Savings Accounts to Borrow Less

Experimental Evidence from Chile*

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Abstract

Poverty is often characterized not only by low and unstable income, but also by heavy debt burdens. In a randomized field experiment with over 3,500 low-income micro-entrepreneurs in Chile, we find that providing access to free savings accounts decreases participants' short-term debt. In addition, participants who experience an economic shock have less need to reduce consumption, and subjective well-being improves significantly. Precautionary savings and credit therefore act as substitutes in providing self-insurance, and participants prefer borrowing less when a free formal savings account is available. Take-up patterns suggest that requests by others for participants to share their resources may be a key obstacle to saving.

JEL classification: D14, D91, G21, O16

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1 Introduction

The lives of the poor are marked not only by low income, but also by frequent fluctuations and costly debt (Deaton, 1997; Banerjee and Duflo, 2007; Collins et al., 2009; Barr, 2012). The question arises whether using debt is their preferred mechanism to deal with economic shocks. As many poverty-alleviation policies have focused on reducing credit constraints, concerns have increasingly been voiced about potential overborrowing by the poor (e.g., Roodman, 2012; Fafchamps, 2013; Schicks, 2013; Angelucci et al., 2015).

A longstanding literature on consumption smoothing analyzes how savings and borrowing interact as substitutes to deal with economic shocks. Much of the focus has been on the constraints on the credit side, analyzing how they increase the need to build a buffer stock for self-insurance (e.g., Deaton, 1991; Rosenzweig and Wolpin, 1993; Besley, 1995). This paper analyzes the opposite mechanism: how reducing savings constraints can facilitate precautionary savings as a substitute for costly debt.

In a randomized field experiment among over 3,500 low-income members of a microfinance institution in Chile, we find that access to a savings account can act as a substitute for emergency credit, leading to lower short-term debt, fewer consumption cutbacks in times of economic shocks and higher subjective welfare. The likelihood of having short-term debt falls by 13% and the amount by 20% (winsorized at the 5% level), mainly driven by debt to family and friends.[1] The need to reduce consumption in times of economic shocks falls by 43%.[2] The improvements correspond to the types of expenditures for which participants expressed desire to build a buffer stock, and their magnitudes are in line with the 56,700 Chilean pesos (about 113 USD) in average deposits made by those who took up the account.[3]

These findings suggest that savings and credit are used as substitutes to each other for consumption smoothing. As the cost of using savings is reduced, demand for short-term credit decreases and overall consumption smoothing increases. While participants' probability of having savings increases, the total financial savings net of borrowing and lending do not

change significantly and gross total savings even decrease in some specifications, consistent with participants actively using savings to reduce borrowing and smooth consumption.

Participants also experience substantial improvements in subjective well-being, both backward-looking – less severe recent economic difficulties – and forward-looking – less anxiety about their financial future. The magnitudes are large and correspond to about half or more of the change in these well-being measures associated with a job loss or severe business downturn. This suggests that the original savings constraints alleviated by the intervention were substantial and costly for participants' well-being.

Take-up patterns are informative about obstacles to savings prior to the intervention. They suggest that other-control problems are significant.[4] Take-up is particularly high among participants who are not head of their household, who have conflicts with their partner over money, and (in line with findings by Dupas and Robinson, 2013b) those who are lending to their social network but do not borrow from it themselves. Consistent with Ashraf et al. (2006b), take-up is also substantially higher for those with hyperbolic time preferences, which may lead to both increased self- and other-control problems.

Finally, another innovation of this paper consists of two survey questions specifically designed to help rule out demand effects. The survey includes one question in the beginning and another in the end, for which one would expect large demand effects if respondents want to please interviewers or the microfinance association.[5] Treatment has no impact on these questions.

This paper makes contributions to the literature on savings in several ways. First, it is, to our knowledge, one of the few papers to provide micro-empirical evidence that reducing barriers to savings can reduce reliance on debt.[6] The literature on precautionary savings has long acknowledged that saving and borrowing can be substitutes to help individuals smooth consumption. In principle, credit is simply a form of negative savings. The focus has primarily been on constraints on the credit side and the resulting need to build a buffer

stock for self-insurance.[7] One exception is Bauer et al. (2012) who argue that when there are savings constraints due to limited commitment devices, microcredit may be used as a substitute. Another strand has focused on the issue of households saving and borrowing simultaneously, due, for example, to differences in liquidity or as a commitment device (e.g. Morduch, 2010; Basu, 2016; Afzal et al., 2018, 2019).

We test whether limited accessibility to savings accounts leads to savings constraints that are binding enough to push participants to borrow more than they otherwise would and to affect participants' economic well-being. Even though building a buffer stock requires reducing consumption in the short-run, participants seem to prefer this form of smoothing to the measures that they were using beforehand, suggesting that these measures were relatively costly. In this way, the savings accounts have similar impacts to insurance. This relates to findings that access to health insurance can reduce people's indebtedness both in developing countries (e.g. Aggarwal, 2010; Yilma et al., 2015; Levine et al., 2016) and in the United States (Gross and Notowidigdo, 2011; Finkelstein et al., 2012; Mazumder and Miller, 2016).

Second, our findings contribute to a rapidly growing literature showing benefits of facilitating savings on a variety of outcomes such as poverty reduction (Burgess and Pande, 2005; Fulford, 2013), investment and income (Brune et al., 2016; Dupas and Robinson, 2013a; Prina, 2015), female intra-household bargaining power (Ashraf et al., 2010), and subjective well-being (Bastian et al., 2018). This paper is one of the first to provide direct evidence that access to a liquid savings account can help individuals improve consumption smoothing in the face of economic shocks (together with Somville and Vandewalle (2019), who subsequently also found that access to formal savings accounts in rural India increased consumption smoothing).[8] This literature suggests that mechanisms aimed at helping people increase their savings (such as those studied by Ashraf et al., 2006a,b; Brune et al., 2016; Atkinson et al., 2013; Dupas and Robinson, 2013b; Pomeranz, 2014; Schaner, 2015; Jack and Habyarimana, 2018; Kast et al., 2018) can be very beneficial. At the same time, several commitment devices that have been found to help individuals in developing countries increase

their savings are withdrawal commitment devices, which limit liquidity. In order for savings to serve a precautionary purpose, liquidity is important. As discussed in the conclusion, our results suggest that a trade-off may exist between benefits of withdrawal commitment devices and the ability to use savings for consumption smoothing.[9]

Third, our findings add to the literature on subjective well-being (e.g., Haushofer and Fehr, 2014; Campante and Yanagizawa-Drott, 2015; Aghion et al., 2016; Haushofer et al., 2020) and its relationship with poverty. They suggest that in addition to levels of income and poverty, their variance and the risk to which people are exposed may play an important role for subjective well-being. The poor often experience great worry and anxiety about their economic future (e.g., Collins et al., 2009; Chemin et al., 2013). While such worry is an important issue in itself, it can also have negative feedback effects on economic decision-making, and potentially lead to poverty traps (e.g., Shah et al., 2012; Haushofer and Fehr, 2014). At low levels of income, mechanisms to smooth consumption are particularly important since economic shocks can have devastating effects as resources fall below what is needed for basic needs (e.g., Townsend, 1994; Morduch, 1995). At the same time, the poor are often faced with highly variable income and expenditure patterns (e.g., Townsend, 1995; Deaton, 1997; Fafchamps and Lund, 2003; Banerjee and Duflo, 2007; Munshi and Rosenzweig, 2009) and have limited formal insurance (e.g., Jacoby and Skoufias, 1997; Banerjee and Duflo, 2007; Giné and Yang, 2009; Giné et al., 2012; Cole et al., 2013; Cai et al., 2015). Being dependent on a social network for insurance can also be psychologically or practically costly (Dezső and Loewenstein, 2012; Jakiela and Ozier, 2016). All these factors may contribute to our finding of large improvements in participants' assessment of their recent economic difficulties and anxiety about their financial future.

Finally, this paper provides evidence for a growing body of research on how savings interact with social networks. Peers and the social environment can make it either harder for individuals to save (due, for example, to pressure to share resources, as in Alger and Weibull, 2008; Baland et al., 2011; Brune et al., 2016; Schaner, 2017) or easier (for example as

a commitment device, as in Kast et al., 2018; Breza and Chandrasekhar, 2019). At the same time, access to savings can in turn affect participants' financial relationship to others in their network (Ligon et al., 2000; Platteau, 2000; Di Falco and Bulte, 2011; Hoff and Sen, 2011; Flory, 2018; Comola and Prina, 2020). We find evidence for both directions. Participants who are subject to more other-control problems are more likely to take up the account, and access to the account in turn reduces lending to others among those who initially regretted not having saved more. When thinking about savings policies, it is therefore important to consider possible interactions with the social environment.

The remainder of the paper is organized as follows: Section 2 provides information about the background, data and study design, Section 3 discusses results, robustness checks, and determinants of take-up and Section 4 concludes.

2 Background, Data and Study Design

2.1 Background and Implementation

The study was conducted in collaboration with Fondo Esperanza (FE), a Chilean microfinance institution, and Banco Credichile (BC), a large commercial bank. The savings accounts that were offered to FE's members as part of the intervention were held with BC because FE is not legally licensed to hold savings deposits. FE's members are self-employed micro-entrepreneurs (e.g., street vendors or cosmetics saleswomen), many of whom work in the informal sector. About 91% are women, and most live and work in urban areas. FE provides micro-loans to its members in three-month cycles, repayment of which is monitored in weekly or biweekly group meetings.

FE's credit disbursement and repayment is on a very rigid schedule, and consequently cannot be used as insurance for emergencies or for unexpected income or expenditure shocks, similar to other micro-credit arrangements (Karlan and Mullainathan, 2010). With FE, early

repayments of loans was not possible, and FE did not provide any emergency loans either, so the loan structures were on a pre-determined schedule.[10] Given the rigidity in the timing of the loans, it is not surprising that in focus groups conducted prior to the intervention, many members expressed the desire to increase their liquid savings to build a buffer stock for unexpected shocks and emergencies.[11] Participants emphasized several constraints to their current ability to save. First, monetary costs of bank accounts were a major obstacle and participants mentioned the need for cost-free accounts. Due to the fee structure of the accounts that were generally available at that time, accounts with small balances often faced potentially large negative returns. The concern with the fixed costs of formal savings is in line with findings by Cole et al. (2011) in Indonesia and Dupas et al. (2014) in Western Kenya. In addition to the financial costs, mental transaction costs also seemed to contribute to the savings constraints. Many expressed concerns about feeling intimidated to go into a bank or not knowing what would be required to be eligible to open an account.

This population is of particular interest to study whether increasing access to a formal savings vehicle reduces borrowing, since it has sometimes been questioned whether micro-credit makes participants borrow too much, and whether it might be in their interest to build up savings instead, in order to reduce the need for credit (e.g., Ananth et al., 2007). If participants continue borrowing, large amounts of savings would be suboptimal, as they continue paying expensive interest rates that they could reduce by paying down the debt. However, some amount of precautionary savings is valuable at any level of debt because of the difference in liquidity of savings and loans (Zinman, 2007). If the debt cannot be taken out flexibly, then having a small savings cushion for emergencies can make an important difference in reducing the pressure of economic fluctuations. This is particularly the case for a population such as the participants in this study, who work predominantly in the informal sector and experience frequent income and expenditure shocks.

Prior to the intervention, a baseline survey was conducted among 307 groups of FE's members. The universe of study participants consists of all members who were present in the

meeting when the baseline survey was administered. Compared to the general population in Chile, the study participants have lower socio-economic status on average, but are not among the poorest. The mean monthly household income in our sample of around 330,000 Chilean pesos corresponds to the third decile of the Chilean income distribution at the time (Gerencia de Investigación Financiera, 2013).[12] They also differ from many of the most vulnerable citizens in that they own a micro-business and are accustomed to regular payments as part of their participation in the micro-credit organization.

Two-thirds of the groups were randomly selected to be offered a free savings account while the control group was not eligible for this type of savings account. All members of each group received the same treatment, such that participants in the control group were not affected indirectly by the treatment through spillover effects within the FE group. The opportunity to open a savings account was introduced during group meetings in the weeks following the baseline survey. The accounts were set up in a way to minimize both financial and mental transaction costs. In contrast to other savings accounts available in the market at the time, the study accounts had no maintenance fees and no minimum balance. The minimum opening deposit was only 1,000 Chilean pesos (about 2 USD).[13] Take-up of the account was completely voluntary. In order to overcome the frequently expressed sentiment of feeling intimidated to enter a bank, interested participants were offered an opportunity to go to the bank together with their peers to open an account and were informed precisely which documents were required to open the account.[14] Savings in the accounts were fully financially liquid for withdrawal at the bank's branches at any time.

The intervention had three sub-treatments. The basic accounts had a standard real interest rate of 0.3%. A subgroup of one quarter of treated groups was randomly assigned to receive a preferential interest rate of 5%, and in another half of the treated groups, self-control problems were additionally reduced through a peer group commitment mechanism. These conditions were guaranteed for a minimum of two years. Kast et al. (2018) study the differential savings behavior resulting from these different sub-treatments.[15] The 5%

interest rate did not affect savings for the vast majority of participants, while the peer group commitment device significantly increased the number of deposits and almost doubled the average balance in the accounts. Section 3.3 therefore analyzes whether there are differential effects for those who had additional support through the peer group deposit commitment device. However, due to limited sample size in each of the sub-treatments, this analysis has much lower statistical power. The main analysis of the paper focuses on the overall impact of reducing barriers to saving through access to any of the savings accounts.

2.2 Data and Empirical Strategy

This study draws on three different sources of data. All outcome variables, as well as most personal characteristics, were obtained through extensive baseline and follow-up surveys. The baseline survey was conducted prior to the introduction of the savings accounts in April-May 2008 during one of the group meetings. The follow-up survey was administered in June-July 2009 at participants' home or work place so that those who had left FE in the meantime could still be reached. The surveys include detailed questions about participants' savings and debt, their economic situation, recent consumption patterns, as well as subjective measures such as participants' anxiety about their financial future, assessment of their recent economic difficulties, regret about not having saved more, and time preferences.

The questionnaires were administered by the independent survey agency, Centro de Microdatos at the University of Chile. While participants were aware that the survey was related to their membership with FE, they had no way of knowing that it was related to the savings accounts. As discussed below in Section 3.3, the survey also included two questions specifically designed to test for demand effects to rule out the possibility that receiving access to a savings account through FE affects participants' propensity to respond to survey questions in a favorable or socially expected way.

We complement this survey data with two sources of administrative records. Information

on savings in the study accounts was obtained directly from BC. Finally, we used FE's administrative files to obtain information on each participant's estimated household size, household income, and years of education.

To analyze the effect of having a savings account on various outcomes of interest, we estimate a simple difference-in-difference specification with fixed effects, comparing those in the treatment group to those in the control group at the time of the baseline and follow-up survey:[16]

$$Y_{it} = \alpha + \beta Account_i \times Post_t + \gamma_t + \delta_i + \epsilon_{it}, \quad (1)$$

where Y_{it} is the outcome variable of interest, $Account_i$ is a dummy variable that equals 1 if individual i is in the treatment group. γ_t represents time fixed effects, δ_i represents individual fixed effects and ϵ_{it} is the error term. All standard errors are clustered at the group level (i.e. the level of randomization).

We also estimate an ANCOVA specification as follows:

$$Y_i = \alpha + \beta Account_i + \gamma Y_{iPRE} + \delta Stratum_i + \epsilon_i, \quad (2)$$

where Y_i is the outcome variable of interest at endline, $Account_i$ is a dummy variable that equals 1 if individual i is in the treatment group, and Y_{iPRE} is the outcome variable of interest at baseline. $Stratum_i$ controls for randomization strata. Each stratum corresponds to a group supervisor of the microfinance organization. ϵ_i is the error term. All standard errors are clustered at the group level (i.e. the level of randomization). Results from this specification are reported in Appendix tables.

This analysis provides the Intent-to-Treat (ITT) effects of the intervention. We do not calculate the Treatment-on-the-Treated (TOT) effects, since opening an account can have potential spillover effects on other members of the group who do not take up the account.

The ITT specification incorporates such potential spillover effects. Assuming spillovers are zero and given that the active take-up rate is 39% (as discussed below), the TOT effect would be a little under triple the size of the ITT effect.[17]

To capture participants' short-term borrowing and lending behavior, we asked them a series of detailed survey questions on whether they had lent to or borrowed from a particular category of person or institution (such as a parent, neighbor, supplier, etc.) and if so how much. We have grouped the many categories of short-term borrowing into three main components: (1) borrowing from family and friends, (2) debt to service providers and utilities, and (3) borrowing from business contacts and short-term lending institutions. Similarly, we grouped short-term lending by participants into two main components: (1) lending to family and friends, and (2) lending to business contacts.[18] As outcome variables we use amounts of short-term borrowing and short-term lending and their main components, as well as the count of the number of categories of short-term borrowing or short-term lending that participants had.

