0.00	0.57
Number of Deposits	0.97	0.19	1408	0.98	0.15	1661	-0.01	0.05
Number of Withdrawals	0.93	0.28	1408	0.93	0.30	1661	0.01	0.83
Number of Transactions	1.90	0.44	1408	1.91	0.39	1661	-0.01	0.76
Value of Deposits	192.79	37.95	1408	195.82	28.74	1661	-3.03	0.04
Value of Withdrawals	186.23	55.37	1408	184.10	58.29	1661	2.13	0.70
Stock of Savings	7.07	53.65	1408	10.83	67.60	1661	-3.77	0.53

This table uses Survey Data (2016) for the socioeconomic variables and administrative data for the bank variables (in the bimester before the beginning of the Financial Trust Training). The Stock of Savings variable is calculated using the bank balances in the five bimesters before the beginning of the intervention. The Preferred Language variable takes 1 if Spanish or 0 if Quechua or Aymara. All monetary values are expressed in Soles.

Online Appendix

Appendix Table A1: Definitions of Trust and Knowledge/Financial Literacy Variables

Variable Name	Survey Questions
Trust Variables	
Trust bank	Do you trust the bank? (=1 Yes; =0 No)
Trust bank staff	Do you trust the bank staff? (=1 Yes; =0 No)
Trust bank branch	Do you trust your bank branch? (=1 Yes; =0 No)
Prefer to save in bank vs home	Do you feel safer having your savings in a bank or at home? (=1 Bank; =0 Home)
Prefer to save in bank vs assets (livestock)	Do you feel safer having your savings in a bank or in the form of assets (livestock)? (=1 Bank; =0 Livestock)
Overall trust	Share correct = Sum of correct answers to trust questions divided by the total number of questions (5)
Knowledge/Financial Literacy Variables	
Savings account	Do you know what a savings account is? (=1 having money in the bank; =0 otherwise)
Savings/loans	Do you think you understand savings and loans? (=1 Yes; =0 No)
Agent	Do you know what a MultiRed Agent is? (=1 Yes; =0 No)
Interest rates	Suppose Bank A offers a savings account with an annual interest rate of 15% while Bank B offers an interest rate of 18%. Which bank do you think is better for saving? (=1 Bank A; =0 Bank B)
Overall knowledge	Share correct = Sum of correct answers to knowledge questions divided by the number of questions (4)

Appendix Table A2: Comparison of Full Sample with Analysis Sample

Variables	Analysis Sample			Sample Excluded			Difference in Means	P-Value
	Mean	SD	N	Mean	SD	N		
Age	40.31	10.11	3069	40.91	11.43	887	-0.60	0.14
Female	0.97	0.18	3069	0.95	0.22	887	0.02	0.04
Household size	4.80	1.60	3069	4.83	1.92	887	-0.03	0.68
Years of schooling	5.90	4.10	3068	6.13	4.18	887	-0.22	0.29
Preferred language	0.19	0.39	3069	0.19	0.39	887	-0.01	0.70
Work on farm	0.65	0.48	2822	0.63	0.48	824	0.02	0.31
Own farm	0.12	0.32	2822	0.09	0.29	824	0.02	0.08
Own home	0.81	0.40	3069	0.81	0.39	886	0.00	0.86
Have other bank accounts	0.04	0.19	3069	0.03	0.18	887	0.00	0.62
Participate in a ROSCA	0.03	0.17	3034	0.03	0.16	873	0.00	0.71

Note: This table is based on 2016 household survey data.

Appendix Table A3: The Effect of Treatment on Trust and Knowledge

Panel A: Trust

	Trust bank	Trust bank staff	Trust bank branch	Bank vs home	Bank vs livestock	Overall trust
ITT: OLS $\hat{\beta}$	0.133	0.045	0.078	0.141	0.12	0.101
Standard error	(0.028)	(0.021)	(0.019)	(0.032)	(0.032)	(0.021)
P Value	[0.000]	[0.037]	[0.000]	[0.000]	[0.000]	[0.000]
LATE: TSLS $\hat{\beta}$	0.193	0.065	0.111	0.206	0.175	0.145
Standard error	(0.041)	(0.030)	(0.029)	(0.052)	(0.051)	(0.032)
P Value	[0.000]	[0.034]	[0.000]	[0.000]	[0.001]	[0.000]
First-stage *F*-statistic	2968	2968	1977	2720	2752	1774
Mean control group	0.48	0.36	0.78	0.46	0.29	0.49
Observations	3,187	3,187	2,060	3,021	2,979	1,866

Panel B: Knowledge/Financial literacy

	Savings account	Agent	Savings/Loans	Interest rates	Overall knowledge
ITT: OLS $\hat{\beta}$	0.009	-0.005	-0.005	0.024	0.002
Standard error	(0.034)	(0.004)	(0.030)	(0.017)	(0.014)
P Value	[0.777]	[0.232]	[0.878]	[0.163]	[0.905]
LATE: TSLS $\hat{\beta}$	0.014	-0.007	-0.007	0.035	0.002
Standard error	(0.048)	(0.006)	(0.043)	(0.025)	(0.020)
P Value	[0.777]	[0.248]	[0.877]	[0.168]	[0.905]
First-stage *F*-statistic	1723	2968	2199	2674	1304
Mean control group	0.74	0.99	0.32	0.85	0.75
Observations	1,828	3,187	2,223	2,894	1,432

Note: This table shows the results of the estimation of equation (1) using the 2016 survey data. Clustered standard errors are given in parentheses (village) and p-values in brackets. For Bonferroni corrected p-value, we contrast the p-value against 0.02 for a significance level of 0.1. The exact quesionts used to measure the trust and knowledge/financial literacy outcomes are presented in Appendix Table A1

Appendix Table A4: The Effect of Financial Trust Workshops on Transactions and Savings

	Bimester since treatment				
	K = 0	K = 1	K = 2	K = 3	K = 4
Number of Transactions (Deposits + Withdrawals)					
ITT: OLS $\hat{\beta}_k$	0.040	0.042	-0.019	-0.006	-0.098
Standard error	(0.019)	(0.067)	(0.034)	(0.040)	(0.048)
LATE: TSLS $\hat{\beta}_k$	0.053	0.055	-0.016	0.002	-0.102
Standard error	(0.028)	(0.089)	(0.043)	(0.053)	(0.061)
First-stage F-statistic	293.36	303.14	279.49	255.8	168.62
Savings					
ITT: OLS $\hat{\beta}_k$	2.958	5.793	7.495	7.15	10.85
Standard error	(1.928)	(2.252)	(2.806)	(3.188)	(3.601)
LATE: TSLS $\widehat{\beta}_k$	4.214	7.91	9.432	9.282	13.43
Standard error	(2.579)	(2.974)	(3.515)	(3.989)	(4.456)
First-stage F-statistic	294.7	303.17	286.16	234.88	200.14
Individuals	3,187	3,187	3,187	3,187	3,187
Observations	18,754	18,754	18,754	18,754	18,754

Note: This table shows the results of the estimation of equation (2). Calendar time and individual fixed effects are included but not reported. Clustered standard errors are reported in parentheses (village).