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# Fostering savings by commitment: Evidence from a quasi-natural experiment at the Small Enterprise Foundation in South Africa

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## Abstract

We study the effects of a pilot project that strengthened the saving incentive mechanisms set up by the Small Enterprise Foundation (SEF), a leading microfinance institution based in South Africa. The program aimed at introducing a stimulus to save in the form of the possession of "*Goal Card*" whereby clients owning this tool were asked to identify a saving goal and to commit to a regular saving amount. The experiment had quasi-natural approach, as it has been implemented by SEF in selected locations starting from May 2015. Difference in differences estimates show an improvement in the savings performance of the SEF customers treated with the program, compared to the counterfactual. Besides the evaluation of the program's main effects, we investigate the clients' understanding of the pilot and their attitude towards saving, as well as the quality of the pilot's administration and its operational challenges, through the administration and analysis of surveys conducted on both the treated and control groups of clients.



## Keywords

Microfinance; quasi-natural experiment; savings.

## JEL Classification

G21, I25, L31, O15.

## 1. Introduction

Savings are often the only way poor can manage to pay for major unexpected events or take advantage of a business opportunity. However, the poor rarely have access to voluntary deposit services offered by formal or semi-formal institutions. Instead, they resort to informal mechanisms, which are often high risk, illiquid and rigid. When formal or semi-formal deposit services are available, there is a wide consensus on the fact that a form of obligation can play an important role in helping the poor save. Many microfinance institutions apply some kind of withdrawal restrictions or other mechanisms that share the common feature of assistance with deposit discipline. However, the evidence on the effectiveness of commitment devices and withdrawal restrictions is contrasting.

We study the effects of a pilot project set up by the Small Enterprise Foundation (SEF), a leading microfinance institution based in South Africa. SEF was founded in 1992 in Tzaneen, Limpopo, in order to combat poverty in a sustainable manner. To achieve this goal, SEF chose the microcredit tool to provide relief to the poorest people, who otherwise would be excluded from the traditional financial system. To date, the organization has operated in five of the nine provinces in South Africa (The Small Enterprise Foundation, 2016), i.e., Eastern Cape, Gauteng, Limpopo, Mpumalanga and North West. SEF has adopted the methodology of group lending with joint liability.

SEF had two different policies to encourage its client to save. The first is a loan-size policy, according to which all clients must have a savings balance of at least 10% of the amount they are applying for, as well as make a deposit of at least 2% of the current loan size fortnightly. The second consists in training sessions delivered by the loan officers on a regular basis to their customers, with the final goal to promote larger saving accumulation.

The new program aimed at introducing a further stimulus to save in the form of the possession of a “Goal Card” whereby clients owning this tool were asked to identify a saving goal and to commit to a regular saving amount. The project has been implemented by SEF in selected locations starting from May 2015 and represented an opportunity to investigate whether encouraging clients to set firm savings commitments is effective in improving their saving performance, i.e. the amount of their saving accounts.

The experiment had quasi-natural approach, as SEF has implemented the pilot project in selected locations or centres. After having identified a control group of centres similar to those treated by means of propensity score matching technique, we performed a difference in differences analysis at the client level. Estimates show an improvement in the savings performance of the SEF customers treated with the program, compared to the counterfactual. On average, not only clients holding a “Goal Card” but also other clients belonging to the treated centres benefited from the program.

These results suggest that a savings incentive program can be effective without being coercive and that the motivational effect may be prevalent. Furthermore, there can be important spillover effects through an imitation effect.

Our findings are consistent with the goal-setting theory, which claims that setting specific, challenging goals leads to an increasing level of task performance. Our study also suggests that feedback is important, since it helps individuals tracing their advancement.

The paper is organized as follows: section 2 reviews main literature findings; section 3 outlines the research objectives; section 4 illustrates the dataset; section 5 explains the methodology used; section 6 presents the results; and finally section 7 concludes suggesting pilot adjustments and further research.

## 2. Literature Review

Even though the industry of microfinance remains dominated by credit, savings have recently started to play an increasingly critical role for Microfinance Institution (MFIs). On one hand, savings represent a more stable source of funds, by reducing MFIs' need for external funding. It can also bring advantages in terms of improved governance, since it heightens the level of MFI's supervision and oversight, eventually limiting managerial misconducts. At the same time, the supply of savings products should positively affect the outreach of MFIs, by driving an increase in the number of clients served, an improvement in customer satisfaction and loan repayment (Campion & White, 2001).

On the other hand, savings mobilization provides a great insight into clients' behavior and their ability to pay, improving the loan appraisal process: this is why many MFIs, which do not collect deposits, still facilitate and monitor client's savings; eligibility for loans and upgrading to greater loan amounts often relies on the accumulation of minimum and/or regular savings.

Yet, savings are not only critical for MFIs. They indeed represent a fundamental need for MFIs target population, that is the low income. Not only these people are faced with very low income, but they also struggle due to its unpredictability. Hence, savings are often the only way they can manage to pay for major unexpected events (such as a marriages or funerals), survive natural disasters, or take advantage of a business opportunity (Consultative Group to Assist the Poorest, 2002). In fact, the poor rarely have access to voluntary deposit services offered by formal or semi-formal institutions. Instead, they resort to informal mechanisms, which are often high risk, illiquid and rigid. This is where the demand for formal saving services originates.

Given this scenario, it is fundamental for MFIs to understand the most effective strategies to mobilize savings, whether it is to leverage on the increased availability of capital or to better serve their customers, responding to their needs by empowering them with the right tools.

Evidence emerging from the literature suggests that the introduction of a tool such as the Goal Card may respond to some of the challenges the poor experience when saving, which may be effective in boosting their savings performance.

There are well known successful examples of saving instruments used to foster the accumulation of savings in poor contexts. One is the case of the Rotating Savings and Credit Associations (ROSCAs), where participants feel compelled to always deposit the right amount, as failing to save diminishes the total amount for the other associates. Also with door-to-door deposit collectors, the visit from a physical person encourages them to overcome the challenges they face and always be able to put aside an amount. Finally, with in-kind storage, that consists into storing small, high-value items – such as jewelry, but also cattle, goats or bottles of alcoholic beverages – that can be exchanged for liquidity in case of an emergency, so that the poor are not tempted to "withdraw", i.e. sell these items, for unnecessary use as trading them on the market (Vonderlack & Schreiner, 2002).

Furthermore, it is interesting to note that all of the informal savings tools and mechanisms the poor resort to share the common feature of assistance with deposit discipline. The particularly relevant insights relate to self-control behavior. The poor, indeed, is more likely to fall into temptation. For instance, Banerjee and Mullainathan (2010) illustrate that the portion of the marginal dollar that is devoted to temptation goods declines with total consumption and income. As a consequence, temptation constitutes a bigger cost for the poor than for the rich, therefore the former do not put aside money for the time to come since they know a fairly great sum of that money will be consumed on temptation goods – which creates a considerable temptation tax. However, the poor are well aware of their vulnerability, as it emerged from a survey administered to 2,000 households living in informal settlements in Hyderabad (Banerjee & Duflo, 2007): respondents highlighted alcohol, tobacco and sugar as their main expenses, in spite of basic needs expenses (i.e. proteins). Indeed, there is a wide consensus on the fact that a form of obligation can play a vital role in helping the poor save.