Many topics in our analysis are addressed by a series of related questions (e.g., cutback of a number of consumption items, forward-looking and backward-looking subjective well-being, etc.). To assess the overall statistical significance of such related outcome variables, we report the average effect size (AES), using the methodology in Kling et al. (2007) and Clingingsmith et al. (2009). The AES of each grouping of outcome variables serves as an index of the underlying individual treatment effects. It is calculated using the average of the normalized treatment effects from each of the underlying regressions. Looking at the overall AES reduces the risk of falsely accepting individual treatment effects that are significant only by chance.

2.3 Balance of Randomization and Baseline Summary Statistics

Table 1 presents baseline summary statistics. Columns (1) and (2) include the full sample and show that characteristics in the treatment group are not statistically significantly different

from the control group. Participants are on average 43 years old and have 10 years of schooling. The average household size is 4.3 and mean monthly income per capita in the household is 80,000 Chilean pesos (about 160 USD), with a median of 66,000.[19] Sixty-eight percent of participants did not have a savings account prior to the study. Participants' saving, borrowing and lending behavior is captured by two types of measures: the amount and the number of distinct categories. The latter is less noisy and captures the extensive margins of categories of people and institutions that the financial transactions happen with, such as parents, neighbors, business partners, financial institutions, etc.[20]

The median amount of pre-existing total financial savings in the control group is 80,000 pesos (shown in the table in brackets), with a mean of 189,000 pesos (177,000 when winsorized at the top 5%) in 1.63 different categories on average. While income is reported in per capita terms, these figures may represent the savings of several household members combined, especially those of participants' children. Participants in the control group have an average of 119,000 pesos in outstanding short-term debt (65,000 when winsorized at the top 5%) and owe money to an average of 0.91 categories of short-term creditors. The average amount of lending is 97,000 pesos (69,000 when winsorized at the top 5%) and this is lent to an average of 1.07 categories.

To measure consumption smoothing, we develop a new approach. Rather than eliciting detailed consumption data, which is complex to capture and often provides quite noisy measures, we asked participants directly whether they had to cut back consumption on a series of specific items due to economic difficulties in the preceding three months.[21] This approach follows the same logic as de Mel et al. (2009), who find that small business owners are capable of reporting their overall profits directly with just as much or better accuracy than surveys that elicit detailed cost and revenue data. In our sample, 70% of participants reported having had to reduce at least one of the consumption items. We validate this new measure by testing whether it correlates in the predicted way with participants' personal economic situation. Indeed, we find that those who experienced a job loss in the household

or a significant downturn of their business in the preceding three months reported cutting back consumption in 53% more categories than those who did not.

While this measure captures only the variance of consumption, rather than the level, it has several advantages compared to alternative approaches that measure overall consumption and then deduce consumption cutbacks from there. It does not require participants to recall the specific amounts consumed, which can be quite unreliable (Ahmed et al., 2006), nor to fill out detailed consumption diaries. This allows the survey to be shorter, thereby increasing the quality of response on other sections of the survey, as participants are less fatigued (see e.g., Herzog and Bachman, 1981; Galesic and Bosnjak, 2009). At the same time, it also avoids any potential direct effects of keeping a consumption diary on the behavior or perception of participants (for examples of such effects see e.g., Deaton, 1997 and Zwane et al., 2011).

With respect to measures of self-reported well-being, the survey includes one forward-looking and one backward-looking question. The forward-looking question asked participants if they were anxious about their financial future. The mean response at baseline in the control group was 2.9 on a scale of 1 to 4, where 1 means strongly agree and 4 means strongly disagree. The backward-looking measure was asked after the specific questions about participants' recent economic shocks, consumption, etc., in order to allow participants to recall and evaluate their recent economic situation more accurately. The question on recent economic difficulties asks, "In sum, thinking about all the economic difficulties of the last three months, on a scale of one to ten, how difficult was this situation for you?" The mean answer was 5.0 on a range of 1 to 10.

In terms of attitudes and household dynamics, before the intervention two thirds of participants said that they always or frequently regretted not having saved more in the previous three months. Twenty six percent were socially taxed, defined - following Dupas and Robinson (2013b) - as having lent to family or friends but not having received any such loans themselves). A bit more than a third of participants reported having had conflicts

with their partner about money in the three preceding months.

[Table 1]

In the follow-up survey, conducted one year after the introduction of the accounts, 593 (14.2 percent) of the original 4,175 participants from the baseline could not be found by the survey agency. For these participants, no outcome variables are available, and they could therefore not be included in the impact evaluation. All final outcomes reported in this paper therefore exclude these 593 individuals. Columns (3) and (4) of Table 1 show the baseline summary statistics for this estimation sample. Similar to the full sample, none of the characteristics are significantly different between the treatment and control groups. However, attrition is 2.9 percentage points higher in the treatment group and attritors and non-attritors differ along several characteristics (shown in Columns (5) and (6)). Attritors are on average 1.2 years younger and have 0.15 fewer household members. Overall, the F-test for joint significance between attritors and non-attritors has a p-value of 0.08. Section 3.3 discusses attrition in more detail and provides robustness checks to address it.

3 Results

3.1 Impact of Access to a Savings Account

Account Usage

Take-up of the account was voluntary. Table A3 shows that 53% of eligible participants opened an account and 39% actively used it.[22] An active user is defined as someone who deposited more than the 1,000 pesos minimum opening amount. Following Dupas et al. (2014), we use active use as our take-up measure. Section 3.2 discusses determinants of take-up and what they suggest about underlying barriers to saving.

Among those who actively used the account, the mean number of deposits over the course of a year was 2.8 and the median was 1. They deposited an average of 56,700 pesos in total (about 113 USD) with a median of 4,000 pesos. The mean number of withdrawals was 1 and the total amount withdrawn was 47,500 (about 95 USD) on average. Over the year of the study, participants held a mean monthly savings balance of around 18,300 Chilean pesos (about 37 USD). This balance amount represents about 23% of monthly income and corresponds in size to the type of expenditures for which participants had expressed wanting to build a buffer, such as unexpected doctor's visits and payments for heating, electricity or food during periods of short-term income fluctuation.

While the total amounts may seem relatively small, those amounts can make a substantial difference. In focus group conversations, Fondo Esperanza clients shared that they often regret not saving more, because the lack of savings prevents them from being able to cover small but important expenses, which creates significant hardship. A ticket for public transportation, for example, costs the equivalent of around 1 USD. Participants recounted how they had to walk an hour or two each way to work when an unexpected urgent expense arose and they therefore did not have enough money left for transportation, as they had not accumulated a buffer of savings.

Borrowing

We first analyze the impact of access to a savings account on the use of short-term credit. If savings were to have a precautionary purpose, as participants had stated in the focus groups, having more savings could reduce the need for short-term debt to cope with economic fluctuations.

[Table 2]

Table 2 shows the impact on short-term borrowing overall and for three different components of short-term borrowing: debt owed to family and friends, to service providers, and

to business contacts and institutions. Results are presented in three different specifications: probability of any borrowing, amounts winsorized at 5%, as well as the inverse hyperbolic sine.

Panel A shows that the probability of any borrowing reduced by 4.7 percentage points, significant at 10% level, which represents a 13% reduction from the control group mean.[23] Looking at the three components of borrowing, we see that the largest decrease stems from informal borrowing from family and friends, which is reduced by 6.3 percentage points, significant at 1% level. This effect corresponds to a 36% reduction compared to the control group mean in the post-treatment period. Among the specific categories within family and friends, probability of borrowing from parents, who are the most frequent category participants borrowed from within family and friends, was reduced the most, significant at the 1% level. The probability of borrowing from service providers declines by 3.4 percentage points, however it is not significant in this specification.

Panel B of Table 2 shows the effect in levels, winsorized at the top 5%. The amount of outstanding short-term debt declines by 12,163 pesos, significant at the 5% level. This represents a reduction of about 20% compared to the post-intervention mean in the control group. Looking at what type of short-term debt is reduced, we see the strongest reduction in the amount owed to family and friends with 6,360 pesos, significant at the 1% level. This represents around a 39% reduction compared to the post-intervention control group mean. Within family and friends, the reduction is strongest for parents. There is no significant effect for service providers or business contacts and institutions. The point estimate for the inverse hyperbolic sine of amounts (Panel C) goes in the same direction, but is less statistically significant.[24] The reduction in overall short-term borrowing is not significant while the reduction in borrowing from family and friends is significant at the 1% level.

These results showing particularly large reductions in borrowing from family and friends are in line with recent work on the pecking order of debt. It supports the idea that people

prefer to use their savings to deal with income shocks, and then borrow from family and friends. Evidence from Dupas et al. (2017) shows that access to savings accounts can decrease financial reliance on the family and Lusardi et al. (2011) finds that people draw from savings even at the expense of forgoing interest payments because of lower direct financial costs, transaction costs, social costs, and private effort. This ties in with our findings that the greatest impact is on borrowing from friends and family, which shows a statistically significant decrease across all specifications in Tables 2 and A4.

In addition to the analysis of short-term borrowing, we also look at longer-term debt in the form of mortgages, loans with FE, formal bank loans, etc. Consistent with the role of savings as a substitute for short-term term borrowing for self-insurance, we find no statistically significant impact on long-term borrowing. Appendix Table A6 shows that point estimates of the impact on long-term borrowing are close to zero (0.0007) on both the extensive margin and on categories of borrowing and 3 times smaller than for short-term borrowing in the IHS specification. The estimate of the impact on amounts of long-term borrowing in levels is similar in magnitude to that of short-term borrowing, but much noisier and from a higher baseline, and therefore not statistically significant.

Consumption Smoothing

The preceding results showed that participants substitute credit with savings and significantly reduce their use of short-term borrowing when given access to a savings account. If savings and credit are substitute mechanisms for consumption smoothing, the question arises of whether relaxing the savings constraint mainly leads to a replacement of credit by savings, or whether overall smoothing is increased in addition. It is conceivable that participants' main response to access to the savings accounts is to substitute to a different means of smoothing, while maintaining their overall level of smoothing. This section analyzes how the intervention affects participants' ability to smooth consumption during times of economic shocks to their income.

As discussed in Section 2.3 above, our measure of consumption smoothing asks participants directly, whether they had to cut back various forms of consumption due to hard times in the preceding three months. Overall in this population, the need to reduce consumption due to economic difficulty is quite frequent. In the baseline, 70% of participants reported having to cut back on at least one of the consumption items in the pre-treatment period. For the individual items, this frequency ranges from 9% to 52%, with the largest proportion of participants reducing clothing, eating out and meat consumption. To establish which participants were affected by a shock to their income, we asked whether they had experienced a job loss in the household or a significant business downturn. Forty percent of participants experienced at least one such shock in the three months preceding the follow-up survey. Before we estimate the effect on participants' ability to smooth shocks, we need to first check that the treatment did not affect the probability of experiencing economic shocks. Using the same specification as in our other impact estimates, we find that there is in fact no such impact. The effect on the probability of experiencing a shock is -0.03 from a baseline mean of 0.36 with a p-value of 0.18 (see Table A7).

Table 3 shows the need to reduce consumption among participants who experienced an economic shock in the three months preceding the follow-up survey, and how this was affected by the treatment.

[Table 3]

For participants in the treatment group, the need to reduce consumption in the face of economic shocks falls in each of the individual categories listed in Columns (1) through (8). The effect is particularly large for reducing meat consumption and for walking instead of using public transportation, where we see a decline of 9 and 10 percentage points respectively, significant at the 5% level.[25] In terms of percentage change relative to the control group mean, this represents a decline of 16% and 22% respectively. The reduction in cutback due to economic difficulties is also statistically significant for school snacks (4.3 percentage

points). For the remaining items (skipping meals, medicine, school supplies, clothing and eating out), the point estimates are also negative but not statistically significant. Overall, the AES of consumption cutbacks in times of an economic shock is -0.111 standard deviations, significant at the 5% level.[26] Therefore, relatively small buffer stock amounts seem to have a significant impact in helping participants cope with income fluctuations.

Quantitatively, these effects are substantial. Using a triple difference specification, shown in Table A10, we find that for participants who were offered an account, the overall increase in consumption cutbacks associated with an income shock (measured as the number of items for which consumption had to be reduced) was mitigated by almost half. In the treatment group, a negative income shock in the post-treatment period was associated with a 0.50 item increase in cutbacks, compared to a 0.87 item increase in the control group (difference statistically significant at the 10% level). Overall, these findings show that access to the savings accounts helped participants substantially to better smooth their consumption following an income shock.

Lending

Having seen that participants reduce their short-term borrowing and improve their consumption smoothing, the question arises whether participants with access to a savings account become less generous in providing loans to their social network. This may be the case if they now depend less on loans from their network for insurance purposes. In addition, savings accounts may allow individuals to shield their savings from requests of others to share. On the other hand, having a buffer stock may allow individuals to help their social network with a loan in times of need. The evidence on this issue is quite mixed. Chandrasekhar et al. (2018) find a reduction in interpersonal transfers when savings are available in a lab experiment in India. However, in his study in Malawi, Flory (2018) finds that having a savings account increases participants' cash gifts to others.[27]

[Table 4]

Table 4 displays the impact on lending to others. When looking at all participants jointly, the point estimates are negative but mostly not statistically significant, both in terms of total lending (Column 1) and when separating the amounts lent to family and friends or to business contacts (Columns 2 and 3). Columns (4) - (6) show, however, that there is a clear difference in the response between the 69% who indicated in the baseline survey that they always or frequently regret not having saved more and those who did not.[28] This heterogeneity in the treatment effect seems to result from an increase in lending (not statistically significant) by those who did not express savings regrets at baseline and a decrease (statistically significant in all three specifications of Columns 3 and 4) by those who did express such regrets. Separating the impact on lending to family and friends versus business contacts, most of the effect seems to be concentrated among the former (Column 5). These results are similar to the reduction in borrowing, which are also strongest for family and friends. However, since we did not start the analysis with a hypothesis for the subgroup that regretted not having saved more in mind, further research is required to investigate whether this differential effect is robust to replication.

Saving

If participants reduce their borrowing and increase their consumption smoothing, the question arises where the money is coming from. Do participants actually increase their savings, or do they use them to such a degree that their overall balance does not grow?

[Table 5]

Table 5 shows the impact of access to the savings account on total financial savings in Panel A, net total financial savings (total financial savings minus total financial debt[29]) in Panel B, and net total financial assets including lending (total financial savings minus total financial debt plus total loans given out) in Panel C.[30]

Interestingly, while the extensive margin of savings increases, results on the intensive margin are more mixed. The probability of having any savings (Column 1) increases significantly for all financial savings outcomes (by 12 percentage points in Panel A, 8 percentage points in Panel B and 6 percentage points in Panel C). The inverse hyperbolic sine (Column 3) also increases for all financial savings outcome. It is statistically significant for total financial savings and net total financial savings, but not for total financial assets (i.e. when taking lending into account). However, the increase in the amounts of savings in levels (Column 2) is not statistically significant, and for total financial savings, it even decrease somewhat in the non-winsorized specifications, (Appendix Table A13), these negative effects are even more pronounced. This points to an increase for the lower amounts, but a decrease for the largest amounts.

One potential explanation for the decrease in the largest amounts of reported total savings could be that the very large reported numbers do not correspond to true savings, but are guesstimates (and potential overestimates) of participants who are not fully aware of their precise amounts of savings. If access to the savings account leads participants to become more aware of the specific amounts in their different forms of savings, this may then lead to a reduction in reported total savings, as they become less likely to report an exaggerated ballpark figure.

One symptom of guesstimating could be the use of very round numbers. We investigate this hypothesis by analyzing the extent to which respondents report large round numbers across their different forms of savings. Appendix Table A16 shows the treatment effect on the probability of reporting a savings amount outside the study account that is an exact multiple of 10,000 pesos. Consistent with the hypothesis, we indeed see a substantial reduction in the reporting of such amounts among the treatment group.

As would be expected under the mechanism described above, this is particularly the case among participants with the largest reported amounts at baseline. For participants who

reported baseline savings above the median, treatment reduced the probability of reporting round numbers by 5.4 percentage points. This effect is -7.7 percentage points for those above the 75th percentile, -16.3 for those above the 90th percentile and -26.8 for those above the 95th. Importantly, there is no similar systematic decrease in the probability of reporting round borrowing amounts.

Overall, the results on financial savings results suggest that while participants are more likely to have savings, they seem to use the new form of savings to substitute for short-term debt and to smooth consumption, such that the mean of total financial savings even decreases. This leaves them with higher net financial savings in the IHS specification, but no significant impact on levels, which give comparatively more importance than the IHS to larger amounts. The combined metric of liquid financial assets, total financial savings net of borrowing and lending, remains relatively unchanged. These results are consistent with savings for precautionary purposes to smooth over short-term income and expenditure shocks, which are common for many developing economies, rather than saving for long-term goals such as retirement purposes.

Subjective Well-Being

We have seen that participants in the treatment group reduce their short-term borrowing and are better able to smooth consumption over economic shocks. One way to assess the overall impact on peoples' economic lives is to analyze subjective measures of economic well-being.

Both reduced indebtedness and improved consumption smoothing can potentially improve participants' perceived economic well-being and anxiety about their financial future (Haushofer et al., 2020). Beyond the tangible challenges of limited consumption, worry and anxiety about one's economic situation is one of the difficult characteristics that mark the lives of many of the poor. Qualitative and correlational evidence suggests that debt can be a particular source of such mental distress (e.g., Kuruvilla and Jacob, 2007; Taylor et al.,

2007).