Unfortunately, the evidence on the effectiveness of commitment devices and withdrawal restrictions is contrasting. On one hand, Ashraf et al. found that a commitment savings product for a Philippine bank, which required the client to set a goal, either in terms of a date or an amount, at the opening of the account, and which prohibited withdrawals until achieving the target, led to a savings' balance increase by 81 percentage points after 12 months (Ashraf, Karlan, & Yin, 2006). On the other hand, Karlan and Linden (Karlan & Linden, 2016), using a school-based commitment savings program for educational expenses in Uganda, compared an account fully-committed to educational expenses to an

account with a weaker commitment (i.e. funds could be withdrawn in cash, rather than a voucher) and they found that the weaker commitment generated higher account savings. This suggests that the intensity of withdrawal restrictions should be carefully chosen: while the aim of commitment devices is to restrict the savings withdrawal and excessive spending, it is also important to consider the trade-off between limiting the tapping from the deposit and not restricting it too much, otherwise people are discouraged from using this device.

According to the goal-setting theory (Locke, Shaw, Saari, & Latham, 1981) setting specific, challenging goals leads to an increasing level of task performance compared to simple and indefinite goals. This applies also to the poor's saving performance. There is evidence from a successful experiment conducted in 2014 by Ideas42 and the Grameen Foundation, whereby goal-setting have been fixed at a 30% increase in savings balance of clients of CARD Bank in the Philippines. It has been shown, instead, that in the absence of a clear and ex-ante plan on how to use and manage those savings, clients usually end up using the saved money for impending needs (Fiorillo, Potok, & Wright, 2014). Another issue that the author found to prevent the poor from accomplishing satisfying results is the anchoring effect: in fact, setting savings targets for the clients – usually in the form of weekly deposit requirements – anchors clients to saving a certain amount, sometimes lower than the potential one they could achieve.

In addition, feedback is crucial, since it helps individuals tracing their advancement. Karlan et al. investigated the impact of reminders in the form of text messages both on repayment and savings performance. In terms of timely loan repayment, they found no evidence that messages improved the repayment performance of the treatment group compared to the control group, unless the name of the loan officer was included. This was particularly true for pre-existing borrowers, suggesting that the outcome is mainly to be attributed to the personal connection between participants and officers (Karlan, Morten, & Zinman, 2015).

In terms of savings, reminders play an important role per se, since the lack of guilt for the debt makes the limited attention the main obstacle to achieve the savings goal. Karlan et al. led an experiment – jointly with three different banks in Bolivia, Peru and the Philippines – that proved that monthly reminders help clients to meet their savings goals. More specifically, they find that messages featuring both a savings goal and a financial incentive are particularly effective. Moreover, other than increasing the likelihood of clients meeting their goal, reminders are able to improve the overall savings balance as well (Karlan, McConnell, Mullainathan, & Zinman, 2016). Consistently, Kast et al. (2012) earlier found positive results from introducing a weekly text feedback service in two Randomized trials among 2,687 micro-entrepreneurs in Chile. In particular, the study compares the

different effects of text messages and self-help groups, concluding that the former constitutes a potentially more scalable alternative.

In light of the above evidence, we conjecture that a saving tool that prevents its users from falling into temptation (by setting appropriate limits to withdrawals and helping them to define a clear plan on how they will manage and use their savings) would indeed prove to be effective in helping them to better manage their finances, ultimately improving their life conditions. What should be carefully considered by the implementing financial institution is the goal's importance and complexity: clients should be assisted in setting meaningful goals part of a vision. In fact, studies conclude that having your own vision affects your drive (Masuda, Kane, Shoptaugh, & Minor, 2010) and that perceiving the objective as significant will boost the commitment (Locke & Latham, 2006). At the same time, the goal chosen should be fairly challenging: Locke and Latham (2006) conclude that task complexity, defined as an inverse measure of the likelihood of task achievement, is related to the individual's performance: assigning tough goals may not be productive. On the one hand, individuals may perceive those goals as intimidating. On the other hand, the peak in effort arises when the task is reasonably hard; the lowest levels arises when the task is either very simple or very arduous (Locke & Latham, 2002).

Another important feature to be conserved is the extent of withdrawals' restrictions: since the loss of liquidity represents a potential risk for the poor (Ashraf et al., 2006), the optimal degree of looser versus stricter commitments should be carefully chosen. Karlan and Linden (Karlan & Linden, 2016) suggest to link it to the duration of the savings account: for short-run needs looser commitments may be best, while for long-term savings, for example savings for retirement, stronger obligations may be more appropriate, as the benefits from savings are too distant in time (Karlan & Linden, 2016).

Finally, the form of reminders cannot be disregarded: traditionally, reminders have been in the form of field officers periodically visiting the client. While this form has proved its efficacy, it is also rather time consuming and has limited outreach. More modern systems leveraging on ICT should be considered, since they represent an easy and cost-effective way for the MFIs to reach their clients, thanks to the fact that mobile phones are becoming ever more accessible even to poor households.

## 3. Research Objectives

The main research goal is to provide a quantitative assessment of the impact of the Goal Card project on clients' savings performance, through the analysis of data on individual savings balances.

The experiment has a quasi-natural approach, as the treated centres were selected by the SEF managers according to some specific criteria, which are detailed in the next sections. Furthermore, clients in the treated centers could decide to sign up a Goal Card on a voluntary basis. Consequently, we include in the treated group all clients belonging to the treated centres. Therefore, we mainly estimate the effect of an intention to treat (ITT): we focus on the initial treatment assignment, i.e. the launch of the Goal Card project in the treated centers, and not on the adoption of the Goal Card by individual clients. This approach is likely to yield conservative estimates.[1]

Besides the evaluation of the program's effects, there are other interesting insights from our analysis. First, we investigate the clients' understanding of the pilot and challenges experienced, as well as their attitude towards savings, through the administration and analysis of surveys conducted on both the treated and control groups of clients. Second, we aim at understanding the pilot's administration and its operational challenges, through visits in the field, as well as interviews to both clients and the staff.

In the next section we will describe the dataset, followed by the illustration of the empirical methodology, including the criteria used to form a control group of centers whose characteristics are as similar as possible to the treated group.

[1] Robustness analysis will be conducted on the clients that actually completed their Goal Card.

## 4. Data

In order to accomplish the distinct research goals outlined in the previous section, we utilized different data sources.