We assess whether participants experienced a subjective insurance effect from access to the savings account through a forward- and a backward-looking measure: participants' anxiety about their financial future and their overall assessment of recent economic difficulties (see Section 2.3 for a more detailed description of these variables).[31] Table 6 shows the impact on both of these outcomes. Since the units of measurement for anxiety and economic difficulty are not quantitatively meaningful, we normalize them to have a mean of zero and a standard deviation of one among the control group. This way, the effects are expressed in terms of standard deviations.

One year after receiving a savings account, participants in the treatment group are 0.112 standard deviations less anxious about their financial future than those in the control group and experience their overall recent economic situation as 0.086 standard deviations less difficult. (Details on the Lee bounds estimations and other robustness checks can be found in Section 3.3). The overall AES on subjective well-being is -0.101 standard deviations and significant at the 5% level.

[Table 6]

To facilitate the interpretation of the magnitude of these treatment effects, we compare them to changes in well-being associated with other economic events, such as a job loss in the household and a significant business downturn (reported in Table A18).[32] This benchmark comparison reveals that the effects are substantial. The impact of the savings account on participants' perceived recent economic difficulties is 72% as large as the change associated with a job loss and 49% as large as the change associated with a business downturn. The impact on anxiety about their financial future is 140% as large as the change in anxiety associated with a job loss in the household, and 57% as large as the change associated with a business downturn.

Overall, the analysis of the impact on subjective well-being reveals sizeable improvements in both participants' assessments of their recent economic situation, and in their outlook of the future.

Other Outcomes

There are two other groups of outcome variables that we tested, but for which we do not find statistically significant effects – household dynamics and spending on bulky expenditures, which are shown in Appendix Table A19. Money is often a major source of conflict among couples, and in other contexts, savings outside of the house have been found to play an important role as a strategy for women to hide money from their husbands (Anderson and Baland, 2002, looking at ROSCAs in Kenya) or as a means for women to improve bargaining power and control over their spending decisions (Ashraf et al., 2010, in the Philippines; Dupas and Robinson, 2013a, in Kenya). Our results, however, find no significant effect on household dynamics.[33] One reason why access to a savings account does not lead to a change in the intra-household dynamics in our study might be that, in Chile, women are traditionally in charge of household finances and savings decisions, so the introduction of the savings accounts may not have a significant impact on these power dynamics.

We also find no effects on bulky expenditures. The sub-questions in this category ask whether in the previous three months, participants spent money in any of the following categories: (1) a television, radio, or computer; (2) machinery or equipment for their business; (3) significant improvements in their home (painting, floor, roof, etc.). While the lack of effect on these bulky items might simply mean that the survey did not include the relevant items, it is consistent with the interpretation that participants mainly used their liquid savings accounts to build a buffer stock for insurance, and reserved their credit with FE for bulky expenditures and investments.

3.2 Take-up

The take-up patterns for the accounts provide interesting insights into the drivers of demand for the formal savings accounts, and suggestive results as to what the underlying savings constraints without an account may be. Table 7 shows how both demographic determinants of savings decisions (Columns 1) and other personal characteristics (Columns 2 and 3) correlate with take-up. The personal characteristics that are predictive of take-up are consistent with a situation where participants use the account in order to reduce both their self-control and other-control problems.

[Table 7]

Household dynamics that are indicative of other-control problems are predictive of take-up. Being head of the household – an indicator of having more control over intra-household resource allocation – is negatively correlated with take-up. For heads of household, take-up is 5 percentage points lower, a reduction of 11 percent compared to the overall take-up rate. Participants who are not the head of the households may be the most interested in reducing the exposure of their savings to the demands by others in the household. Relatedly, having conflicts with one's partner over monetary issues increases take-up by 5 percentage points, an increase of 11 percent. Those with more conflict might feel more of a need to put their resources out of reach of their partner.

Consistent with Dupas and Robinson (2013b), we also find that socially taxed individuals are significantly more likely to take up the accounts. We are agnostic about whether lending but not borrowing leads to a welfare loss, or whether there are positive returns or utility from lending to family and friends. However, we find that these pure lenders are 6 percentage points more likely to open and use the account, an increase of 15% percent. Separating the two components in Column (3), we find the expected sign on both dimensions. Individuals who lent money to family or friends are 4 percentage points more likely to take

up the account, and those who owe money to family or friends are 3 percentage points less likely to take up the account (not statistically significant). The positive correlation of take-up with household dynamics and lending but not borrowing is consistent with the notion that other-control problems may be an important driver of the demand for formal savings accounts.

The evidence on the role of self-control problems for take-up is mixed. Our two separate measures indicating possible self-control problems – regret about not having saved more, and hyperbolic time preferences[34] – show somewhat different results. On the one hand, hyperbolic individuals are 5 percentage points more likely to take up the savings account.[35] On the other hand, participants who indicate regretting not having saved more (and for which the analysis described above finds that they reduce lending to others in response to receiving access to the account), are not significantly more likely to open the account.

A third potential motivation for opening an account, in addition to self- and other-control problems, could be safety concerns. However, we do not find that fear of having one's savings stolen affects take-up in a significant way. With respect to the socio-demographic variables, younger people and men are less likely to take up the account. The former is consistent with statements from the focus groups that young people are more likely to rely on their parents for a financial safety cushion and may therefore not need precautionary savings as much. The latter is consistent with the social norm in Chile that women tend to be in charge of household savings. Finally, lower income is associated (statistically insignificantly) with lower take-up. This is consistent with Karlan and Zinman (2018) and Dupas and Robinson (2013a) who find a positive association of wealth and income, respectively, with take-up of a savings account. Access to an account may therefore not reach the poorest of the poor to the desired extent. This reinforces the pattern found in many settings that getting buy-in by the lowest income population for socially beneficial programs can be challenging.

3.3 Robustness Checks

In the following section, we first analyze two potential threats to the validity of the analysis: demand effects and attrition. We then analyze whether the effects are driven by the sub-treatment, i.e., the peer group treatment designed as a commitment device.

Demand Effects

Demand effects refer to changes in behavior by experimental subjects due to cues about what constitutes appropriate behavior (e.g., Crowne and Marlowe, 1964; Zizzo, 2010). In the context of this study, one concern is that participants who received access to a savings account through FE might report more positive answers in the follow-up survey out of gratitude or a sense of indebtedness towards the organization. This is not very likely to be the case here, since participants did not know that the survey was related to the savings account.[36] Even so, we included two questions in the survey specifically designed to test for possible demand effects.

The first question, at the very beginning of the survey, asked participants how complicated they found the process of scheduling the interview. The second question was asked at the very end of the survey, in case participants would find out during the survey that it was related to the savings account. This question asked participants how satisfied they were with FE. Table A20 shows that neither of these questions respond to the treatment. Participants receiving the treatment rated the difficulty of the survey process as 0.04 points higher compared to 2.45 of the control group (on a scale from 1 to 4) and satisfaction with FE as 0.01 point lower compared to 6.38 of the control group (on a scale from 1 to 7), with neither effect being close to statistical significance. This gives us reassurance that the self-reported findings in this paper are not driven by demand effects.

Attrition

In order to maximize response rates in the follow-up survey, including among individuals who were no longer members of FE, the follow-up survey was administered at participants' home or business location. Despite special efforts aimed at limiting attrition,[37] 14.2% of participants could not be found for the follow-up survey. Table 1 shows that the attrition rate was 2.9 percentage points higher in the treatment group than in the control group. Columns (5) and (6) also show that attritors differ from non-attritors along several characteristics. Participants who are younger or live in smaller households are less likely to be found for the follow-up survey. Even though, as shown in Columns (3) and (4), overall characteristics are still balanced between the treatment and control groups among the non-attritors, the differential attrition still raises some concerns about a potential bias being introduced.

Given the fact that we use individual fixed effects, the analysis is controlling for all time-invariant characteristics. We can therefore rule out any bias resulting from time-invariant differences in the composition of treatment and control groups. What we cannot rule out, however, is that the somewhat different attrition rates between treatment and control groups lead to differential trends over time among the non-attritors.

We address this concern in two ways. First, we use the bounding approach of Lee (2009) to construct upper and lower bounds for the treatment effect. The idea is to see which range of treatment effects are possible under extreme assumptions about the attrited observations. Specifically, to construct the Lee bounds, we trim the sample of the group with less attrition, i.e. the control group, such that the share of remaining observations (after attrition plus trimming) is equal in both groups. To estimate the lower and upper bounds of the treatment effect, the trimming is done in two different ways: once by removing the observations with the largest values of the outcome, once the observations with the smallest. The estimates obtained with these two trimmed samples provide the Lee bounds of the treatment effect. Table A21 in the Appendix shows that the coefficients do not change their sign within these conservative Lee bounds. The range of the treatment effects on borrowing is between 3,784 and 13,931 pesos for the total amount of outstanding short-term debt, and between 0.07 and

0.15 for the number of categories. With respect to self-reported well-being, the effect ranges from 0.07 to 0.17 standard deviations for anxiety about the financial future and from 0.05 to 0.13 standard deviations for recent economic difficulty.

Second, we recalculate the main results by reweighting our sample to compensate for the differential composition between treatment and control groups, using inverse probability weights (Wooldridge, 2002, 2007). This approach first predicts the probability that based on observables, a participant will be in the follow-up survey, by using a probit regression.[38] Thereafter, each individual is weighted with the inverse of this probability. Those who are less likely to be part of the follow-up survey hence receive a higher weight, leading participants with characteristics that are underrepresented in the follow-up survey to weigh more.

All results remain qualitatively unchanged when applying inverse probability weights (see Table A22 in the Appendix). Being in the treatment group reduces the total amount of outstanding short-term debt by 12,163 pesos without, and by 11,806 pesos with the attrition weights. The number of categories that participants are indebted to is reduced by 0.13 without attrition weights and 0.11 with them. On the question of the participant's anxiety about their financial future, treatment improved the average response by 0.13 standard deviations without attrition weights and 0.11 with them. For recent economic difficulty, the improvement is 0.09 standard deviations without and 0.08 with attrition weights, now insignificant. Finally, being in the treatment group reduces the consumption cutback index for individuals who had a shock by 0.37 units without, and by 0.36 with attrition weights. Overall, reweighting the analysis to account for the slightly different attrition proportion between treatment and control group does not substantially affect the magnitudes of any of our main results.

Differential Effects by Type of Account

As discussed in Section 2.1, for half of the sample, the access to the formal savings account was accompanied by a peer group savings commitment device.[39] This commit-

ment device was designed to additionally remove barriers to savings by reducing self-control problems and has been found by Kast et al. (2018) to significantly increase savings in the accounts. It is therefore of interest to understand whether the results we find in this paper are mainly driven by the subgroup who received the peer group support, or whether they are also present for those who simply received access to the formal savings account. Splitting the sample in half to compare the subgroups with and without peer group support leads to a loss in statistical power since the number of observations in each sub-treatment is smaller. This will tend to reduce the level of significance for individual coefficients, so some of what follows is more of a suggestive nature.

[Table 8]

Table 8 shows the impact estimates for those with just the basic savings account treatment (without peer groups), and the difference in impact for those with the additional peer group support. The first pattern to notice is that, overall, the peer group support does not seem to be driving the results. For three of the five coefficients, the effect is not stronger for those with the additional peer group support. The statistical power is generally reduced when just looking at the subgroups, but the impact on three of the key outcomes - the reduction in borrowing, recent economic difficulty and consumption cutbacks - remains statistically significant when looking just at those who did not receive the additional peer group support. The reduction in the amount of short-term borrowing and anxiety about financial future is larger for those in the peer group treatment, but this difference is not statistically significant.

4 Discussion and Conclusion

This paper investigates the impact of access to a free, financially liquid savings account for a low-income population in Chile. When given access to the savings accounts, participants

substitute short-term informal credit with formal savings. They have less outstanding debt and owe money to fewer categories of creditors. This behavior reveals that even though in principle, participants could save at home or store money in their micro-business or in easily liquefiable assets, these forms of savings are not equivalent to savings in the formal savings account, and are in fact quite costly.

If savings and credit are substitute mechanisms for consumption smoothing, the question arises whether reducing barriers to saving through a free savings account mainly leads to a replacement of credit by savings, or whether overall smoothing also increases. Looking at consumption smoothing as well as two self-reported welfare measures, we find that the overall level of self-insurance increases substantially. For the two latter measures, the magnitude of the effect corresponds to about half or more of the change in well-being associated with a job loss or severe business downturn. Finally, savings behavior interacts with the social environment: take-up is particularly high for those who are pure lenders to their network at baseline, and in turn those who originally regretted not having saved more reduce their lending to others.

These results have a number of implications for research and policy. First, they add to the growing evidence on the benefits of facilitating formal savings on a variety of outcomes. These positive findings suggest that increasing access to savings vehicles may help to improve the welfare of the poor. However, private banks often do not find it in their interest to host savings accounts for low amounts, and charge such accounts with administrative hurdles, minimum balance requirements and maintenance fees, which can result in large negative interest rates. Given this lack of private incentives, governments may have a role to play in facilitating access. Reducing costs would make formal savings more accessible to the poor. At the same time, our survey results, showing that at baseline 46% of participants were intimidated by entering a bank, also suggest that reducing mental barriers or improving trust through the endorsement of a credible institution may play an important role in encouraging take-up, consistent with the findings of Cole et al. (2013) for the case of micro-insurance.[40]

In designing these policies, more research is required to study which contexts best allow for the different benefits of savings to be realized, and whether results differ in the context of microfinance organization compared to the general population.[41]

Second, while many studies have found that withdrawal commitment devices, which limit the liquidity of the accounts, can help people build their savings, this illiquidity may come at a cost, as it reduces the usefulness of the savings for precautionary purposes by impeding discretionary use in times of need.[42] This suggests that depending on the goal a particular savings vehicle is meant to serve, and depending on the savings constraints, different levels of liquidity may be optimal. It is noteworthy that a liquid savings account with no withdrawal restrictions is not necessarily at odds with facilitating longer-term investments, e.g. for health and education, as found by Prina (2015) in Nepal. It may be important in this regard to distinguish financial liquidity (in terms of a lack of withdrawal restrictions) from ease and speed of access (e.g. through a debit card or mobile phone banking). Too much accessibility may reduce the benefits of formal savings accounts.[43] An effective setup for precautionary savings might therefore be characterized by a financially liquid account without withdrawal limits, but with some degree of friction in the withdrawal process. More research is required to analyze this tradeoff between liquidity for times of need and restricted liquidity as a commitment device.

Third, the finding that those who initially regretted not having saved more are less likely to provide credit to others in their social network after receiving access to the account raises some questions about the overall social impact. However, these findings have to be interpreted with caution, since we did not start the analysis with this subgroup in mind, and it will be important to test their replicability. If these results hold, the overall social impact is a priori ambiguous. On the one hand, access to savings vehicles increases the peace of mind of those who can use them. In addition, if the social pressure of sharing resources with relatives has a disincentive effect on effort (Alger and Weibull, 2010; Jakiela and Ozier, 2016), and access to saving accounts lowers that pressure, this may reduce such disincentives.

On the other hand, the reduced lending may diminish the welfare of others in participants' social networks. Further research is required to investigate these general equilibrium and distributional effects.

Finally, our results show that precautionary savings can, to some degree, provide an alternative mechanism to formal insurance. This may be particularly important in environments in which access to formal insurance options is limited. While insurance contracts could in principle provide protection from economic shocks at a lower cost than self-insurance through savings, one benefit of self-insurance is that it does not suffer from the two-sided asymmetric information problem of formal insurance products. In low-income environments, it is often not only difficult for the insurer to verify the validity of insurance claims, but also for the clients to trust that the insurers will fulfill their future obligations. This is one of the reasons why providing insurance to low-income populations in developing countries is challenging, even for risks that seem to present relatively few problems of moral hazard or adverse selection, such as weather risks (e.g., Giné and Yang, 2009; Giné et al., 2012; Cole et al., 2013; Cai et al., 2015). In addition, even for situations in which micro-insurance has been successfully provided, there is no clear evidence yet on whether it helps participants smooth consumption.[44] While for low-probability, high-loss events, self-insurance through savings would be very costly and often not realistic, it may provide an effective alternative for smaller-loss, higher-probability events such as short-term income shocks.

Notes

[1]Short-term debt includes loans with informal networks of friends and family, providers of basic services and utilities, business contacts and short-term lending institutions.

[2]The loans that participants received from the microfinance institution were on a rigid schedule and could therefore not be used for unexpected shocks. In focus groups prior to the intervention, participants expressed strong desire to increase precautionary savings for such occasions.

[3]The savings intervention had three treatment arms. A quarter of the treatment group received a preferential interest rate and half of the treatment group additionally had access to a commitment device based on self-help peer groups. A separate study (Kast et al., 2018) finds that the latter treatment significantly increased savings. This raises the question whether our findings are mainly driven by those with access to the peer group treatment. For most outcomes, this is not the case. The one outcome for which there is a significantly stronger effect for those with the peer group support is the anxiety about the financial future.