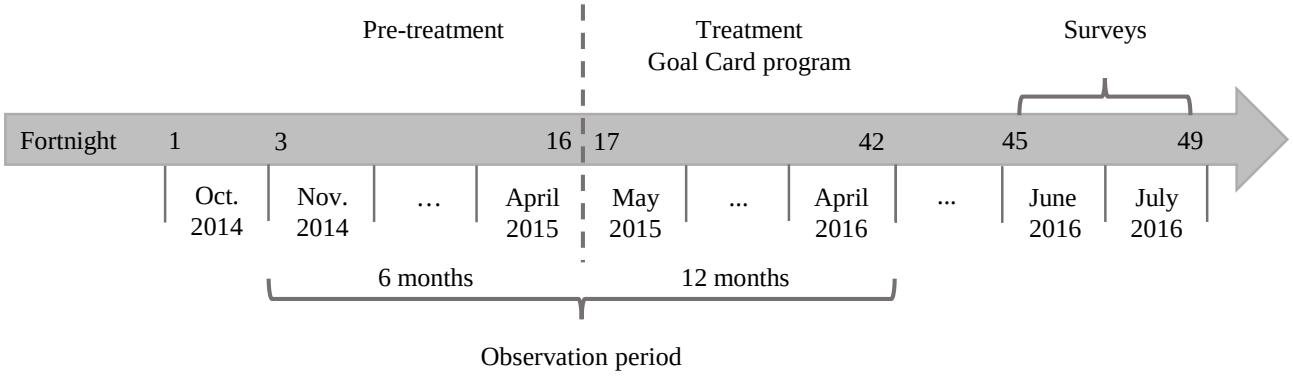
### 4.1. Individual Savings

To quantitatively estimate the impact of the Goal Card program on individual saving performance, we used data collected by the Research and Development team on clients' savings balances. This dataset was integrated with other relevant variables, namely age, years in business (YIB) and a poverty index (PPI) drawn from the SEF's archives.

To identify the centres in which the Goal Card was introduced and the clients belonging to the treated centres who actually completed a Goal Card, we used the Goal Card Mastersheet, provided by the R&D team at SEF.[2]

As Figure 1 shows, we considered data from November 2014 (six months before the pilot) until April 2016 (one year after the start-up of the Goal Card program).

**Figure 1 – Data collection**




#### 4.1.1. Imputation of Missing Values

Individual savings balance are recorded by the centre's Development Facilitator (DF) at the end of each loan cycle, during the centre meeting, and subsequently captured by the R&D team. Most of the loans granted by SEF have a duration of four months, a minority part has a duration of six months, and only a small part has an annual duration. Therefore, clients' savings balances are usually recorded every four months. To cover the entire observation period, we have collected the data available from

[2] For a comprehensive list of all variables used, refer to Annex 1 in the Appendix.

2013 to the end of 2016. By using the fortnights as a time reference, we built a balanced panel by doing a linear interpolation of available data. In the main analysis, we considered all the customers of the treated and control centers for which the obtained data covered the entire observation period. We have also chosen this approach to avoid possible confounding factors, such as those related to the inclusion of new customers or clients who dropped out in the observation period.[3]

Finally, to manage unavailable information in the clients' poverty index, we imputed the missing data with a statistical forecasting by means of Random Forest methodology.

### 4.2. Surveys

As anticipated, to address the more qualitative research goals, (i.e., investigate clients' understanding of the pilot and challenges experienced by them, as well as attitude towards savings, and to explore clients' openness to a tool like the Goal Card) we administered two separate surveys to both the pilot and control centres.[4] The 218 clients interviewed were distributed as outlined in Table 1.

**Table 1 – Clients interviewed per centre**

| Treated Group: Centres | No. of Clients Interviewed | Control Group: Centres | No. of Clients Interviewed |
|---|---|---|---|
| JAB | 10 | JBE | 17 |
| JAX | 3 | JBL | 21 |
| JDL | 17 | JDC | 33 |
| JEE | 14 | JDJ | 20 |
| JEL | 10 | JDO | 11 |
| JEN | 15 | JDQ | 10 |
| JEQ | 9 | JEB | 26 |
| | | JEE | 2 |
| Total | 78 | Total | 140 |

The number of interviews collected mostly depended on clients' attendance and availability. When visiting the treated centres, only clients who completed a Goal Card were interviewed.

[3] We performed a robustness analysis by expanding the number of the clients considered and without doing a linear interpolation of available data (see Annex 9).
[4] For the full surveys, refer to Annex 10 and 11.

## 5. Research Methodology

In order to uniquely ascribe the change observed in the savings performance as a consequence of the Goal Card program implementation, we identified the control centers by Propensity Score Matching and then evaluated the impact on clients' savings balances by using the Difference in Differences (DID) estimator.

### 5.1. Propensity Score Matching: Control Group Identification

Given the quasi-experimental nature of the pilot, we resorted to the Propensity Score Matching technique to identify the control centres. This technique measures the probability to be assigned to the treatment, on the basis of observable characteristics measured before the intervention and allows to select the control that is the most similar to the treatment, thus countering possible selection bias. Specifically, we chose to implement the Nearest Neighbor technique, which matches to every treated unit a control unit that has the closest propensity score.

Matching was implemented at the centre level. SEF randomly selected Jane Furse as the branch where to launch the pilot. Within the Jane Furse branch, SEF managers selected the four best performing and the four worst performing centres. One of the centres originally selected, namely JAX, dropped out of the pilot after changing the DF. Therefore, the treated centres, where the Goal Card was introduced, are seven.

The parameters taken into consideration to compute the propensity score were those considered by SEF to select the treated centres, namely the average customers' attendance rate, their savings, the number of arrears, the loan cycle, and dropout rate.[5] For each of the above variable, the average at the centre level over the 6 months preceding the beginning of the pilot was calculated, and matching occurred based on that. In order to preserve some degree of uniformity, we restricted the pool of centres selected to constitute a counterfactual to those belonging to the Jane Furse branch, for a total 51 centres. Table 2 shows the outcome of the selection.

[5] We also included the loan cycle and the drop-out rates at the centre level to capture any analogies that may have been left out by the other three criteria. However, the best matching, measured by the Percentage Balance Improvement, was obtained when considering only attendance, savings and arrears.

**Table 2 – Control centres**

| Control Centres | Number of Groups per Centre | Development Facilitator |
|---|---|---|
| JDC, JBL, JBE | 9, 16, 5 | DF 3 |
| JDJ | 8 | DF 6 |
| JDO | 5 | DF 1 |
| JEB, JDQ | 10, 6 | DF 5 |

The goodness of the match can also be seen from the parameters averages pre-pilot for the two groups: the values only differ slightly as shown in Table 3 below.

**Table 3 – Control and treatment groups' average matching parameters**

| Group | Average Savings | Average Attendance | Average Arrears |
|---|---|---|---|
| Control | 25,052 | 0.73 | 0.015 |
| Treatment | 24,991 | 0.72 | 0.012 |
| Difference | 61,76 | 0.01 | 0.003 |

### 5.2. Difference-in-Differences Model

Using the Difference in Differences (DID) methodology we compare the difference (treatment vs. pre-treatment) in the average dependent variable in the treated group with the difference (after treatment-before treatment) in the average dependent variable of the control group.