[4]"Other-control" problems can result when individuals feel pressured to share their resources with members of the family and the community (e.g., Hertzberg, Forthcoming; Brune et al., 2016).

[5]The first question asks participants, how complicated they found the process of scheduling the interview. The second question was asked at the end in case participants would find out during the survey that the study was related to the savings account. It asks how satisfied participants were with the microfinance organization. Relatedly, Dhar et al. (2018) use a Marlowe-Crowne survey module to detect demand effects.

[6]A number of field experimental studies that have focused on the impacts of savings more broadly also include some debt variables among their outcomes (e.g. Atkinson et al., 2013; Somville and Vandewalle, 2018; Dupas et al., 2018; Breza and Chandrasekhar, 2019; Aggarwal et al., 2020). Appendix Table A1 summarizes their findings. The type of loans analyzed varies across papers and ranges from microcredit to bank loans to more informal forms of debt. The treatment effect across these studies is mixed and mostly not statistically significant, with the exception of Atkinson et al. (2013) who also find a significant reduction on the probability of taking on new short-term debt.

[7]The use of buffer stocks for self-insurance has been shown empirically by, e.g., Paxson (1992), Udry (1995) and Alderman (1996), who show how people use savings in response to income shocks. For an overview on savings motives and precautionary savings see Browning and Lusardi (1996).

[8]This is consistent with Beaman et al. (2014) who find that access to a flexible form of rotating savings and borrowing groups in Mali can improve food security, investment in livestock and consumption smoothing, and Dizon et al. (2020) who find that an increase in mobile money savings in Kenya led to substitution away from informal risk-sharing arrangements. In a lab setting, Chandrasekhar et al. (2012) find that savings can allow individuals to smooth risk that cannot be shared inter-personally.

[9]The savings accounts analyzed in this study are financially liquid but there is a logistical hurdle as participants need to go to the bank to withdraw. The tension that households face between needing flexibility and maintaining saving discipline is well-documented by Morduch and Schneider (2017) in the United States context.

[10]Field et al. (2013) show that relaxing this rigidity, and in particular, delaying the time when the loan repayment starts, can increase business investment and profits.

[11]None of the participants of the focus groups were subsequently included in the randomized study, to avoid any possible contamination of the study by the pre-treatment discussions.

[12]500 Chilean pesos = about 1 USD in 2009.

[13]While this account was only available to study participants, the Chilean State bank Banco Estado concurrently rolled out a similar free account to all Chilean nationals with a valid ID.

[14]In the baseline survey, 46% the of participants reported that they did not like entering a bank because

they felt intimidated.

[15]Another intervention studied in Kast et al. (2018), in which feedback messages were sent to participants, was launched only after the follow-up survey and does therefore not affect the results presented in this paper.

[16]While the inclusion of the baseline data is not required for causal identification, it is valuable to the analysis in that it improve precision of the estimates.

[17]In addition, we implement heterogeneity analysis to evaluate the impact on outcomes by subgroup, focusing on the following five subgroups of participants: Those who at the time of the baseline survey always or frequently regretted not having saved more, already had some form of bank account, were socially taxed (i.e. lent to family and friends but did not receive such loans in return), had household conflicts, and those who experienced an economic shock in the three months before the follow-up survey.

[18]Short-term borrowing from family and friends includes parents, children, siblings, partner, friends and other relatives. Short-term borrowing from business contacts and short-term lending institutions includes suppliers, business partners, stores, non-banking lending institutions (so called *financieras* and *cooperativas*) and money lenders. Short-term borrowing from service providers and utilities, includes medical facilities, educational institutions and utilities (waster, gas, electricity, phone). For a descriptive overview and further details regarding the types of short-term borrowing in our data, see Table A2 in the Appendix. Short-term lending to family and friends includes the same six sub-categories as short-term borrowing. Short-term lending to business contacts, includes clients, business partners, and FE partners.

[19]500 Chilean pesos = approximately 1 USD in 2009.

[20]Total financial savings include the following categories: actual savings in the Fondo Esperanza account, as well as self-reported savings in another bank account, in a cooperative, in a housing subsidy account, at home or in the business, in a ROSCA "polla," left with another person, as advance purchases, and reported under "other."

[21]The consumption items include meals, meat, medicine, school supplies, clothing, school snacks, walking instead of using public transportation, and eating out. These items resulted from the cutbacks mentioned by other FE members in focus groups conducted prior to the intervention.

[22]This is consistent with the meta-analysis by (Knowles, 2018) showing relatively low take-up rate and even lower active usage rates for savings bank accounts.

[23]Control means reported in regression tables are for the control group in the post-treatment period.

[24]We use the inverse hyperbolic sine transformation rather than logs, since there is a significant share of zeros in the outcome variables.

[25]In the urban Chilean context, the poor's workplace is often far away from their home, with business activities located in the city center and housing for the poor at the outskirts. Cutting back on public transportation in these cases therefore often means a walk of two or more hours in each direction.

[26]Table A8 in the Appendix shows consumption cutbacks for the full population, including those who did not experience a shock. The frequency of cutting back consumption is reduced for almost all items, however, reduction in meat and walking still remain significant at the 10% level. The overall impact, measured by AES, is no longer statistically significant.

[27]Relatedly, Attanasio and Ríos-Rull (2000) study the impact of a conditional cash transfer program on the risk-sharing networks in Mexico and conclude that it may have crowed out private transfers.

[28]Appendix Section A.1 discusses heterogeneous treatment effects in more detail, for more subgroups and for all our main outcome variables. It includes analysis by whether participants had a pre-existing savings account, had conflicts with their partner over money, were socially taxed, or had an economic shock in the three months leading up to the follow-up survey.

[29]Total financial debt includes borrowing from friends and family, service providers and utilities, business contacts and short-term lending institutions as well as long-term debt including mortgages, loans with FE

and formal bank loans.

[30]Table 5 uses administrative bank data on savings in the Fondo Esperanza, while Table A15 use self-reported savings in the Fondo Esperanza account from survey responses.

[31]In addition to these broader measures of well-being, the treatment decreased the probability of participants stating that they were intimidated to enter a bank by 4.8% from a baseline of 46% (p=0.06).

[32]These estimates are obtained from a difference-in-difference regression of job loss or business downturn in the preceding three months on the two subjective well-being measures.

[33]The questions in this part of the survey were: (1) Who in the household makes decisions about spending? (2) Who in the household makes decisions about savings? (3) Do you hide savings from your partner or other relatives? (4) Did you recently ask your partner for money? (5) Do you have conflicts with your partner about money?

[34]Hyperbolic preferences are determined by giving survey participants hypothetical choices between x pesos in time t and y pesos ($x < y$) in time t+1 month, similar to e.g., Ashraf et al. (2006b) and Meier and Sprenger (2010).

[35]This is consistent with Ashraf et al. (2006b), who find that individuals with hyperbolic time preferences demonstrate a preference for commitment devices. Testing for subsequent usage, we find that being hyperbolic does not reduce the probability of using the account conditional on opening one, and contrary to the findings of Ashraf et al. (2006b), does not lead to a greater variance in the account balance.

[36]Participants knew that the survey was from FE, but FE has many different activities and products and no specific mention of the savings account was made when presenting the survey.

[37]During the baseline survey, we asked participants not only for their own contact information, but also for the contact details of a close relative or friend through whom they could be reached. In addition, we chose to work with the survey agency Microdatos, which has special expertise in following participants for panel studies.

[38]The following variables are used to construct the weights: all main outcome variables at baseline, all variables for which there is a significant difference between attritors and non-attritors in Table 1, and a number of additional characteristics which ensure that conditional on all weight variables, being in the treatment group is no longer statistically significantly associated with attrition (with a p-value of 0.96).

[39]In the groups that had been selected for the peer group savings commitment device, participants had the option of making a pledge as to how much they were going to deposit into the account every week. In the regular group meetings, participants followed up on each other's commitments and checked who had a deposit slip to prove that they had made their weekly deposit.

[40]Free basic current accounts, for example, such as those recently introduced by the Chilean government, may play an important role in providing access to savings. Similarly, policies that facilitate deposits into savings accounts, such as dispensing welfare payments into government-provided savings accounts rather than paying them out in cash, as recently introduced by several countries, can also have potentially large benefits. On the other hand, based on the companion paper of this study (Kast et al., 2018), which shows little response to a large increase in the interest rate, subsidies to the returns may be a less effective tool for encouraging savings.

[41]Microfinance clients might be different from others in many regards, such as financial literacy, entrepreneurial spirit, having significant debt at the same time, or being more experienced with financial institutions.

[42]In contrast, deposit commitment devices such as in e.g. Madrian and Shea (2001); Thaler and Benartzi (2004); Ashraf et al. (2006a) and Kast et al. (2018) encourage the deposit margin without necessarily restricting withdrawals.

[43]Too much ease of access may not only exacerbate self-control problems (e.g. in the form of impulse-spending), but also other-control problems, as it can make it easier for others to pressure the saver to disclose

and share the savings (Schaner, 2017).

[44]Several studies do, however, find that weather insurance can help farmers make riskier decisions (e.g., Vargas Hill and Viceisza, 2012; Mobarak and Rosenzweig, 2012; Cole et al., 2017; Karlan et al., 2014; Cai, 2016).

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Table 1: Baseline Summary Statistics and Balance of Randomization

	Full Sample		Estimation Sample (Excluding Attritors)		Attritors vs. Non-Attritors	
	(1) Control group	(2) Difference: treatment - control	(3) Control group	(4) Difference: treatment - control	(5) Non-Attritors	(6) Difference: attritors - non-attritors
Age	43.29	0.10	43.44	0.13	43.52	-1.20**
	(11.61)	(0.44)	(11.56)	(0.47)	(11.58)	(0.49)
Years of education	9.81	-0.16	9.76	-0.13	9.68	0.21
	(3.12)	(0.16)	(3.08)	(0.16)	(3.08)	(0.14)
Household size	4.27	0.06	4.30	0.05	4.33	-0.15*
	(1.73)	(0.07)	(1.69)	(0.07)	(1.73)	(0.08)
Per capita monthly	79,955	564	79,419	986	80,047	1,926
household income	(64,495)	(2,493)	(65,695)	(2,621)	(62,095)	(2,482)
	[66,000]	[1,500]	[65,428]	[1,738]	[66,667]	[3,333]
Has prior savings account	0.32	0.00	0.32	0.01	0.33	-0.00
	(0.47)	(0.02)	(0.47)	(0.02)	(0.47)	(0.02)
Total financial savings amount	189,424	2,792	190,908	-1,490	189,961	8,867
	(420,259)	(16,536)	(428,491)	(18,035)	(447,194)	(21,114)
	[80,000]	[0]	[80,000]	[0]	[80,000]	[-8,000]
Total financial savings amount	147,698	-2,329	147,522	-2,428	145,979	1,562
(winsorized at the top and	(177,279)	(7,894)	(177,776)	(8,439)	(175,189)	(8,435)
bottom 5%)						
Total financial savings	1.63	0.07	1.64	0.07	1.68	-0.07
categories	(1.06)	(0.05)	(1.07)	(0.05)	(1.11)	(0.05)
Short-term borrowing amount	119,013	-17,988	117,706	-16,138	107,447	-55.61
	(457,596)	(15,964)	(442,591)	(16,822)	(407,207)	(18,342)
	[0]	[0]	[0]	[0]	[0]	[0]
Short-term borrowing amount	65,184	-2,996	66,203	-4,072	63,615	-2,516
(winsorized at the top 5%)	(129,852)	(5,033)	(130,863)	(5,090)	(128,669)	(5,850)
Short-term borrowing	0.91	0.03	0.91	0.05	0.94	-0.05
categories	(1.13)	(0.05)	(1.12)	(0.05)	(1.15)	(0.05)
Short-term lending amount	96,632	8,769	98,677	7,565	103,486	-8,539
	(315,807)	(10,519)	(331,528)	(11,608)	(307,095)	(9,905)
	[13,000]	[2,000]	[15,000]	[-900]	[14,500]	[-700]
Short-term lending amount	68,763	5,879	68,052	6,426	72,137	2,864
(winsorized at the top 5%)	(113,236)	(4,461)	(111,995)	(4,749)	(119,822)	(5,309)
Short-term lending categories	1.07	0.06	1.08	0.05	1.11	-0.00
	(1.20)	(0.05)	(1.19)	(0.05)	(1.22)	(0.05)
Need to cut back consumption	0.70	0.01	0.70	0.01	0.71	-0.02
	(0.46)	(0.02)	(0.46)	(0.02)	(0.45)	(0.02)
Anxious about financial future	2.90	0.04	2.91	0.03	2.93	-0.05
	(0.97)	(0.04)	(0.97)	(0.05)	(0.97)	(0.05)
Recent economic difficulty	5.03	0.14	5.00	0.18	5.12	0.02
	(2.79)	(0.12)	(2.78)	(0.13)	(2.77)	(0.12)
Regretted not saving more	0.68	0.02	0.68	0.02	0.69	-0.00
	(0.47)	(0.02)	(0.47)	(0.02)	(0.46)	(0.02)
Socially taxed	0.26	0.00	0.26	0.00	0.26	0.00
	(0.44)	(0.01)	(0.44)	(0.02)	(0.44)	(0.02)
Household conflicts over money	0.30	-0.02	0.30	-0.02	0.29	-0.02
	(0.46)	(0.02)	(0.46)	(0.02)	(0.45)	(0.02)
Economic shock	0.29	-0.00	0.29	-0.00	0.29	-0.02
	(0.45)	(0.02)	(0.46)	(0.02)	(0.46)	(0.02)
Attrition	0.12	0.03**				
	(0.33)	(0.01)				
Number of individuals	1,488	4,175	1,304	3,582	3,582	4,175

Notes: Columns (1) and (3) show the control group mean for the full sample and for the sample excluding attritors respectively, with medians in brackets. Columns (2) and (4) show the coefficients of regressions as well as coefficients of median regressions in brackets of the pre-treatment variable in question on a treatment dummy. Column (5) shows the mean among non-attritors as well as the median in brackets. Column (6) shows the coefficients of OLS regressions as well as median regressions in brackets of the pre-treatment variable in question on the attrition dummy. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. The variables "anxious about financial future" and "recent economic difficulty" range from 1 to 4 and 1 to 10 respectively. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 2: Effects on Short-Term Borrowing

	(1) Total short-term borrowing	(2) Owed to family and friends	(3) Owed to service providers	(4) Owed to business contacts and institutions
Panel A: Probability of Any Borrowing				
Account × post	-0.047*	-0.063***	-0.034	0.008
	(0.027)	(0.022)	(0.023)	(0.018)
Control mean	0.375	0.174	0.206	0.122
Panel B: Amounts (Winsorized at Top 5%)				
Account × post	-12,163**	-6,360***	303	-1,007
	(5,803)	(2,367)	(1,381)	(1,909)
Control mean	61,223	16,304	10,976	8,739
Panel C: Inverse Hyperbolic Sine of Amount				
Account × post	-0.491	-0.730***	-0.142	-0.005
	(0.350)	(0.269)	(0.262)	(0.204)
Control mean	4.582	2.118	2.347	1.468
Individual FE	Yes	Yes	Yes	Yes
Individuals	3,551	3,535	3,537	3,545
Observations	7,102	7,070	7,074	7,090

Notes: Panel A shows the effect on the probability of any borrowing. Panel B on the amount borrowed winsorized at 5% and Panel C on the inverse hyperbolic sine (IHS) of the amount lent. Column (1) displays the impact on total short-term borrowing, while Columns (2) - (4) present three different components of short-term borrowing. The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *p<0.1, **p<0.05, ***p<0.01. Appendix Table A4 shows additional results for non-winsorized amounts, winsorized at 1%, and number of categories. For ANCOVA estimation, see Appendix Table A5.

Table 3: Consumption Cutbacks in the Face of Economic Shocks

	(1) Meals	(2) Meat	(3) Medicines	(4) School supplies	(5) Clothing	(6) School snacks	(7) Public transport	(8) Eating out
Account × post	-0.013	-0.085**	-0.013	-0.038	-0.053	-0.043**	-0.103**	-0.018
	(0.027)	(0.040)	(0.035)	(0.026)	(0.043)	(0.021)	(0.042)	(0.045)
Control mean	0.146	0.530	0.274	0.144	0.610	0.111	0.473	0.447
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individuals	1,428	1,424	1,423	1,416	1,423	1,414	1,424	1,403
Observations	2,856	2,848	2,846	2,832	2,846	2,828	2,848	2,806
AES: -0.111** (0.055)								

Notes: Participants were asked whether they had to cut back consumption of eight different categories due to economic difficulties in the preceding three months. This table reports results for regressions where the outcome is a dummy that equals 1 when the answer is yes for a particular category. The sample is restricted to participants who report having faced an economic shock in the three months preceding the follow-up survey. (For the same analysis without any sample restriction see Table A8). The average effect size (AES) reported in the final row is calculated as discussed in Section 2.2. Individual fixed effects are included in each specification (including in the calculation of AES). Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.10. For ANCOVA estimation, see Appendix Table A9.