The first estimated equation is:

$$y_{it} = \alpha + \beta_1 \, Treated_i + \beta_2 \, Program_{it} + \beta_3 \, (Treated_i \, ^{*} \, Program_{it}) + u_{it} + \varepsilon_{it} \qquad (1)$$

where $i$ is the observational unit, i.e. the individual, while $t$ is the time unit, i.e. fortnights in the observation period. $y_{it}$ is the dependent variable of interest, whose change over time we want to estimate (savings balance). $Treated_i$ is a dummy variable equal to 1 if the client belongs to the treated group, i.e. s/he is in a Goal Card centre, and it is equal to 0 if the client belongs to the control group. This variable changes across individuals, but not through time. $Program_{it}$ is a dummy variable equal to 1 after the start-up of the pilot, and 0 before. This variable changes through time but not across individuals. $Treated_i$ * $Program_{it}$ is the interaction between the two previous dummy variable and is equal to 1 only for the treated group during the pilot period. This variable represents the treatment, i.e. the Goal Card program, and the coefficient $\beta_3$ estimates its effect. In particular, the double difference $\beta_3$ measures the effect of the treatment on the outcome variable, and it can be interpreted as the difference between the pre and post variation of the dependent variable for the treated group, compared to the counterfactal. $u_{it}$ and $\varepsilon_{it}$ are the error terms, which we assume normally distributed.

The second estimated equation is:

$$y_{it} = \alpha + \beta_1 \, Treated_i + \beta_2 \, Program_{it} + \beta_3 \, (Treated_i * Program_{it}) + \beta_4 \, X_i + u_{it} + \varepsilon_{it} \quad (2)$$

We added a matrix of control variables ($X_i$) in (2) in order to allow an improved and unbiased estimate of the treatment effect. We selected parameters that presented significant mean differences between the control and treatment group, identified by performing *t*-tests for mean equality on all the available time-invariant variables in the overall dataset. Precisely, the included variables are: the age, poverty index (PPI), loan cycle, loan amount, DF dummies, and centre dummies (Table 4).[6]

**Table 4 – Descriptive statistics**

| **All individuals** | **Obs.** | **Mean** | **Std. Dev.** | **Min** | **p25** | **p50** | **p75** | **Max** |
|---|---|---|---|---|---|---|---|---|
| Age | 309 | 53.2 | 12.3 | 26 | 43 | 53 | 63 | 85 |
| Poverty index | 309 | .589 | .188 | .019 | .488 | .62 | .713 | .99 |
| Years in business | 309 | 7.37 | 3.72 | 1 | 5 | 7 | 10 | 24 |
| Loan cycle | 309 | 12.1 | 6.94 | 2 | 6 | 11 | 17 | 28 |
| Loan amount | 309 | 3,946 | 3,217 | 1,000 | 2,000 | 3,000 | 4,000 | 20,000 |
| Initial savings balance | 309 | 888 | 908 | 0 | 354 | 644 | 1,070 | 6,213 |
| Pre-treatment average savings balance | 309 | 848 | 810 | 0 | 357 | 602 | 1,085 | 5,653 |
| **Treated** | **Obs.** | **Mean** | **Std. Dev.** | **Min** | **p25** | **p50** | **p75** | **Max** |
| Age | 161 | 54.5 | 11.8 | 30 | 46 | 54 | 64 | 84 |
| Poverty index | 161 | .639 | .157 | .162 | .587 | .658 | .727 | .99 |
| Years in business | 161 | 8.22 | 3.62 | 2 | 6 | 9 | 10 | 24 |
| Loan cycle | 161 | 13.9 | 6.87 | 2 | 9 | 13 | 19 | 27 |
| Loan amount | 161 | 3,811 | 3,259 | 1,000 | 2,000 | 2,800 | 4,000 | 20,000 |
| Initial savings balance | 161 | 858 | 799 | 0 | 390 | 667 | 1,030 | 4,850 |
| Pre-treatment average savings balance | 161 | 880 | 807 | 16.6 | 406 | 659 | 1,066 | 5,653 |
| **Control** | **Obs.** | **Mean** | **Std. Dev.** | **Min** | **p25** | **p50** | **p75** | **Max** |
| Age | 148 | 51.7 | 12.8 | 26 | 41 | 51 | 62 | 85 |
| Poverty index | 148 | .534 | .204 | .019 | .396 | .573 | .657 | .99 |
| Years in business | 148 | 6.45 | 3.62 | 1 | 4 | 6 | 9 | 19 |
| Loan cycle | 148 | 10.1 | 6.45 | 3 | 5 | 8 | 14 | 28 |
| Loan amount | 148 | 4,092 | 3,175 | 1,000 | 2,000 | 3,000 | 4,600 | 20,000 |
| Initial savings balance | 148 | 919 | 1,016 | 0 | 302 | 627 | 1,111 | 6,213 |
| Pre-treatment average savings balance | 148 | 813 | 814 | 0 | 297 | 546 | 1,129 | 5,049 |

[6] Appendix contains full variables description (Annex 1), descriptive statistics (Annex 3), baseline summary statistics and tests of balance (Annex 4), correlation matrices (Annex 5) and tests on the pre-treatment values of savings balances (Annex 6).

## 6. Results

### 6.1. Quantitative Analysis

Table 5 shows the estimates of the treatment effect ($Treated_i * Program_{it}$) on customers' savings balance.[7] Both fixed-effects and random effects estimations have been performed (respectively in columns (1) and (2)-(4)), also including covariates. The overall impact of the Goal Card pilot on the savings balance of the clients belonging to the treated group is positive and significant, as shown by the parameter associated with the interaction term $Treated_i * Program_{it}$.

**Table 5 - Estimated effects of the Goal Card program on customers' savings balances**
**Fixed and random effects (Treated=Intention to Treat)**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Savings balance** | **Savings balance** | **Savings balance** | **Savings balance** |
| | (ln) | (ln) | (ln) | (ln) |
| | (FE) | (RE) | (RE) | (RE) |
| Treated | 0.000 | -0.163 | -0.245* | -0.037 |
| | (.) | (0.113) | (0.140) | (0.124) |
| Program | -0.074*** | -0.074 | -0.074 | -0.074 |
| | (0.014) | (0.045) | (0.045) | (0.045) |
| Treated * Program | 0.284*** | 0.284*** | 0.284*** | 0.284*** |
| | (0.021) | (0.079) | (0.079) | (0.079) |
| Age (ln) | | | 0.232 | 0.022 |
| | | | (0.229) | (0.210) |
| Poverty index (ln) | | | -0.716* | -0.557 |
| | | | (0.429) | (0.391) |
| Years in business (ln) | | | -0.057 | -0.048 |
| | | | (0.127) | (0.125) |
| Loan cycle (ln) | | | -0.056 | -0.027 |
| | | | (0.104) | (0.096) |
| Loan amount (ln) | | | 0.849*** | 0.944*** |
| | | | (0.079) | (0.077) |
| DF fixed effects | NO | NO | YES | NO |
| Centre fixed effects | NO | NO | NO | YES |
| Constant | 6.309*** | 6.387*** | -1.865 | -0.616 |
| | (0.008) | (0.073) | (1.162) | (1.007) |
| No. of observations | 12,360 | 12,360 | 12,360 | 12,360 |
| No. of clients | 309 | 309 | 309 | 309 |
| R-squared: within | .018 | .018 | .018 | .018 |
| R-squared: between | .000127 | .000127 | .456 | .555 |
| R-squared: overall | .00238 | .00442 | .351 | .426 |
| Hausman test chi-squared | 7.64e-11 | | | |
| Hausman test p-value for the chi-squared | 1 | | | |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Column (1) reports fixed-effects (FE) estimates, whereas columns (2)-(4) report random-effects (RE) estimates. * p < 0.10, ** p < 0.05, *** p < 0.01

[7] Full tables and additional results are reported in Annex 7.

In general, this evidence is supportive of a favorable assessment of the Goal Card pilot, as it led to an improvement of the treated clients' saving behavior. The average treatment effect is an increase of individual savings balances equal to about 28%, and this result is robust across all specifications.

Furthermore, the analysis highlights that the loan amount is positively and significantly associated with the saving balance.

Finally, we obtain better results (see Table 6), i.e. the average treatment effect is an increase of individual savings balances equal to about 54%, when considering as treated only those individuals that completed their Goal Card, instead of all individuals belonging to treated centres. However, these results are to be considered less accurate due to self-selection biases and the small sample size.

**Table 6 - Estimated effects of the Goal Card program on customers' savings balances**
**Fixed and random effects (Treated=Goal Card completed)**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Savings balance** (ln) (FE) | **Savings balance** (ln) (RE) | **Savings balance** (ln) (RE) | **Savings balance** (ln) (RE) |
| Goal Card | 0.000 | 0.220 | 0.593*** | -0.155 |
| | (.) | (0.166) | (0.212) | (0.156) |
| Program | -0.074*** | -0.074 | -0.074 | -0.074 |
| | (0.014) | (0.045) | (0.045) | (0.045) |
| Goal Card * Program | 0.537*** | 0.537*** | 0.537*** | 0.537*** |
| | (0.030) | (0.127) | (0.127) | (0.127) |
| Age (ln) | | | 0.304 | 0.106 |
| | | | (0.230) | (0.218) |
| Poverty index (ln) | | | -0.169 | -0.265 |
| | | | (0.489) | (0.465) |
| Years in business (ln) | | | 0.120 | 0.070 |
| | | | (0.172) | (0.181) |
| Loan cycle (ln) | | | -0.071 | -0.042 |
| | | | (0.132) | (0.129) |
| Loan amount (ln) | | | 0.843*** | 0.871*** |
| | | | (0.092) | (0.098) |
| DF fixed effects | NO | NO | YES | NO |
| Centre fixed effects | NO | NO | NO | YES |
| Constant | 6.433*** | 6.387*** | -2.640* | -0.701 |
| | (0.010) | (0.073) | (1.377) | (1.282) |
| No. of observations | 8,120 | 8,120 | 8,120 | 8,120 |
| No. of clients | 203 | 203 | 203 | 203 |
| R-squared: within | .0403 | .0403 | .0403 | .0403 |
| R-squared: between | .064 | .064 | .428 | .472 |
| R-squared: overall | .0555 | .0581 | .332 | .365 |
| Hausman test chi-squared | -6.46e-12 | | | |
| Hausman test p-value for the chi-squared | 1 | | | |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Column (1) reports fixed-effects (FE) estimates, whereas columns (2)-(4) report random-effects (RE) estimates. * p < 0.10, ** p < 0.05, *** p < 0.01

## 6.2. Qualitative Analysis

We conducted and analyzed surveys to gain insights on how well the program was perceived by the clients, their motivation, and how the tool could be further improved. We conducted two separate surveys for the Treatment and Control Groups. In what follows, we will refer to the survey questions as Qx – TG or Qx – CG, where x stands for the question number and TG and CG stand respectively for Treatment Group and Control Group survey.[8]

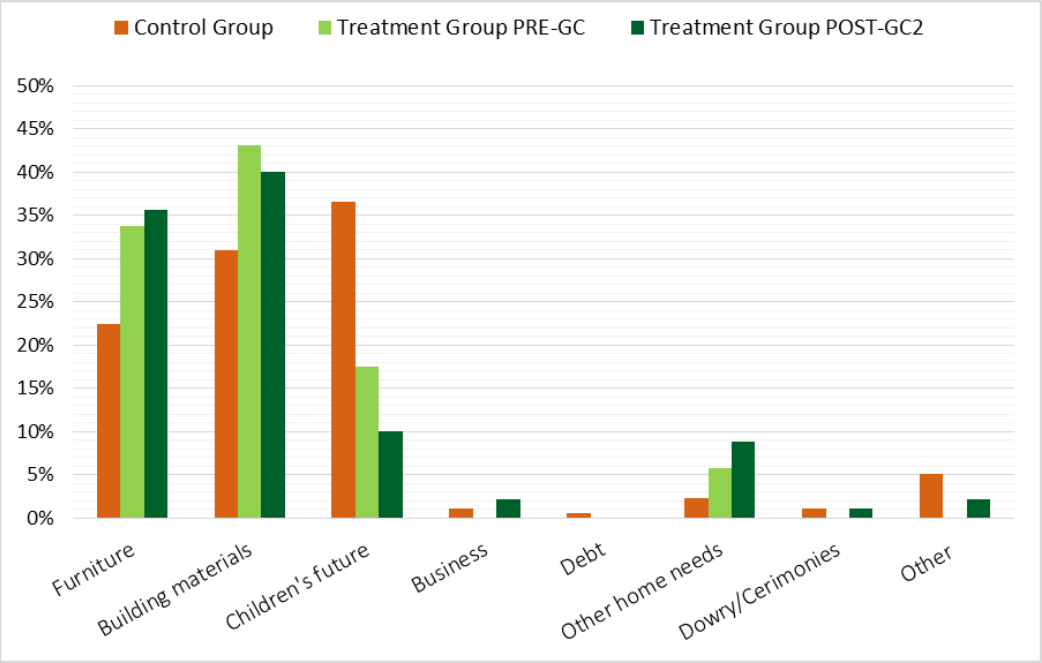
**Importance of savings.** We started by questioning clients about the importance of savings (Q1 – TG, Q1 – CG). All clients interviewed, but one in the control group, recognize savings as being important or very important, with clients in the control group valuing them more. In fact, 71% and 63% in the control group and treatment group respectively stated to consider them as very important. In particular, their importance is recognized with respect to mitigating emergencies: 80% in both groups declared having savings dedicated to emergencies and unexpected events (Q13 – TG, Q10 – CG).

**Saving Management.** It turns out that most of the clients are already well prepared to manage their savings: not only they set goals, but they also have a plan. In fact, 95% of the control group clients currently has a saving goal (Q5 – CG), whereas 96% from the treatment group had one before the Goal Card was introduced (Q5 – TG). The clients in the two groups save for different reasons: while in both groups, more than half of the clients saves for either furniture or building material, only a minority of the treated group is motivated by their children's future needs (17% pre-pilot, dropping to 10% post pilot), compared to the control group (37%). The lack of data on household composition does not allow understanding what drives this difference in the allocation of savings. Interestingly, none of the clients from the control group reported business as being a reason for saving, nor did the treated clients before the pilot introduction. However, since the pilot started, more than 2% of the interviewed are now saving for their businesses (Q7 – TG). Figure 2 summarizes the distribution of respondents over saving goals.