Table 4: Effects on Lending

	(1) Total lending	(2) Lent to family and friends	(3) Lent to business contacts	(4) Total lending	(5) Lent to family and friends	(6) Lent to business contacts
Panel A: Probability of Any Lending						
Account × post × (baseline: regret not saving more)				-0.096**	-0.118***	-0.062
				(0.043)	(0.042)	(0.045)
Account × post	-0.024	-0.019	-0.015	0.040	0.060	0.028
	(0.024)	(0.024)	(0.022)	(0.039)	(0.038)	(0.040)
Control mean	0.541	0.255	0.406	0.541	0.255	0.406
Panel B: Amounts (Winsorized at the Top 5%)						
Account × post × (baseline: regret not saving more)				-27,775**	-18,568***	-6,810
				(11,515)	(6,862)	(5,889)
Account × post	-3,344	-5,668	2,137	15,740	6,799	7,129
	(5,777)	(3,440)	(2,787)	(10,238)	(6,028)	(4,989)
Control mean	81,813	31,574	38,421	81,813	31,574	38,421
Panel C: Inverse Hyperbolic Sine of Amount						
Account × post × (baseline: regret not saving more)				-1.565**	-1.655**	-1.051*
				(0.520)	(0.499)	(0.517)
Account × post	-0.195	-0.229	-0.017	0.883	0.890	0.733
	(0.289)	(0.281)	(0.246)	(0.478)	(0.455)	(0.453)
Control mean	6.479	3.046	4.710	6.479	3.046	4.710
Post × (baseline: regret not saving more)	No	No	No	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Individuals	3,555	3,542	3,535	3,510	3,497	3,490
Observations	7,110	7,084	7,070	7,020	6,994	6,980

Notes: Panel A shows the effect on the probability of any lending. Panel B on the amount lent winsorized at 5% and Panel C on the inverse hyperbolic sine (IHS) of the amount lent. Columns (1), (2), and (3) present the effect on total lending and its two components, lending to friends and family and lending to business contacts. Columns (4), (5) and (6) present the same outcomes for the subgroup of people who always or frequently regretted not saving more at baseline. The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *** p<0.01, ** p<0.05, * p<0.10. Appendix Table A11 shows additional results for non-winsorized amounts, winsorized at 1%, and number of categories. For ANCOVA estimation, see Appendix Table A12.

Table 5: Effects on Total Savings

	(1) Probability of any savings	(2) Amounts (winsorized at 5%)	(3) IHS of amounts
Panel A: Total Financial Savings			
Account × post	0.120***	-13,703	0.910***
	(0.027)	(8,982)	(0.341)
Control mean	0.740	183,269	9.358
Individuals	3,555	3,555	3,555
Observations	7,110	7,110	7,110
Panel B: Net Total Financial Savings (incl. Borrowing)			
Account × post	0.082***	14,797	1.064**
	(0.025)	(16,440)	(0.524)
Control mean	0.554	-330	2.980
Individuals	3,577	3,577	3,577
Observations	7,154	7,154	7,154
Panel C: Total Financial Assets (incl. Borrowing and Lending)			
Account × post	0.057**	8,395	0.693
	(0.023)	(18,093)	(0.524)
Control mean	0.656	99,801	5.203
Individuals	3,580	3,580	3,580
Observations	7,160	7,160	7,160
Individual FE	Yes	Yes	Yes

Notes: Panel A shows total financial savings (see Section 2.3 for categories included in total financial savings). Net total financial savings in Panel B is total financial savings minus total financial debt. Net total financial assets in Panel C is total financial savings minus total financial debt plus total lending as a form of saving. Column (1) displays the effect on the probability of any savings, Column (2) on the amount of savings winsorized at 5% and Column (3) on the inverse hyperbolic sine (IHS)of the amount of saving. Winsorization is at the top for variables that are strictly positive (Panel A), and at the top and bottom for variables that can take negative values (Panels B and C). Number of observations varies slightly since the aggregated variables only have a missing value if the values of each component is missing. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *p<0.1, **p<0.05, ***p<0.01. Appendix Table A13 shows additional results for non-winsorized amounts, winsorized at 1%, and number of categories. For ANCOVA estimation, see Appendix Table A14.

Table 6: Subjective Well-Being

	(1) Anxiety about financial future	(2) Recent economic difficulty
Account × post	-0.112*	-0.086*
	(0.060)	(0.052)
Control mean	-0.126	0.112
Individual FE	Yes	Yes
Individuals	3,519	3,515
Observations	7,038	7,030
AES: -0.101** (0.047)		

Notes: Both "anxiety about financial future" and "recent economic difficulty" are expressed in standard deviations. The overall average effect size (AES) on well-being is reported in the final row of the table, which is calculated as discussed in Section 2.2. Individuals are excluded in case of non-response to a particular question, which explains the differences in the number of observations. Individual fixed effects are included in each specification (including the calculation of AES). Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1. For ANCOVA estimation, see Appendix Table A17.

Table 7: Take-up of the Account

	(1)	(2)	(3)
	Take-up	Take-up	Take-up
Female	0.077**	0.065	0.064
	(0.038)	(0.040)	(0.040)
Age	0.027***	0.028***	0.029***
	(0.006)	(0.006)	(0.006)
Age^2	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)
Years of education	0.006	0.006	0.006
	(0.004)	(0.004)	(0.004)
Children at home	-0.011	-0.015	-0.014
	(0.009)	(0.009)	(0.009)
ln(Income per capita)	0.004	-0.002	-0.002
	(0.019)	(0.019)	(0.019)
Has prior savings account	0.036	0.028	0.027
	(0.022)	(0.022)	(0.022)
Head of household		-0.045*	-0.046*
		(0.025)	(0.025)
Conflicts with partner over money		0.046*	0.046*
		(0.024)	(0.024)
Socially taxed		0.058**	
		(0.024)	
Regrets not saving more		0.005	0.005
		(0.025)	(0.025)
Hyperbolic preferences		0.052**	0.052**
		(0.025)	(0.025)
Fear savings stolen in the home		0.002	0.001
		(0.035)	(0.035)
Lent to family or friends			0.044*
			(0.024)
Owes to family or friends			-0.028
			(0.025)
Constant	-0.460	-0.449	-0.440
	(0.282)	(0.282)	(0.285)
Mean take-up	0.393	0.397	0.397
R-squared	0.028	0.039	0.039
Observations	2,148	2,055	2,055

Notes: Linear probability regressions among individuals who were offered an account and were present in both surveys, regressing baseline characteristics on take-up. Take-up is defined as actively using the account beyond the minimum opening deposit. "Children at home" is the total number of individuals aged 18 years or younger living at home. Individuals are excluded in case of non-response to a particular question, which explains the lower number of observations in Columns (2)-(3). Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 8: Differential Effects by Type of Account

	(1) Short-term borrowing amount (winsorized 5%)	(2) Short-term borrowing categories	(3) Anxiety about financial future	(4) Recent economic difficulty	(5) Consumption cutback categories
Account × post	-9,386.771	-0.145**	-0.044	-0.093	-0.451**
	(6,971.834)	(0.063)	(0.068)	(0.061)	(0.214)
Additional peer group × post	-5,114.876	0.028	-0.125**	0.014	0.149
	(6,304.074)	(0.059)	(0.059)	(0.062)	(0.202)
Control mean	61,223	0.571	-0.126	0.112	2.138
Individual FE	Yes	Yes	Yes	Yes	Yes
Individuals	3,551	3,554	3,519	3,515	1,433
Observations	7,102	7,108	7,038	7,030	2,866

Notes: Regressions for the key results from Tables 2, 3 and 6. The first row shows treatment effects for those with just the savings account, the second row shows the difference of the effects for those with the additional peer group support. The outcome variable in Column (5) is the total number of categories of spending a participant had to cut back on and the sample is the same as in Table 3. Individuals are excluded in case of non-response to a particular question, which explains the differences in the number of observations. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

A Appendix

A.1 Heterogeneity Analysis

In this section, we analyze whether there are heterogeneous treatment effects for five subgroups of interest: Those who at the time of the baseline survey 1) regretted not having saved more, 2) already had a form of savings account, 3) were socially taxed, or 4) had conflicts with their partner over money, and 5) those who experienced an economic shock in the three months leading up to the follow-up survey.[1] Appendix Tables A23, A24, and A25 show the impact by subgroup on borrowing, lending, and saving outcomes respectively.[2] All of the following results have to be interpreted with caution, as the subgroups are of course not causal in nature and may correlate with a number of other individual characteristics or circumstances.

As discussed in Section 3.1 above, we see strong heterogeneous treatment effects for lending by whether or not participants regretted at baseline that they had not saved more. There is an increase in lending by those who did not have savings regrets and a decrease by those who did. This could suggest that the reason for the regret might be other-control problems, and that having access to a savings account allowed affected participants to protect themselves from lending their cash to others. At the same time, we see no clear differential impact by baseline regret on borrowing or savings outcomes.

Those who already had a bank account have a significantly stronger reduction in borrowing in 1 out of 30 specifications, and for lending in 3 out of 30 specifications. There is no significantly different effect for this subgroup on any of the savings outcomes. The fact that there is no systematically larger effect for this group is likely the result of the fact that the pre-existing accounts often had quite different characteristics than the study account. They were often highly illiquid, or tied to a particular spending purpose.

We analyze the differential impact by whether participants were socially taxed, based on previous findings by Dupas and Robinson (2013b). We find that those who were socially taxed at baseline see a significantly stronger reduction in borrowing in 8 out of 30 specifications and a significantly weaker reduction in lending in 2 out of 24 specifications. This suggests that those who were already socially taxed may have used the bank account to provide even more net credit to their network. There are no differential impacts on savings outcomes.

Within the subgroup that reported having an economic shock in the three months prior to the follow-up survey there is suggestive evidence for stronger impacts on all main outcomes: a significantly stronger decrease in borrowing for 2 out of 30 specifications and in lending for 10 out of 24 specifications, and a significantly greater increase in savings in 1 out of 20 specifications. This would suggest that the accounts were particularly impactful for those who were faced with an economic shock, consistent with a precautionary savings role.

Finally, we analyzed whether there are differential impacts by whether participants had conflicts with their partner over money. We do not find significantly different effects for any of our main outcomes, consistent with the finding discussed in the previous section that there were no significant impacts of the accounts on household dynamics.

[1] Subgroup 1 was already in our original analysis, subgroups 2-5 were suggested by referees.

[2] For consumption cutbacks and subjective well-being outcomes, none of the subgroups had statistically significant differential effects.

Table A1: Other Field Experiments on the Effects of Savings Accounts on Borrowing

Authors	Country, Setting, Target Population	Account Type	Opening & Withdrawal Fees, Minimum Balance	Take-up Rate	Usage Rate	Effect on Savings	Effect on Borrowing
Atkinson, Janvry, McIntosh, and Sadoulet (2013)	Guatemala; urban; 1,375 micro-credit clients	Savings account with opt-in and opt-out commitment in treatment arms	Minimum balance of $0.2	40-80%	14-57%	$6-26 increase in savings compared to $4 increase for those without commitment devices	18-39 percentage point decrease in renewal of loans for short-term loans (12-18 months, statistically significant) and 0-5 percentage point increase for longer term loans (24-36 months, not statistically significant)
Somville and Vandewalle (2018)	India; rural; 442 villagers across 17 villages	Savings account	Withdrawals free if average quarterly balance above $6.8, fee of $0.1-0.3 otherwise	100%	64%	$6.3 increase in household savings compared to control mean of $4.8	$6.4 increase in net inflow of loans compared to control mean of $7.7 (not statistically significant)
Dupas, Karlan, Robinson, and Ubfal (2018)	Chile, Malawi, and Uganda; rural; 6,242 households in total	Savings account	Minimum balance of $0-15	17-69%	6-42%	$1.4 increase in savings compared to control mean of $13.9 in Malawi, and $5 increase compared to $41 in Uganda	1 percentage point increase in probability of receiving formal loan (not statistically significant)
Breza and Chandrasekhar (2019)	India; rural; 3,000 individuals across 60 villages in Karnataka	Savings account	Minimum balance of $1.4	NR	NR	$4 increase in savings compared to control mean of $4.5	2 percentage point decrease in probability of taking a loan, 3 percentage point increase for borrowing from family and friends (neither statistically significant)
Aggarwal, Brailovskaya, and Robinson (2020)	Malawi; urban; 761 microentrepreneurs	Metal lockboxes and mobile money accounts	All fees were reimbursed	99%	94% for lockboxes and 73% for mobile money	$0.2 increase in savings for pooled treatment effect compared to control mean of $1.5	1 percentage point decrease in probability of taking a loan, $1 increase in value of credit taken for pooled treatment compared to control mean of $5.6 (neither statistically significant)

Notes: We reviewed all previous randomized field experiments in developing countries that study the impact of interventions involving access to savings accounts, and found 31 such studies. Among these, 5 papers report estimates of the impact on borrowing outcomes. This table summarizes the key characteristics of these 5 papers and the reported impacts on savings and borrowing. "NR" stands for not reported.

Table A2: Summary Statistics of Short-Term Debt at Baseline

	(1) Percent of individuals who have this type of debt	(2) Percent of total short-term debt
Service providers	20.75%	10.30%
Schools	14.85%	10.41%
Regular clients	8.97%	3.06%
Parents	7.78%	10.15%
Financieras	7.33%	27.28%
Suppliers	6.34%	2.99%
Friends	5.96%	3.21%
Siblings	5.67%	9.39%
Relatives	5.20%	3.50%
Sons and daughters	3.64%	4.43%
Partner	2.53%	2.19%
Doctors and health institutions	2.19%	3.27%
Cooperatives	2.14%	8.55%
Money lenders	1.08%	0.91%
Business contacts	0.68%	0.35%

Notes: Column (1) shows the percent of study participants who have this type of debt at baseline and Column (2) shows the percent of total short-term borrowing that the amount of this type of debt represents at baseline.

Description of short-term debt categories:

Debt to service providers includes outstanding payments of gas, electricity, etc. This usually does not extend beyond a few months because providers will cancel their service otherwise. Debt to schools may be incurred if a school offers a special payment plan with instalments spread throughout the academic year. Similar arrangements may be in place with doctors and health institutions. Indebtedness of individuals to their regular clients happens when the latter agree to advance payments. The inverse case leads to participants owing to their suppliers or other business contacts. Debt from parents, friends, siblings, children, partners or other relatives is typically interest-free in Chile. "Cooperatives" are civil society organizations for mutual self-help in areas ranging from health to financial services.

Table A3: Descriptive Statistics On Take-Up and Account Usage Among Treated Individuals

Panel A: Take-Up Statistics			
	Number of individuals	Total sample	Percent sample
Opened account	1,218	2,278	53%
Active user	895	2,278	39%
Panel B: Account Usage Conditional on Being an Active User			
	Mean	Median	Std. Dev.
Number of deposits	2.8	1.0	4.9
Amount deposited	56,721	4,000	207,987
Number of withdrawals	1	0	2
Amount withdrawn	47,489	0	150,745
Average end of month balance	18,269	5,000	77,303

Notes: This sample is restricted to participants who are included in the follow-up survey. Active user is defined as a participant who used the account beyond the minimum opening deposit of 1000 pesos. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009.

Table A4: Effects on Short-Term Borrowing, Additional Specifications

	(1) Total short-term borrowing	(2) Owed to family and friends	(3) Owed to service providers	(4) Owed to business contacts and institutions
Panel A: Probability of Any Borrowing				
Account × post	-0.047*	-0.063***	-0.034	0.008
	(0.027)	(0.022)	(0.023)	(0.018)
Control mean	0.375	0.174	0.206	0.122
Panel B: Categories of Borrowing				
Account × post	-0.130**	-0.074**	-0.058**	0.001
	(0.052)	(0.029)	(0.027)	(0.022)
Control mean	0.571	0.199	0.235	0.137
Panel C: Amounts (Winsorized at Top 5%)				
Account × post	-12,163**	-6,360***	303	-1,007
	(5,803)	(2,367)	(1,381)	(1,909)
Control mean	61,223	16,304	10,976	8,739
Panel D: Amounts (Winsorized at Top 1%)				
Account × post	-10,529	-12,317*	1,731	-2,784
	(11,622)	(6,269)	(2,782)	(5,395)
Control mean	88,464	35,671	16,628	23,150
Panel E: Amounts (Non-Winsorized)				
Account × post	-4,754	-11,083	5,286	2,233
	(15,704)	(9,637)	(6,492)	(9,667)
Control mean	98,223	43,324	21,255	33,644
Panel F: Inverse Hyperbolic Sine of Amount				
Account × post	-0.491	-0.730***	-0.142	-0.005
	(0.350)	(0.269)	(0.262)	(0.204)
Control mean	4.582	2.118	2.347	1.468
Individual FE	Yes	Yes	Yes	Yes
Individuals	3,551	3,535	3,537	3,545
Observations	7,102	7,070	7,074	7,090

Notes: Panel A shows the effect on the probability of any borrowing and Panel B on the number of categories of borrowing (for full description of the categories see Section 2.2). Panels C - F show different transformations of amounts borrowed. Column (1) displays the impact on total short-term borrowing, while Columns (2) - (4) present three different components of short-term borrowing. The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *p<0.1, **p<0.05, ***p<0.01.