Furthermore, more than 70% of the control group already has a savings plan (Q7 – CG) and 90% of them declared that they manage to keep up with it (Q8 – CG)[9]. Likewise, 78% of the treatment group has always been able to meet their savings plan commitment, confirming the previous quantitative findings. In both groups, the major obstacles to the commitment (Q11 – TG, Q9 – CG) has been illnesses among the family (almost 40%), followed by business problems and funerals expenses. Figure 3 details all of the obstacles to the clients' experience.

[8] The full surveys can be found under Annex 10 and 11.
[9] These figures may not be entirely accurate as there is the possibility that some clients might have been referring to the 2% mandatory savings.

**Figure 2 – Savings Goal Distribution**




As key coping strategy, treatment clients saved more (40%) or worked harder (47%). Despite the awareness about the importance of savings and clients' apparent ability to manage them, the majority of clients (62% of the treatment group and 66% of the control group) do not have any other savings besides the amount that SEF encourages them to put aside on the Group Savings Account (Q3 – TG, Q3 – CG). The rest of them keeps their extra-savings in one other form, which is mostly bank or post office account (Q4 – TG, Q4 – CG). Figure 4 illustrates the details of how clients keep their savings.

**Pilot experience.** Overall, the pilot has been well perceived: when asked about how helpful they were finding the tool of the Goal Card, all of the clients answered positively – with around 85% reporting "very helpful" and the remaining "helpful" (Q20 – TG), while none of them regrets taking part to it (Q22 – TG). Clients also understood the reasons why SEF introduced it (Q15 – TG): in more than 50% of the cases they indicated "to remind us the importance of savings" and 41% answered "to help us realize our potential".

Moreover, clients appear to be opened to the introduction of similar tools: in fact, the large majority of the women in the control group (90%) would be "pleased" if SEF would ask them to save constantly for a goal they could set themselves, whereas only 3,6% would feel "constrained" in such a situation (Q12 – CG). The remaining interviewed clients felt either "neutral" about it (5%) or thought that they do not need it (1.4%).

**Figure 3 – Savings Obstacles**

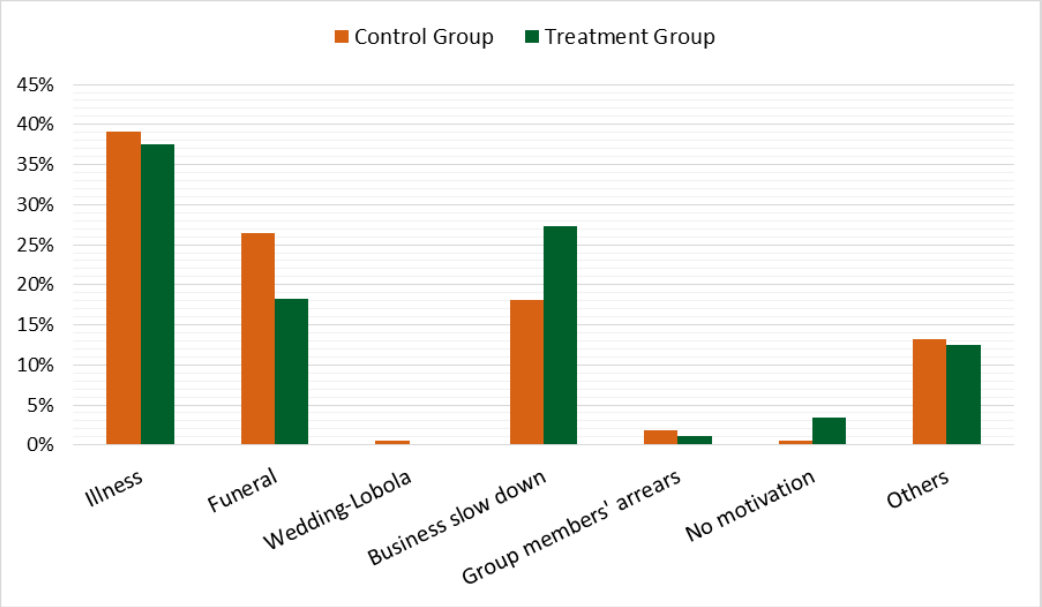
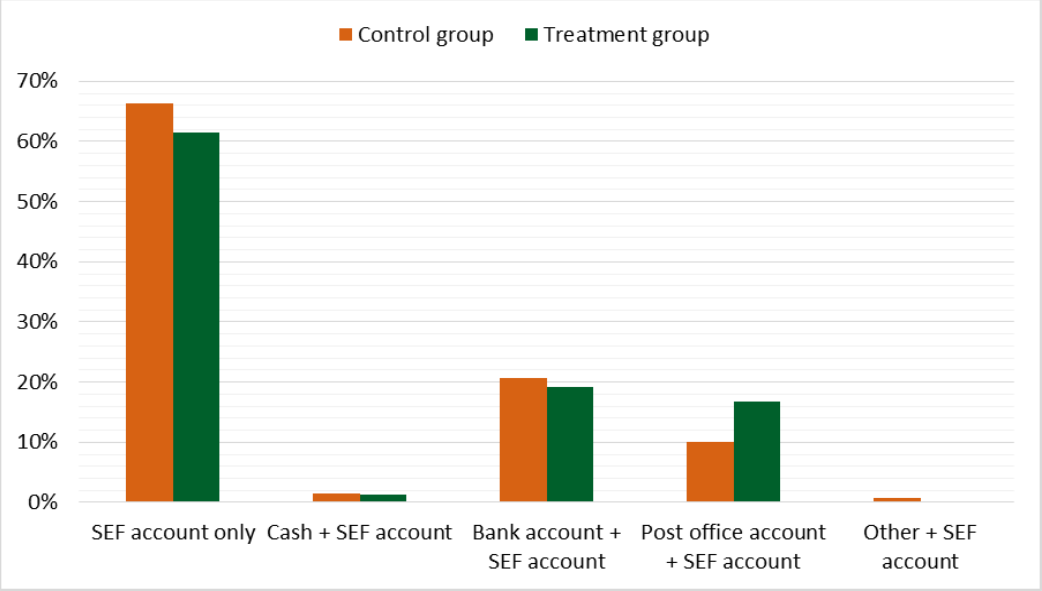



**Figure 4 – Savings Accounts**




**Pilot Management.** DFs indeed play a crucial role in the success of the pilot. Approximately 50% of the interviewed reported that the DF helped them choosing the goal (Q8 – TG) and staying motivated throughout the program (Q17 – TG). Furthermore, DFs periodically checked the achievements of 80% of the respondents (Q18 – TG) and almost all clients (more than 96%) recalled the DF used to constantly verify their progress on the pre-defined milestone date at the regular meetings (Q19 – TG).

The area of improvement that emerged concerns the various forms of recognition (Q23 – TG, Q16 – CG): clients provided a positive assessment regarding these aspects. This, in turn, could encourage further savings or new women to join the program. Some of the clients suggested prizes – in the form

of either gifts, cold drinks or even eligibility to larger loan amounts. Most of them, however, only need some kind of acknowledgment from either the DF, the centre or other SEF employees: they feel that sharing their results and achievements is a way to encourage themselves, but also to inspire other members that are struggling with their savings by setting a good example.

Finally, customers highlighted that different time horizons should be allowed for the savings goal: only 18% would rather save for a long-term goal (more than 2 years), half of the group for a medium-term goal (between 6 months and 2 years) and a substantial 32% for a short-term goal (less than 6 months).

## 7. Conclusions

The aim of this research was to quantitatively estimate the impact of the Goal Card on clients' individual ability to save. SEF introduced this tool in selected centres of the Jane Furse branch to help clients choose clear saving goals and saving plan appropriately.

According to the literature, setting specific goals and tracking the advancement towards them leads to an improved task performance of microfinance clients in poor contexts. Therefore, when considering the poor and their savings behavior, helping them define savings goal and reminding them about their financial goals, while giving them acknowledgment on their progress, should enhance their savings performance. These theoretical assumptions are strengthened by some empirical evidence: studies carried out in the Philippines by (Fiorillo et al., 2014) and Ashraf et al. (Ashraf et al., 2006; Ashraf, Karlan, & Yin, 2010) found commitment savings devices and goal setting to be associated with increased savings balance from 30% to 81%.

Consistently, we found that the Goal Card led to an improvement in saving accumulation. Overall, clients well perceived the program and are highly aware of the importance of saving and of planning their use for their future. Indeed, there are several factors to consider that may generate uncertainty on the external impact of similar tools: as also found in the literature, program design (i.e. centre-selection), and savings tool features (withdrawals restrictions) as well as the cultural and geographical setting are critical elements for the achievement of a successful outcome. Based on these findings, we recommend further research to refine the analysis, as well as pilot improvements. Some examples could be the analysis of different outcome variables, such as probability of fulfilling the goal and other measures of wellbeing, randomization of treatment to overcome selection biases. As for the pilot operational policy, particular focus should be given to the progress monitoring and milestones date check. In fact, as it emerges from our surveys, keeping track of the advancement towards the goal is fundamental for an improved performance, and clients value highly the support received by

the microfinance institutions. At the same time, they would appreciate a form of recognition, therefore it is crucial to carefully craft the "milestone moment". Most of the clients desire an acknowledgment from either the development facilitator, the centre manager or other SEF employees: sharing their results and achievements is a way to encourage themselves, but also to inspire other members that are struggling with their savings by setting a good model. Further improvements that can be implemented include the introduction of systematic reminders to keep the clients motivated and focused on the goal throughout the whole period the project. As we have been able to understand, indeed, lack of focus and forgetfulness can represent a big obstacle to the achievement of the goal. Reminders can be of various form: it could simply be dedicating some time to addressing the Goal Card during centre meetings.

Finally, the program should clearly define goals, outcomes and outputs for the project and select appropriate instruments to measure each. In this regard, we suggest to account not only for the saving performance as measured by the amount saved, but also savings management. In fact, as it emerged from our survey, clients are already well aware of the importance of saving and planning, and are already saving a considerable amount to comply with the SEF's policy. Therefore, the value added of a tool like the Goal Card is in terms of appropriate planning, goal selection, money management and use.

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# APPENDIX

## Annex 1 - Description of the Variables

**Table A1.1 – Description of the variables**

| Variable | Type | Description |
|---|---|---|
| Savings balance | Numerical | Individual savings balance at the end of every loan cycle, as recorded by the Development Facilitator (DF) during the centre meeting and captured by the R&D team on the IS Excel sheets. |
| Treated | Dummy | Dummy variable equal to 1 if the unit of observation belongs to a treated centre, 0 otherwise. |
| Program | Dummy | Dummy variable equal to 1 if data are relative to the treatment period observed (May 2015-April 2016, i.e. fortnight (FN) 17-42), 0 if data are relative to the pre-treatment period (November 2014-April 2015, i.e. fortnight (FN) 3-16). |
| Age | Numerical | Age of the client, as recorded by SEF. |
| Years in business (YIB) | Numerical | Number of years the client has been running a business, as recorded by SEF. |
| Loan amount | Numerical | Amount of the outstanding loan of each client at the beginning of the Goal Card program, as recorded by SEF. |
| Loan cycle | Numerical | Number of loans taken by each client at the beginning of the time horizon considered, as recorded by SEF. |
| Poverty score | Numerical | Probability that a household is under the national poverty level. Comprised between 0 and 1. Computed by SEF applying the national guidelines. |
| DF_1 | Dummy | Dummy variable equal to 1 if the client belongs to a centre (JDO) assigned to Development Facilitator (DF) 1, 0 otherwise. |
| DF_2 | Dummy | Dummy variable equal to 1 if the client belongs to a centre (JEL) assigned to DF 2, 0 otherwise. |
| DF_3 | Dummy | Dummy variable equal to 1 if the client belongs to a centre (JAX, JBE, JBL, JDC, JEN) assigned to DF 3, 0 otherwise. |
| DF_4 | Dummy | Dummy variable equal to 1 if the client belongs to a centre (JAB, JAQ) assigned to DF 4, 0 otherwise. |
| DF_5 | Dummy | Dummy variable equal to 1 if the client belongs to a centre (JDQ, JEB ) assigned to DF 5, 0 otherwise. |
| DF_6 | Dummy | Dummy variable equal to 1 if the client belongs to a centre (JDJ, JDL, JEE) assigned to DF 6, 0 otherwise. |
| Centre = 1 | Dummy | Dummy variable equal to 1 for the centre JAB, 0 otherwise. |
| Centre = 2 | Dummy | Dummy variable equal to 1 for the centre JAX, 0 otherwise. |
| Centre = 3 | Dummy | Dummy variable equal to 1 for the centre JBE, 0 otherwise. |
| Centre = 4 | Dummy | Dummy variable equal to 1 for the centre JBL, 0 otherwise. |
| Centre = 5 | Dummy | Dummy variable equal to 1 for the centre JDC, 0 otherwise. |
| Centre = 6 | Dummy | Dummy variable equal to 1 for the centre JDJ, 0 otherwise. |
| Centre = 7 | Dummy | Dummy variable equal to 1 for the centre JDL, 0 otherwise. |
| Centre = 8 | Dummy | Dummy variable equal to 1 for the centre JDO, 0 otherwise. |
| Centre = 9 | Dummy | Dummy variable equal to 1 for the centre JDQ, 0 otherwise. |
| Centre = 10 | Dummy | Dummy variable equal to 1 for the centre JEB, 0 otherwise. |
| Centre = 11 | Dummy | Dummy variable equal to 1 for the centre JEE, 0 otherwise. |
| Centre = 12 | Dummy | Dummy variable equal to 1 for the centre JEL, 0 otherwise. |
| Centre = 13 | Dummy | Dummy variable equal to 1 for the centre JEN, 0 otherwise. |
| Centre = 14 | Dummy | Dummy variable equal to 1 for the centre JEQ, 0 otherwise |

**Annex 2 - Propensity Score Matching – Selection of the Control Centres**

We used Rosenbaum and Rubin's PSM technique (1983) for the selection of the centres to be used as control group. This PSM analysis was conducted at the centre level because SEF had selected the treated centres at this level. The Propensity Score (treated or non-treated) is the probability that a unit is assigned to the intervention on the basis of its characteristics prior to treatment. The centres selected through this procedure will be the ones most similar to the actual treated centres, so that the treated and the control centres can safely be compared to evaluate the effects of the treatment.