Table A5: Borrowing - ANCOVA Estimation

	(1) Total short-term borrowing	(2) Owed to family and friends	(3) Owed to service providers	(4) Owed to business contacts and institutions
Panel A: Probability of Any Borrowing				
Account	-0.040*	-0.068***	-0.005	-0.002
	(0.021)	(0.016)	(0.015)	(0.012)
Control mean	0.375	0.174	0.206	0.122
Panel B: Categories of Borrowing				
Account	-0.097***	-0.076***	-0.008	-0.012
	(0.034)	(0.018)	(0.018)	(0.014)
Control mean	0.571	0.199	0.235	0.137
Panel C: Amounts (Winsorized at the Top 5%)				
Account	-15,235***	-7,318***	569	-1,335
	(4,089)	(1,772)	(981)	(887)
Control mean	61,223	16,304	10,976	8,739
Panel D: Amounts (Winsorized at the Top 1%)				
Account	-18,999**	-15,817***	931	-3,990
	(7,476)	(4,495)	(1,732)	(3,112)
Control mean	88,464	35,671	16,628	23,150
Panel E: Amounts (Non-Winsorized)				
Account	-12,735	-16,877***	4,377	257
	(10,461)	(6,224)	(4,043)	(6,777)
Control mean	98,223	43,324	21,255	33,644
Panel F: Inverse Hyperbolic Sine of Amount				
Account	-0.559**	-0.840***	-0.006	-0.076
	(0.261)	(0.198)	(0.176)	(0.140)
Control mean	4.582	2.118	2.347	1.468
Individual FE	No	No	No	No
Stratum FE	Yes	Yes	Yes	Yes
Observations	3,542	3,526	3,528	3,536

Notes: This table is produced using an ANCOVA specification. Panel A shows the effect on the probability of any borrowing and Panel B on the number of categories of borrowing. Panels C - F show different transformations of amounts borrowed. Column (1) displays the impact on total short-term borrowing, while Columns (2) - (4) present three different components of short-term borrowing. The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Stratum fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *p<0.1, **p<0.05, ***p<0.01.

Table A6: Effects on Long-Term Borrowing

	(1) Probability of any borrowing	(2) Categories of borrowing	(3) Amounts (winsorized at 5%)	(4) Amounts (winsorized at 1%)	(5) Amounts (non-winsorized)	(6) IHS of amounts
Account × post	0.0007	0.0007	-9,258	-17,488	-6,497	-0.1122
	(0.0151)	(0.0165)	(9,777)	(30,852)	(37,051)	(0.2205)
Control mean	0.166	0.171	90,180	184,111	202,401	2.218
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Individuals	3,545	3,545	3,536	3,536	3,536	3,536
Observations	7,090	7,090	7,072	7,072	7,072	7,072

Notes: Column (1) shows the effect on probability of any borrowing, Column (2) shows the effect on the number of categories of borrowers, while Columns (3) - (5) show the effects on amounts borrowed from these categories winsorized at 5%, 1% and non-winsorized amount respectively. Column (6) shows the effect on inverse hyperbolic transformation of the amount borrowed. The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *** p<0.01, ** p<0.05, * p<0.10.

Table A7: Probability of Experiencing an Economic Shock

	Economic shock
Account × post	-0.022
	(0.030)
Control mean	0.364
Individual FE	Yes
Individuals	3,582
Observations	7,164

Notes: This table shows estimates of the impact on the probability of experiencing an economic shock. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table A8: Consumption Cutbacks (Full Sample)

	(1) Meals	(2) Meat	(3) Medicines	(4) School supplies	(5) Clothing	(6) School snacks	(7) Public transport	(8) Eating out
Account × post	-0.014	-0.052*	-0.023	-0.008	0.008	-0.005	-0.052*	-0.014
	(0.016)	(0.029)	(0.022)	(0.019)	(0.032)	(0.014)	(0.030)	(0.032)
Control mean	0.109	0.410	0.212	0.107	0.482	0.073	0.366	0.380
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individuals	3,557	3,550	3,547	3,532	3,547	3,532	3,553	3,487
Observations	7,114	7,100	7,094	7,064	7,094	7,064	7,106	6,974
AES: -0.048 (0.041)								

Notes: Participants were asked whether they had to cut back consumption of eight different categories due to economic difficulties in the preceding three months. This table reports results for regressions where the outcome is a dummy that equals 1 when the answer is yes for a particular category. The average effect size (AES) for reduction in consumption cutbacks is reported in the final row of the table, which is calculated as discussed in Section 2.2. Individual fixed effects are included in each specification (including in the calculation of AES). Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.10.

Table A9: Consumption Cutbacks in the Face of Economic Shocks - ANCOVA Estimation

	(1) Meals	(2) Meat	(3) Medicines	(4) School supplies	(5) Clothing	(6) School snacks	(7) Public transport	(8) Eating out
Account	-0.009	-0.062**	-0.019	-0.014	-0.032	-0.024	-0.076**	-0.002
	(0.020)	(0.030)	(0.027)	(0.019)	(0.030)	(0.018)	(0.031)	(0.030)
Control mean	0.146	0.530	0.274	0.144	0.610	0.111	0.473	0.447
Individual FE	No	No	No	No	No	No	No	No
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,423	1,419	1,418	1,411	1,418	1,409	1,418	1,398
AES: -0.072* (0.041)								

Notes: This table is produced using an ANCOVA specification. Participants were asked whether they had to cut back consumption of eight different categories due to economic difficulties in the preceding three months. This table reports results for regressions where the outcome is a dummy that equals 1 when the answer is yes for a particular category. The sample is restricted to participants who report having faced an economic shock in the three months preceding the follow-up survey. The average effect size (AES) reported in the final row is calculated as discussed in Section 2.2. Stratum fixed effects are included in each specification (including in the calculation of AES). Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.10.

Table A10: Consumption Cutbacks using Triple Difference Estimation

Number of consumption cutbacks	
Account × economic shock × post	-0.379*
	(0.209)
Account × post	0.007
	(0.158)
Economic shock × post	0.877***
	(0.174)
Post	-0.472***
	(0.137)
Control mean	0.364
Individual FE	Yes
Individuals	3,575
Observations	7,150

Notes: This table shows estimates of the impact on the number of items for which consumption had to be reduced using a triple difference specification. Economic shock indicates participants who report facing an economic shock in the three months preceding the follow-up survey. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table A11: Effects on Lending, Additional Specifications

	(1) Total lending	(2) Lent to family and friends	(3) Lent to business contacts	(4) Total lending	(5) Lent to family and friends	(6) Lent to business contacts
Panel A: Probability of Any Lending						
Account × post × (baseline: regret not saving more)				-0.096**	-0.118***	-0.062
				(0.043)	(0.042)	(0.045)
Account × post	-0.024	-0.019	-0.015	0.040	0.060	0.028
	(0.024)	(0.024)	(0.022)	(0.039)	(0.038)	(0.040)
Control mean	0.541	0.255	0.406	0.541	0.255	0.406
Panel B: Categories of Lending						
Account × post × (baseline: regret not saving more)				-0.222***	-0.151**	-0.085
				(0.085)	(0.064)	(0.055)
Account × post	-0.087*	-0.050	-0.025	0.062	0.050	0.034
	(0.050)	(0.036)	(0.026)	(0.078)	(0.058)	(0.048)
Control mean	0.759	0.321	0.439	0.759	0.321	0.439
Panel C: Amounts (Winsorized at the Top 5%)						
Account × post × (baseline: regret not saving more)				-27,775**	-18,568***	-6,810
				(11,515)	(6,862)	(5,889)
Account × post	-3,344	-5,668	2,137	15,740	6,799	7,129
	(5,777)	(3,440)	(2,787)	(10,238)	(6,028)	(4,989)
Control mean	81,813	31,574	38,421	81,813	31,574	38,421
Panel D: Amounts (Winsorized at the Top 1%)						
Account × post × (baseline: regret not saving more)				-62,758***	-32,046**	-16,915
				(19,815)	(14,050)	(10,543)
Account × post	-563	-4,223	2,923	42,197**	16,670	15,445*
	(9,678)	(6,450)	(4,906)	(17,241)	(11,419)	(9,041)
Control mean	101,960	46,090	51,178	101,960	46,090	51,178
Panel E: Non-Winsorized Amounts						
Account × post × (baseline: regret not saving more)				-67,008**	-26,889	-40,830**
				(29,874)	(26,009)	(16,095)
Account × post	2,013	6,998	-4,614	47,502**	24,009	24,386**
	(16,420)	(14,001)	(8,617)	(21,198)	(16,921)	(12,333)
Control mean	115,434	56,358	59,076	115,434	56,358	59,076
Panel F: Inverse Hyperbolic Sine of Amount						
Account × post × (baseline: regret not saving more)				-1.565**	-1.655**	-1.051*
				(0.520)	(0.499)	(0.517)
Account × post	-0.195	-0.229	-0.017	0.883	0.890	0.733
	(0.289)	(0.281)	(0.246)	(0.478)	(0.455)	(0.453)
Control mean	6.479	3.046	4.710	6.479	3.046	4.710
Post × (baseline: regret not saving more)	No	No	No	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Individuals	3,555	3,542	3,535	3,510	3,497	3,490
Observations	7,110	7,084	7,070	7,020	6,994	6,980

Notes: This table shows estimations of the impact on lending. Panel A shows the effect on the probability of any lending and Panel B on categories of recipients to which participants lend money. Panel C, D, and E on the amount lent winsorized at 5%, 1% and non-winsorized respectively. Panel F on the inverse hyperbolic sine (IHS) of the amount lent. Columns (1), (2), and (3) present the effect on total lending and its two components, lending to friends and family and lending to business contacts. Columns (4), (5) and (6) present the same outcomes for the subgroup of people who always or frequently regretted not saving more at baseline. The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in

Table A12: Effects on Lending - ANCOVA Estimation

	(1) Total lending	(2) Lent to family and friends	(3) Lent to business contacts	(4) Total lending	(5) Lent to family and friends	(6) Lent to business contacts
Panel A: Probability of Any Lending						
Account × (baseline: regret not saving more)				-0.083**	-0.082***	-0.056
				(0.034)	(0.031)	(0.035)
Account	-0.013	-0.016	-0.004	0.043	0.037	0.034
	(0.020)	(0.017)	(0.018)	(0.031)	(0.027)	(0.030)
Control mean	0.541	0.255	0.406	0.541	0.255	0.406
Panel B: Categories of Lending						
Account × (baseline: regret not saving more)				-0.160***	-0.095**	-0.072*
				(0.060)	(0.043)	(0.041)
Account	-0.040	-0.028	-0.005	0.066	0.034	0.044
	(0.034)	(0.023)	(0.021)	(0.053)	(0.038)	(0.035)
Control mean	0.759	0.321	0.439	0.759	0.321	0.439
Panel C: Amounts (Winsorized at the Top 5%)						
Account × (baseline: regret not saving more)				-22,423**	-8,487	-8,438
				(10,320)	(5,291)	(5,488)
Account	626	-2,211	2,307	16,167*	3,346	8,435*
	(5,019)	(2,524)	(2,698)	(8,878)	(4,372)	(4,708)
Control mean	81,813	31,574	38,421	81,813	31,574	38,421
Panel D: Amounts (Winsorized at the Top 1%)						
Account × (baseline: regret not saving more)				-46,969***	-14,339	-18,322*
				(16,914)	(10,802)	(10,097)
Account	6,361	3,343	3,452	38,885***	12,571	16,984**
	(8,321)	(4,987)	(4,759)	(13,989)	(8,031)	(8,629)
Control mean	101,960	46,090	51,178	101,960	46,090	51,178
Panel E: Non-Winsorized Amounts						
Account × (baseline: regret not saving more)				-50,363**	-7,589	-40,847***
				(24,864)	(19,985)	(15,023)
Account	9,540	11,456	-1,518	44,373***	15,932	27,625**
	(13,984)	(11,329)	(8,271)	(16,106)	(11,006)	(11,203)
Control mean	115,434	56,358	59,076	115,434	56,358	59,076
Panel F: Inverse Hyperbolic Sine of Amount						
Account × (baseline: regret not saving more)				-1.198**	-0.987**	-0.808*
				(0.411)	(0.371)	(0.408)
Account	-0.124	-0.186	0.018	0.688	0.463	0.577
	(0.237)	(0.202)	(0.212)	(0.373)	(0.320)	(0.359)
Control mean	6.479	3.046	4.710	6.479	3.046	4.710
Post × (baseline: regret not saving more)	No	No	No	Yes	Yes	Yes
Individual FE	No	No	No	No	No	No
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,555	3,542	3,535	3,510	3,497	3,490

Notes: This table is produced using an ANCOVA specification and shows estimations of lending to others. Panel A shows the effect on the probability of any lending and Panel B on categories of recipients to which participants lend money. Panel C, D, and E on amount lent winsorized at 5%, 1% and non-winsorized respectively. Panel F on the inverse hyperbolic sine (IHS) of the amount lent. Columns (1), (2), and (3) present the effect on total lending and its two components, lending to friends and family and lending to business contacts. Columns (4), (5) and (6) present the same outcomes for the subgroup of people who always or frequently regretted not saving more at baseline. The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Stratum fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *** p<0.01, ** p<0.05, * p<0.10.

Table A13: Effects on Total Savings, Additional Specifications

	(1) Categories	(2) Probability of any savings	(3) Amounts (win-sorized at 5%)	(4) Amounts (win-sorized at 1%)	(5) Amounts (non-winsorized)	(6) IHS of amounts
Panel A: Total Financial Savings						
Account × post	0.324***	0.120***	-13,703	−35,601***	−61,132***	0.910***
	(0.069)	(0.027)	(8,982)	(12,875)	(18,776)	(0.341)
Control mean	1.466	0.740	183,269	219,887	245,162	9.358
Individuals	3,555	3,555	3,555	3,555	3,555	3,555
Observations	7,110	7,110	7,110	7,110	7,110	7,110
Panel B: Net Total Financial Savings (incl. Borrowing)						
Account × post		0.082***	14,797	-8,361	-43,257	1.064**
		(0.025)	(16,440)	(37,623)	(44,349)	(0.524)
Control mean		0.554	-330	-60,427	-55,462	2.980
Individuals		3,577	3,577	3,577	3,577	3,577
Observations		7,154	7,154	7,154	7,154	7,154
Panel C: Total Financial Assets (incl. Borrowing and Lending)						
Account × post		0.057**	8,395	-11,980	-39,300	0.693
		(0.023)	(18,093)	(38,691)	(46,570)	(0.524)
Control mean		0.656	99,801	56,479	59,972	5.203
Individuals		3,580	3,580	3,580	3,580	3,580
Observations		7,160	7,160	7,160	7,160	7,160
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Panel A shows total financial savings (see Section 2.3 for categories included in total financial savings). Net total financial savings in Panel B is total financial savings minus total financial debt. Net total financial assets in Panel C is total financial savings minus total financial debt plus total lending as a form of saving. Column (1) displays the number of categories of savings, Column (2) shows the effect of the probability of any savings, Columns (3) - (5) on the amount of savings winsorized at 5%, 1% and non-winsorized amounts respectively and Column (6) on the inverse hyperbolic sine (IHS) transformation of the amount of saving. Number of categories are not shown in Panels B and C since counting categories of savings minus categories of debt does not have a very meaningful interpretation. Winsorization is at the top for variables that are strictly positive (Panel A), and at the top and bottom for variables that can take negative values (Panels B and C). Number of observations varies slightly since the aggregated variables only have a missing value if the values of each component is missing. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *p<0.1, **p<0.05, ***p<0.01.

Table A14: Effects on Total Savings - ANCOVA Estimation

	(1) Categories	(2) Probability of any savings	(3) Amounts (win-sorized at 5%)	(4) Amounts (win-sorized at 1%)	(5) Amounts (non-winsorized)	(6) IHS of amounts
Panel A: Total Financial Savings						
Account	0.360***	0.099***	−18,523**	−42,846***	−66,790***	0.667***
	(0.051)	(0.017)	(7,370)	(10,483)	(14,233)	(0.215)
Control mean	1.466	0.740	183,269	219,887	245,162	9.358
Observations	3,546	3,546	3,546	3,546	3,546	3,546
Panel B: Net Total Financial Savings (incl. Borrowing)						
Account		0.077***	14,008	-3,477	-39,197	1.131***
		(0.018)	(13,346)	(25,649)	(30,874)	(0.411)
Control mean		0.554	-330	-60,427	-55,462	2.980
Observations		3,568	3,568	3,568	3,568	3,568
Panel C: Total Financial Assets (incl. Borrowing and Lending)						
Account		0.055***	8,983	-5,075	-32,705	0.796*
		(0.017)	(14,976)	(26,579)	(32,604)	(0.410)
Control mean		0.656	99,801	56,479	59,972	5.203
Observations		3,571	3,571	3,571	3,571	3,571
Stratum FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table is produced using an ANCOVA specification. Panel A shows total financial savings. Net total financial savings in Panel B is total financial savings minus total financial debt. Net total financial assets in Panel C is total financial savings minus total financial debt plus total lending as a form of saving. Column (1) displays the number of categories of savings, Column (2) shows the effect on the probability of any saving, Columns (3) - (5) on the amount of savings winsorized at 5%, 1% and non-winsorized amounts respectively. Column (6) shows the effect on inverse hyperbolic sine transformation of the amount of saving. Number of categories are not shown in Panels B and C since counting categories of savings minus categories of debt does not have a very meaningful interpretation. Winsorization is at the top for variables that are strictly positive (Panel A), and at the top and bottom for variables that can take negative values (Panels B and C). Number of observations varies slightly since the aggregated variables only have a missing value if the values of each component is missing. Stratum fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *p<0.1, **p<0.05, ***p<0.01.

Table A15: Effects on Total Self-Reported Savings

	(1) Categories	(2) Probability of any savings	(3) Amounts (win-sorized at 5%)	(4) Amounts (win-sorized at 1%)	(5) Amounts (non-winsorized)	(6) IHS of amounts
Panel A: Total Financial Savings						
Account × post	0.246***	0.088***	-13,423	−35,702***	−61,948***	0.690**
	(0.069)	(0.027)	(9,055)	(12,914)	(18,803)	(0.344)
Control mean	1.483	0.742	185,597	221,751	247,257	9.394
Individuals	3,563	3,555	3,555	3,555	3,555	3,555
Observations	7,126	7,110	7,110	7,110	7,110	7,110
Panel B: Net Total Financial Savings (incl. Borrowing)						
Account × post		0.062**	15,774	-9,654	-44,088	0.949*
		(0.025)	(16,679)	(37,640)	(44,294)	(0.523)
Control mean		0.557	167	-60,779	-53,368	3.032
Individuals		3,577	3,577	3,577	3,577	3,577
Observations		7,154	7,154	7,154	7,154	7,154
Panel C: Total Financial Assets (incl. Borrowing and Lending)						
Account × post		0.043*	8,970	-13,364	-40,131	0.610
		(0.023)	(18,402)	(38,731)	(46,515)	(0.525)
Control mean		0.656	99,871	57,504	62,067	5.219
Individuals		3,580	3,580	3,580	3,580	3,580
Observations		7,160	7,160	7,160	7,160	7,160
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table is the same as Table 5, except that instead of administrative data for savings in the Fondo Esperanza account, it uses the survey responses. All other components of savings are based on survey responses in both Table 5 and this table. Panel A shows total financial savings (see Section 2.3 for categories included in total financial savings). Net total financial savings in Panel B is total financial savings minus total financial debt. Net total financial assets in Panel C is total financial savings minus total financial debt plus total lending as a form of saving. Column (1) displays the number of categories of savings. Column (2) shows the effect on the probability of any saving. Columns (3) - (5) on savings amount winsorized at 5%, 1% and non-winsorized respectively and Column (6) on the inverse hyperbolic (IHS) of savings amount. Number of categories are not shown in Panels B and C since counting categories of savings minus categories of debt does not have a very meaningful interpretation. Winsorization is at the top for variables that are strictly positive (Panel A), and at the top and bottom for variables that can take negative values (Panels B and C). Number of observations varies slightly since the aggregated variables only have a missing value if the values of each component is missing. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *p<0.1, **p<0.05, ***p<0.01.

Table A16: Probability of Reporting Round Savings Amounts

	(1)	(2)	(3)	(4)	(5)
Account × post	-0.038	-0.066**	-0.088**	-0.199***	-0.277***
	(0.028)	(0.033)	(0.045)	(0.076)	(0.092)
Individual FE	Yes	Yes	Yes	Yes	Yes
Individuals	3,555	1,726	789	302	158
Observations	7,110	3,452	1,578	604	316
Sample	Full	Above P50	Above P75	Above P90	Above P95

Notes: This table shows the effect of the intervention on the probability that respondents report a round number (defined as a multiple of 10,000 Chilean pesos) as their total savings (excluding savings in the FE account). Columns (2)-(5) report estimates for subsamples of respondents who at baseline reported savings above the median, and above percentiles 75, 90, and 95 respectively. Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table A17: Subjective Well-Being - ANCOVA Estimation

	(1) Anxiety about financial future	(2) Recent economic difficulty
Account	-0.086**	-0.108
	(0.041)	(0.104)
Control mean	2.803	5.429
Individual FE	No	No
Stratum FE	Yes	Yes
Observations	3,510	3,507
AES: -0.066* (0.035)		

Notes: This table is produced using an ANCOVA specification. Both "anxiety about financial future" and "recent economic difficulty" are expressed in standard deviations. The overall average effect size (AES) on well-being is reported in the final row of the table. Individuals are excluded in case of non-response to a particular question, which explains the differences in the number of observations. Stratum fixed effects are included in each specification (including the calculation of AES). Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table A18: Effect of Job Loss and Business Downturn on Subjective Well-Being

	(1) Future anxiety	(2) Economic difficulty
Panel A: Job Loss		
Job loss × post	0.080	0.119**
	(0.060)	(0.057)
Control mean	-0.126	0.112
Panel B: Business Downturn		
Business downturn × post	0.197***	0.176***
	(0.045)	(0.044)
Control mean	-0.126	0.112
Individual FE	Yes	Yes
Individuals	3,519	3,515
Observations	7,038	7,030

Notes: The dependent variable in Column (1) is anxiety about financial future and in Column (2) is recent economic difficulty, both expressed in standard deviations. Individuals are excluded in case of non-response to a particular question, which explains the differences in the number of observations. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table A19: Effects on Household Dynamics and Bulky Expenditure

	Family Dynamics					Bulky Expenditures		
	(1) Decisions about saving	(2) Savings hidden from family	(3) Savings hidden from partner	(4) Borrowed from partner	(5) Conflicts with partner	(6) Electronics	(7) Business investment/ equipment	(8) Home improvements
Account × post	0.017	-0.020	0.012	-0.026	0.011	0.030	-0.015	0.020
	(0.021)	(0.027)	(0.021)	(0.020)	(0.021)	(0.019)	(0.025)	(0.023)
Control mean	0.594	0.270	0.162	0.169	0.160	0.119	0.325	0.308
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individuals	3,431	3,386	3,432	3,555	3,554	3,521	3,532	3,534
Observations	6,862	6,772	6,864	7,110	7,108	7,042	7,064	7,068

Notes: Columns (1) to (5) show the impact on variables relating to family dynamics. The dependent variable in Column (1) takes value 1 if the respondent makes decisions regarding savings in the household, and 0 otherwise. Columns (2) and (3) show whether any savings are hidden from a family member or partner respectively. Columns (4) and (5) show if any money was borrowed from a partner or if there was conflict over money with a partner. Columns (6), (7), and (8) show variables on bulky expenditures in the previous three months, whether there were any electronics purchased, investments made in a business or equipment, and expenditure on home improvements, respectively. Individuals are excluded in case of non-response to a particular question, which explains the differences in the number of observations. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table A20: Demand Effects

	(1) Difficulty of survey process	(2) Satisfaction with FE
Account	0.049	-0.027
	(0.037)	(0.048)
Individual FE	No	No
Stratum FE	Yes	Yes
Observations	3,356	3,564

Notes: Participants were asked to rate how complicated they found the survey process (scale of 1 to 4) and how satisfied they were with Fondo Esperanza (scale of 1 to 7) in the follow-up survey. This table reports the impact of treatment on these outcomes. Individuals are excluded in case of non-response to a particular question, which explains the differences in the number of observations. Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table A21: Lee Bounds

	(1) Short-term borrowing amount	(2) Short-term borrowing categories	(3) Anxiety about financial future	(4) Recent economic difficulty
Point estimate	-12,163**	-0.130**	-0.112*	-0.086*
Lower bound	[-13,931	[-0.149	[-0.171	[-0.131
Upper bound	-3,784]	-0.069]	-0.074]	-0.054]
Individuals after trimming	3,509	3,512	3,477	3,473
Observations after trimming	7,018	7,024	6,954	6,946

Notes: Lee bounds for the main results from Tables 2 and 6, calculated using the methodology discussed in Section 3.3. Rows 2 and 3 show the Lee bounds. The bounds cannot be calculated for the improvements in consumption smoothing in case of economic shocks (Table 3), since by construction, we do not know which attritors had shocks. The first row shows the point estimates from the original regression. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *** p<0.01, ** p<0.05, * p<0.1.

Table A22: Inverse Probability Weighting

	(1) Total short-term borrowing amount	(2) Total short-term borrowing categories	(3) Anxiety about financial future	(4) Recent economic difficulty	(5) Consumption cutback categories
Account × post	-11,806**	-0.111**	-0.111*	-0.083	-0.363*
	(5,808)	(0.052)	(0.059)	(0.052)	(0.188)
Control mean	61,223	0.571	-0.126	0.112	2.138
Individual FE	Yes	Yes	Yes	Yes	Yes
Individuals	3,551	3,554	3,519	3,515	1,433
Observations	7,102	7,108	7,038	7,030	2,866

Notes: Regressions for the key results from Tables 2, 3 and 6, weighted using the inverse probability weights described in Section 3.3. In constructing the propensity score, missing co-variates were imputed as the mean of that covariate. The outcome variable in Column (5) is the total number of categories of spending a participant had to cut back on and the sample is the same as in Table 3. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. Level of significance: *** p<0.01, ** p<0.05, * p<0.10.

Table A23: Borrowing Heterogeneity - Part 1

	(1) Total short-term borrowing	(2) Total short-term borrowing	(3) Total short-term borrowing	(4) Total short-term borrowing	(5) Total short-term borrowing	(6) Total short-term borrowing	(7) Total short-term borrowing	(8) Owed to family and friends	(9) Owed to service providers	(10) Owed to business contacts and institutions
Panel A: Probability of Any Borrowing										
Account × post × regret not saving more		-0.052					-0.060	0.031	-0.077**	-0.061*
		(0.045)					(0.045)	(0.040)	(0.038)	(0.035)
Account × post × already has bank account			-0.008				-0.008	-0.014	0.006	-0.052*
			(0.047)				(0.046)	(0.036)	(0.041)	(0.031)
Account × post × socially taxed				-0.066			-0.055	-0.016	-0.049	-0.024
				(0.050)			(0.051)	(0.034)	(0.042)	(0.044)
Account × post × household conflicts					-0.018		-0.009	-0.035	-0.008	0.044
					(0.050)		(0.051)	(0.043)	(0.044)	(0.040)
Account × post × economic shock						-0.032	-0.033	-0.062	-0.022	-0.002
						(0.049)	(0.049)	(0.038)	(0.042)	(0.038)
Account × post	-0.047*	-0.008	-0.046	-0.030	-0.043	-0.032	0.029	-0.040	0.047	0.058
	(0.027)	(0.042)	(0.031)	(0.030)	(0.031)	(0.034)	(0.052)	(0.043)	(0.041)	(0.037)
Control mean	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.174	0.206	0.122
Panel B: Categories of Borrowing										
Account × post × regret not saving more		-0.106					-0.134	0.006	-0.091*	-0.054
		(0.087)					(0.088)	(0.049)	(0.048)	(0.042)
Account × post × already has bank account			-0.078				-0.056	-0.000	-0.020	-0.034
			(0.091)				(0.089)	(0.048)	(0.049)	(0.039)
Account × post × socially taxed				-0.120			-0.073	0.003	-0.027	-0.047
				(0.093)			(0.095)	(0.044)	(0.055)	(0.051)
Account × post × household conflicts					-0.063		-0.026	-0.030	-0.029	0.038
					(0.104)		(0.106)	(0.063)	(0.053)	(0.047)
Account × post × economic shock						-0.142	-0.145	-0.099*	-0.028	-0.012
						(0.092)	(0.096)	(0.051)	(0.053)	(0.044)
Account × post	-0.130**	-0.053	-0.108*	-0.095	-0.117**	-0.070	0.069	-0.034	0.045	0.054
	(0.052)	(0.076)	(0.061)	(0.060)	(0.056)	(0.064)	(0.097)	(0.055)	(0.048)	(0.042)
Control mean	0.571	0.571	0.571	0.571	0.571	0.571	0.571	0.199	0.235	0.137
Panel C: Amounts (Winsorized at the Top 5%)										
Account × post × regret not saving more		2,878					1,469	6,395*	-2,666	-5,772
		(10,553)					(11,028)	(3,714)	(2,622)	(3,586)
Account × post × already has bank account			585				-840	-4,276	2,088	-675
			(11,273)				(11,209)	(3,540)	(2,556)	(3,253)
Account × post × socially taxed				-30,929***			-29,452**	-5,470	-3,798	-5,508
				(11,825)			(12,213)	(3,641)	(3,067)	(3,930)
Account × post × household conflicts					-18,932		-13,385	-2,059	-1,105	2,052
					(11,956)		(12,666)	(4,803)	(2,965)	(4,045)
Account × post × economic shock						-12,120	-11,657	-4,821	1,074	-1,851
						(10,226)	(10,755)	(4,005)	(2,646)	(3,725)
Account × post	-12,163**	-14,298	-11,593	-4,149	-7,369	-6,887	3,361	-5,044	2,544	4,377
	(5,803)	(9,396)	(7,147)	(7,089)	(6,318)	(7,458)	(11,624)	(4,233)	(2,710)	(3,533)
Control mean	61,223	61,223	61,223	61,223	61,223	61,223	61,223	16,304	10,976	8,739
Panel D: Amounts (Winsorized at the Top 1%)										
Account × post × regret not saving more		-3,156					-15,698	15,944*	-862	-17,717*
		(24,489)					(24,331)	(9,497)	(5,778)	(10,606)
Account × post × already has bank account			22,818				18,640	343	4,003	3,204
			(24,049)				(23,841)	(10,533)	(5,668)	(10,632)
Account × post × socially taxed				-73,893***			-70,179***	-21,558**	-5,956	-26,544**
				(21,816)			(23,373)	(10,545)	(6,315)	(11,812)
Account × post × household conflicts					-23,833		-8,399	-11,315	-7,186	5,313
					(24,969)		(25,706)	(13,525)	(6,513)	(11,781)
Account × post × economic shock						-19,639	-14,259	-12,404	855	-8,353
						(20,748)	(21,892)	(10,085)	(5,722)	(10,863)
Account × post	-10,529	-8,663	-13,504	8,568	-3,966	-2,127	23,733	-7,887	4,872	16,399
	(11,622)	(19,854)	(14,568)	(13,977)	(13,025)	(14,964)	(23,616)	(11,002)	(5,615)	(9,996)
Control mean	88,464	88,464	88,464	88,464	88,464	88,464	88,464	35,671	16,628	23,150

Borrowing Heterogeneity - Part 2

	(1) Total short-term borrowing	(2) Total short-term borrowing	(3) Total short-term borrowing	(4) Total short-term borrowing	(5) Total short-term borrowing	(6) Total short-term borrowing	(7) Total short-term borrowing	(8) Owed to family and friends	(9) Owed to service providers	(10) Owed to business contacts and institutions
Panel E: Non-Winsorized Amounts										
Account × post × regret not saving more		1,845					-11,946	7,033	651	-19,705
		(32,401)					(32,923)	(18,512)	(12,245)	(20,524)
Account × post × already has bank account			16,184				13,432	11,885	13,972	-12,520
			(33,846)				(34,131)	(19,897)	(15,586)	(22,578)
Account × post × socially taxed				-87,171***			-76,305**	-23,914	-11,912	-40,460
				(27,108)			(32,742)	(16,354)	(12,631)	(25,153)
Account × post × household conflicts					-39,647		-18,432	-30,497	-14,466	26,598
					(33,399)		(36,742)	(24,592)	(16,157)	(22,647)
Account × post × economic shock						-11,758	-1,402	659	4,247	-6,214
						(31,752)	(32,220)	(18,402)	(13,394)	(21,257)
Account × post	-4,754	-6,194	-3,033	18,029	6,335	428	30,264	-3,360	7,256	26,383
	(15,704)	(24,929)	(22,019)	(19,121)	(17,628)	(19,756)	(30,067)	(18,806)	(15,509)	(16,393)
Control mean	98,223	98,223	98,223	98,223	98,223	98,223	98,223	43,324	21,255	33,644
Panel F: Inverse Hyperbolic Sine of Amount										
Account × post × regret not saving more		-0.401					-0.551	0.412	-0.657	-0.529
		(0.569)					(0.566)	(0.453)	(0.437)	(0.408)
Account × post × already has bank account			0.384				0.394	0.050	0.334	-0.334
			(0.568)				(0.555)	(0.395)	(0.451)	(0.360)
Account × post × socially taxed				-0.974			-0.915	-0.389	-0.607	-0.545
				(0.625)			(0.645)	(0.407)	(0.511)	(0.493)
Account × post × household conflicts					-0.304		-0.165	-0.179	-0.111	0.523
					(0.577)		(0.597)	(0.520)	(0.479)	(0.442)
Account × post × economic shock						-0.636	-0.611	-0.987*	-0.042	-0.017
						(0.575)	(0.582)	(0.447)	(0.461)	(0.426)
Account × post	-0.491	-0.202	-0.629	-0.230	-0.449	-0.207	0.269	-0.458	0.438	0.429
	(0.350)	(0.516)	(0.388)	(0.403)	(0.383)	(0.418)	(0.614)	(0.490)	(0.467)	(0.413)
Control mean	4.582	4.582	4.582	4.582	4.582	4.582	4.582	2.118	2.347	1.468
Post × regret not saving more	No	Yes	No	No	No	No	Yes	Yes	Yes	Yes
Post × already has bank account	No	No	Yes	No	No	No	Yes	Yes	Yes	Yes
Post × socially taxed	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes
Post × household conflicts	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes
Post × economic shock	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individuals	3,551	3,505	3,437	3,524	3,525	3,551	3,349	3,349	3,344	3,349
Observations	7,102	7,010	6,874	7,048	7,050	7,102	6,698	6,698	6,688	6,698

Notes: This table shows estimations of the impact on short-term borrowing for five subgroups. The first four subgroups are pre-treatment variables. The fifth subgroup refers to whether the respondent experienced an economic shock in the three months preceding the follow-up survey. Panel A shows the effect on the probability of any borrowing. Panel B on the number of categories of borrowing (for full description of the categories see Section 2.2). Panels C - F show different transformations of amounts borrowed. Columns (1) - (7) present the effect on total short-term borrowing with different sets of interaction terms, while Columns (8) - (10) show the effect on the three components of borrowing, borrowing from friends and family, from service providers, and from business contacts. The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *** p<0.01, ** p<0.05, * p<0.10.

Table A24: Lending Heterogeneity - Part 1

	(1) Total lending	(2) Total lending	(3) Total lending	(4) Total lending	(5) Total lending	(6) Total lending	(7) Total lending	(8) Lent to family and friends	(9) Lent to business contacts
Panel A: Probability of Any Lending									
Account × post × regret not saving more		-0.110**					-0.113***	-0.103***	-0.069
		(0.043)					(0.043)	(0.037)	(0.046)
Account × post × already has bank account			-0.034				-0.044	-0.053	-0.051
			(0.048)				(0.046)	(0.037)	(0.045)
Account × post × socially taxed				0.006			0.005	0.038	-0.078
				(0.041)			(0.042)	(0.038)	(0.050)
Account × post × household conflicts					0.007		0.028	-0.018	-0.015
					(0.047)		(0.046)	(0.041)	(0.043)
Account × post × economic shock						-0.018	-0.016	-0.020	0.008
						(0.041)	(0.040)	(0.032)	(0.041)
Account × post	-0.023	0.052	-0.016	-0.024	-0.026	-0.015	0.060	0.072*	0.064
	(0.025)	(0.039)	(0.030)	(0.028)	(0.029)	(0.030)	(0.048)	(0.041)	(0.050)
Control mean	0.541	0.541	0.541	0.541	0.541	0.541	0.541	0.255	0.406
Panel B: Categories of Lending									
Account × post × regret not saving more		-0.244***					-0.219***	-0.137**	-0.087
		(0.084)					(0.081)	(0.058)	(0.056)
Account × post × already has bank account			-0.172*				-0.172**	-0.131**	-0.042
			(0.097)				(0.086)	(0.062)	(0.052)
Account × post × socially taxed				-0.035			-0.003	0.063	-0.060
				(0.096)			(0.096)	(0.072)	(0.060)
Account × post × household conflicts					-0.117		-0.054	-0.038	-0.009
					(0.096)		(0.089)	(0.070)	(0.054)
Account × post × economic shock						-0.053	-0.061	-0.041	-0.012
						(0.088)	(0.085)	(0.060)	(0.050)
Account × post	-0.076	0.090	-0.030	-0.063	-0.046	-0.056	0.160*	0.097	0.065
	(0.052)	(0.079)	(0.060)	(0.050)	(0.058)	(0.061)	(0.087)	(0.061)	(0.058)
Control mean	0.759	0.759	0.759	0.759	0.759	0.759	0.759	0.321	0.439
Panel C: Amounts (Winsorized at the Top 5%)									
Account × post × regret not saving more		-28,648**					-22,401**	-17,822***	-3,499
		(11,346)					(11,296)	(6,723)	(5,752)
Account × post × already has bank account			-2,154				-3,667	-3,383	-4,385
			(12,139)				(11,652)	(6,861)	(5,720)
Account × post × socially taxed				8,382			8,445	10,062	-7,141
				(13,883)			(13,893)	(8,225)	(6,948)
Account × post × household conflicts					-4,220		-2,702	2,044	-3,056
					(11,654)		(11,465)	(6,556)	(6,314)
Account × post × economic shock						-30,665***	-32,205***	-16,866***	-5,519
						(9,943)	(10,338)	(5,994)	(5,759)
Account × post	-1,711	18,271*	-849	-3,175	-1,093	10,657*	27,249**	11,676*	12,451**
	(5,760)	(10,093)	(6,940)	(5,975)	(6,530)	(6,310)	(10,898)	(6,483)	(5,682)
Control mean	81,813	81,813	81,813	81,813	81,813	81,813	81,813	31,574	38,421
Panel D: Amounts (Winsorized at the Top 1%)									
Account × post × regret not saving more		-65,219***					-51,480***	-32,471**	-8,777
		(19,263)					(18,698)	(13,634)	(9,799)
Account × post × already has bank account			-3,166				-7,518	-1,221	-6,234
			(20,900)				(19,423)	(14,510)	(9,543)
Account × post × socially taxed				15,871			12,654	13,857	-7,604
				(22,947)			(23,323)	(17,369)	(11,217)
Account × post × household conflicts					-17,860		-15,551	-5,938	-2,958
					(19,917)		(19,479)	(13,982)	(10,327)
Account × post × economic shock						-49,837***	-49,045***	-28,869**	-11,691
						(17,483)	(18,763)	(13,533)	(10,256)
Account × post	1,648	46,682***	2,384	-1,947	5,668	21,758**	59,938***	29,185**	20,117**
	(9,661)	(17,001)	(11,452)	(9,664)	(10,692)	(10,488)	(16,981)	(12,322)	(9,888)
Control mean	101,960	101,960	101,960	101,960	101,960	101,960	101,960	46,090	51,178

Lending Heterogeneity - Part 2

	(1) Total lending	(2) Total lending	(3) Total lending	(4) Total lending	(5) Total lending	(6) Total lending	(7) Total lending	(8) Lent to family and friends	(9) Lent to business contacts
Panel E: Non-Winsorized Amounts									
Account × post × regret not saving more		-68,827**					-46,130	-24,879	-21,206
		(28,585)					(27,994)	(23,361)	(15,014)
Account × post × already has bank account			8,928				-2,057	15,749	-17,660
			(33,666)				(31,910)	(28,731)	(15,809)
Account × post × socially taxed				70,675*			74,694*	56,877	17,611
				(41,348)			(43,348)	(37,183)	(19,827)
Account × post × household conflicts					-37,027		-36,686	-19,176	-17,466
					(37,857)		(37,484)	(32,908)	(20,231)
Account × post × economic shock						-106,798***	-112,463***	-75,663***	-36,811**
						(30,696)	(33,535)	(28,291)	(18,407)
Account × post	6,293	53,700***	3,694	-10,696	15,889	49,629***	76,770***	40,329*	36,355***
	(15,980)	(20,697)	(19,853)	(15,575)	(16,272)	(18,801)	(25,066)	(22,596)	(13,560)
Control mean	115,434	115,434	115,434	115,434	115,434	115,434	115,434	56,358	59,076
Panel F: Inverse Hyperbolic Sine of Amount									
Account × post × regret not saving more		-1.725***					-1.674**	-1.462**	-1.026
		(0.514)					(0.531)	(0.449)	(0.537)
Account × post × already has bank account			-0.322				-0.414	-0.335	-0.523
			(0.561)				(0.544)	(0.448)	(0.517)
Account × post × socially taxed				0.172			0.194	0.771	-0.775
				(0.547)			(0.557)	(0.544)	(0.604)
Account × post × household conflicts					-0.040		0.164	-0.482	-0.296
					(0.574)		(0.566)	(0.488)	(0.517)
Account × post × economic shock						-0.446	-0.420	-0.425	-0.191
						(0.501)	(0.494)	(0.382)	(0.502)
Account × post	-0.159	1.048*	-0.107	-0.193	-0.187	0.021	1.151*	0.999*	1.221*
	(0.303)	(0.480)	(0.359)	(0.337)	(0.346)	(0.360)	(0.576)	(0.486)	(0.569)
Control mean	6.479	6.479	6.479	6.479	6.479	6.479	6.479	3.046	4.710
Post × regret not saving more	No	Yes	No	No	No	No	Yes	Yes	Yes
Post × already has bank account	No	No	Yes	No	No	No	Yes	Yes	Yes
Post × socially taxed	No	No	No	Yes	No	No	Yes	Yes	Yes
Post × household conflicts	No	No	No	No	Yes	No	Yes	Yes	Yes
Post × economic shock	No	No	No	No	No	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individuals	3,564	3,519	3,445	3,524	3,538	3,564	3,349	3,349	3,339
Observations	7,128	7,038	6,890	7,048	7,076	7,128	6,698	6,698	6,678

Notes: This table shows estimations of the impact on lending for five subgroups. The first four subgroups are pre-treatment variables. The fifth subgroup refers to whether the respondent experienced an economic shock in the three months preceding the follow-up survey. Panel A shows the effect on the probability of any lending. Panel B on the number of categories of recipients to which participants lend money. Panels C, D, and E on the amount lent winsorized at 5%, 1%, and non-winsorized respectively. Panel F on the inverse hyperbolic sine (IHS) of the amount lent. Columns (1) - (7) present the effect on total lending with different sets of interaction terms, while Columns (8) and (9) show the effect on the two components of lending, lending to friends and family, and lending to business contacts. The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Individual fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *** p<0.01, ** p<0.05, * p<0.10.

Table A25: Total Savings Heterogeneity - Part 1

	(1) Total financial savings	(2) Total financial savings	(3) Total financial savings	(4) Total financial savings	(5) Total financial savings	(6) Total financial savings	(7) Total financial savings	(8) Net total financial savings	(9) Total financial assets
Panel A: Probability of Any Saving									
Account × post × regret not saving more		-0.018					0.001	-0.005	-0.073
		(0.041)					(0.044)	(0.049)	(0.046)
Account × post × already has bank account			-0.036				-0.034	-0.020	-0.054
			(0.040)				(0.041)	(0.049)	(0.045)
Account × post × socially taxed				-0.070			-0.073*	0.014	0.050
				(0.043)			(0.044)	(0.052)	(0.043)
Account × post × household conflicts					-0.046		-0.040	-0.027	0.012
					(0.049)		(0.050)	(0.051)	(0.047)
Account × post × economic shock						-0.056	-0.037	-0.011	-0.028
						(0.043)	(0.044)	(0.047)	(0.044)
Account × post	0.120***	0.129***	0.135***	0.137***	0.134***	0.144***	0.180***	0.113**	0.130***
	(0.027)	(0.037)	(0.034)	(0.029)	(0.026)	(0.034)	(0.049)	(0.050)	(0.047)
Control mean	0.740	0.740	0.740	0.740	0.740	0.740	0.740	0.554	0.656
Panel B: Amounts (Winsorized at the Top 5%)									
Account × post × regret not saving more		5,118					6,574	9,688	-22,433
		(18,323)					(18,530)	(34,698)	(37,469)
Account × post × already has bank account			-4,810				-7,771	4,573	-829
			(18,792)				(18,787)	(34,963)	(37,057)
Account × post × socially taxed				-20,580			-20,937	84,845**	103,274**
				(19,186)			(19,514)	(35,871)	(40,772)
Account × post × household conflicts					-15,004		-12,075	14,649	27,451
					(17,476)		(17,666)	(35,343)	(38,590)
Account × post × economic shock						-5,477	393	44,960	4,178
						(17,271)	(17,607)	(33,415)	(34,989)
Account × post	-13,703	-18,145	-11,087	-6,301	-9,060	-11,279	-3,987	-36,620	-7,947
	(8,982)	(15,917)	(10,465)	(10,075)	(9,891)	(12,344)	(18,617)	(33,920)	(36,227)
Control mean	183,269	183,269	183,269	183,269	183,269	183,269	183,269	-330	99,801
Panel C: Amounts (Winsorized at the Top 1%)									
Account × post × regret not saving more		22,122					22,021	50,296	9,987
		(28,395)					(28,338)	(78,857)	(81,020)
Account × post × already has bank account			-21,086				-22,385	42,314	24,974
			(30,566)				(30,823)	(73,430)	(75,691)
Account × post × socially taxed				-49,814			-46,465	147,234*	183,184**
				(32,080)			(32,624)	(81,994)	(85,700)
Account × post × household conflicts					-8,261		-6,748	56,839	41,099
					(24,205)		(24,843)	(75,805)	(77,225)
Account × post × economic shock						-7,805	-431	111,643	42,987
						(29,140)	(29,498)	(74,175)	(79,377)
Account × post	-35,601***	-52,347**	-27,193*	-19,112	-32,731**	-32,256*	-24,748	-149,455*	-94,786
	(12,875)	(24,840)	(14,690)	(14,072)	(15,036)	(18,427)	(29,276)	(77,612)	(80,016)
Control mean	219,887	219,887	219,887	219,887	219,887	219,887	219,887	-60,427	56,479

Total Savings Heterogeneity - Part 2

	(1) Total financial savings	(2) Total financial savings	(3) Total financial savings	(4) Total financial savings	(5) Total financial savings	(6) Total financial savings	(7) Total financial savings	(8) Net total financial savings	(9) Total financial assets
Panel D: Non-Winsorized Amounts									
Account × post × regret not saving more		49,881					40,379	58,503	12,575
		(43,913)					(42,278)	(96,316)	(99,809)
Account × post × already has bank account			-52,307				-46,734	26,701	24,468
			(43,134)				(42,811)	(87,696)	(92,246)
Account × post × socially taxed				-98,005*			-85,423*	121,671	196,130*
				(50,280)			(50,490)	(103,366)	(110,835)
Account × post × household conflicts					-4,336		-5,610	56,157	19,543
					(34,615)		(35,558)	(87,583)	(92,196)
Account × post × economic shock						28,140	37,996	160,781*	48,424
						(42,977)	(43,184)	(89,366)	(97,396)
Account × post	-61,132***	-97,707**	-41,010**	-32,901*	-57,275**	-72,104***	-58,472	-192,102**	-115,479
	(18,776)	(39,480)	(20,831)	(19,342)	(22,805)	(25,850)	(42,856)	(92,552)	(96,802)
Control mean	245,162	245,162	245,162	245,162	245,162	245,162	245,162	-55,462	59,972
Panel E: Inverse Hyperbolic Sine of Amount									
Account × post × regret not saving more		-0.157					0.067	-0.251	-1.511
		(0.534)					(0.560)	(1.078)	(1.067)
Account × post × already has bank account			-0.280				-0.281	-0.639	-1.292
			(0.515)				(0.524)	(1.072)	(1.052)
Account × post × socially taxed				-0.913			-0.920	1.757	2.362*
				(0.549)			(0.554)	(1.160)	(1.019)
Account × post × household conflicts					-0.601		-0.480	-0.403	0.636
					(0.605)		(0.612)	(1.096)	(1.084)
Account × post × economic shock						-0.553	-0.316	0.812	0.152
						(0.546)	(0.555)	(1.019)	(0.980)
Account × post	0.910**	0.980*	1.045*	1.153**	1.096**	1.153**	1.529*	1.018	1.523
	(0.341)	(0.494)	(0.429)	(0.373)	(0.334)	(0.431)	(0.644)	(1.072)	(1.048)
Control mean	9.358	9.358	9.358	9.358	9.358	9.358	9.358	2.980	5.203
Post × regret not saving more	No	Yes	No	No	No	No	Yes	Yes	Yes
Post × already has bank account	No	No	Yes	No	No	No	Yes	Yes	Yes
Post × socially taxed	No	No	No	Yes	No	No	Yes	Yes	Yes
Post × household conflicts	No	No	No	No	Yes	No	Yes	Yes	Yes
Post × economic shock	No	No	No	No	No	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individuals	3,555	3,512	3,457	3,505	3,528	3,555	3,350	3,350	3,350
Observations	7,110	7,024	6,914	7,010	7,056	7,110	6,700	6,700	6,700

Notes: This table shows estimations of the impact on total savings for five subgroups. The first four subgroups are pre-treatment variables. The fifth subgroup refers to whether the respondent experienced an economic shock in the three months preceding the follow-up survey. Panel A shows the effect on the probability of any saving. Panels B, C, and D show the effect on the amount of savings winsorized at 5%, 1%, and non-winsorized respectively. Panel E shows the effect on the inverse hyperbolic sine (IHS) of the total savings. Columns (1) - (7) present the effect on total financial savings with different sets of interaction terms, while Columns (8) and (9) show the effect on net total financial savings (including borrowing) and total financial assets (including borrowing and lending). The aggregated variable will have a missing value only if the values of each of its components are missing, which accounts for varying observation counts across dependent variables. Individual and stratum fixed effects are included in each specification. Standard errors clustered at the group level in parentheses. All financial figures are in Chilean pesos. 500 Chilean pesos = about 1 USD in 2009. Level of significance: *** p<0.01, ** p<0.05, * p<0.10.