The Propensity Score is the probability of receiving the treatment conditional on a set of covariates, formalized as follows:

$$E(X_i) = Pr\,[z_i = 1 \mid X_i] \qquad \text{(A2.1)}$$

where $z_i$ is a dummy variable that equals 1 if the centre *i* is undergoing treatment, and 0 if it represents a non-treated centre. $X_i$ is a vector of the covariates observed for each of the centres. $E(X_i)$ is the conditional probability, for a given centre, of being exposed to the intervention ($z_i$=1), given the observed vector of the covariates.

The propensity of exposure to treatment is estimated using a logistic regression model on the observed data. The Propensity Score, indicated by $b(X_i)$, is a function of the observed covariates, so that the conditional distribution of *X*, given $b(X)$, is the same both for the centres undergoing an intervention ($z_i$=1) and those belonging to the control group ($z_i$=0). Alternatively, the covariates are orthogonal to the status of the treated or non-treated centre:

$$X_i \perp z_i \mid b\,(X_i) \qquad \text{(A2.2)}$$

In situations that do not involve the use of randomization, it is assumed that the treatment assignment is strongly ignorable, given the vector of covariates – $X_i$ –, if the following two conditions are met:

$$(Y_i\,(1),\, Y_i\,(0)) \perp z_i \mid X_i \qquad \text{(A2.3)}$$

$$0 < Pr\,[z_i = 1 \mid X_i] < 1 \qquad \text{(A2.4)}$$

where $Y_i$ is the response variable of the experiment. The first condition states that the allocation of the treatment conditioned by the observed covariates is independent of the effect of the treatment. The second condition instead states that each unit has a non-zero probability of receiving the

treatment. The verification of these conditions allows us to obtain unbiased estimates of the treatment effect to be obtained in the impact analysis.

It is worth noting that the calculation of the Propensity Score should only include variables that were measured in a period prior to the treatment, otherwise they could be affected by the treatment. Comparing the similarity of the treated centres with the untreated sample is a critical step to obtain feedback about the successful implementation of the PSM.

The data needed for the implementation of the PSM were collected from the SEF database, which is made up of monthly reports that the institution draws up and uses for its assessments.

The control group was drawn up by selecting seven centres from a larger pool of 50 centres, which included all the centres of the Jane Furse branch active in the period of the Goal Card program. This pool also satisfies the usual 1:6 ratio of treated and control units.

We adopted a PSM without replacement and chose the Nearest Neighbor matching method, which selects the best control for each centre in the treatment group. This method is part of the "greedy criteria", because the choice of the control unit that is closest to the treated one occurs once, without minimizing the overall measure of the distance between the units. As mentioned above, the variables used for the calculation of the Propensity Score refer to a six-months period prior to the introduction of the Goal Card program. We built a cross-section with the observations equal to the within-centres average of the variables of interest in the six months before the change, that is, from October 2014 to April 2015. The variables involved in the PSM are the following: a) attendance at the fortnightly centre meetings, b) number of arrears, and c) groups savings balances. The choice of these variables was also dictated by the necessity of matching the measures used by SEF to identify the centres of the Jane Furse branch where the Goal Card program would have been launched. We also considered the two other variables available at centre level, namely dropout rate and groups loan cycle, but adding these variables to PSM, matching results were the same.

Table A2.1 reports the summary of balance for the PSM done by using the Nearest Neighbor matching method. Table A2.2 shows the match matrix, i.e. the treated centres and the corresponding matched control centres. Table A2.3 shows that the Nearest Neighbor matching on average performs better than Genetic matching in terms of percent balance improvement, when considering the mean difference and the maximum distance between the two empirical quantile functions of the treated and control groups. The other applicable matching method, Optimal matching, gave the same results as Nearest Neighbor matching. Figures A2.1, A2.2 and A2.3 add further details on the equality between the distributions of the variables involved in the PSM, and compare the control with the treated centres.

**Table A2.1 – Nearest Neighbor Matching – Summary of balance**

**Table A2.1.1 – Summary of balance for all data**

| | Means Treated | Means Control | SD Control | Mean Difference | eQQ Median | eQQ Mean | eQQ Max |
|---|---|---|---|---|---|---|---|
| Propensity Score | 0.233 | 0.125 | 0.107 | 0.108 | 0.123 | 0.097 | 0.181 |
| Attendance | 0.724 | 0.642 | 0.120 | 0.081 | 0.085 | 0.082 | 0.190 |
| Arrears | 0.012 | 0.030 | 0.040 | -0.018 | 0.010 | 0.029 | 0.117 |
| Savings | 24,991 | 16,299 | 9,738 | 8,692 | 6,413 | 7,540 | 21,036 |

**Table A2.1.2 – Summary of balance for matched data**

| | Means Treated | Means Control | SD Control | Mean Difference | eQQ Median | eQQ Mean | eQQ Max |
|---|---|---|---|---|---|---|---|
| Propensity Score | 0.233 | 0.234 | 0.137 | -0.002 | 0.007 | 0.009 | 0.029 |
| Attendance | 0.724 | 0.732 | 0.118 | -0.009 | 0.023 | 0.030 | 0.072 |
| Arrears | 0.012 | 0.015 | 0.029 | -0.003 | 0.010 | 0.009 | 0.029 |
| Savings | 24,991 | 25,053 | 10,079 | -62 | 4,448 | 8,018 | 27,497 |

**Table A2.1.3 – Percent Balance Improvement**

| | Mean Difference | eQQ Median | eQQ Mean | eQQ Max |
|---|---|---|---|---|
| Propensity Score | 98.57 | 94.28 | 90.90 | 84.09 |
| Attendance | 89.16 | 72.55 | 63.56 | 62.28 |
| Arrears | 85.22 | 0.00 | 68.18 | 75.59 |
| Savings | 99.29 | 30.64 | -6.34 | -30.71 |

Note: This table indicates the percentage of improvement for each balance measurement, defined as $100*((|b|-|a|)/|a|)$ where $a$ is the measurement before the assignment and $b$ is the one after the matching. Values close to 100 indicate a better matching.

**Table A2.2 – Nearest Neighbor Matching – Match Matrix**

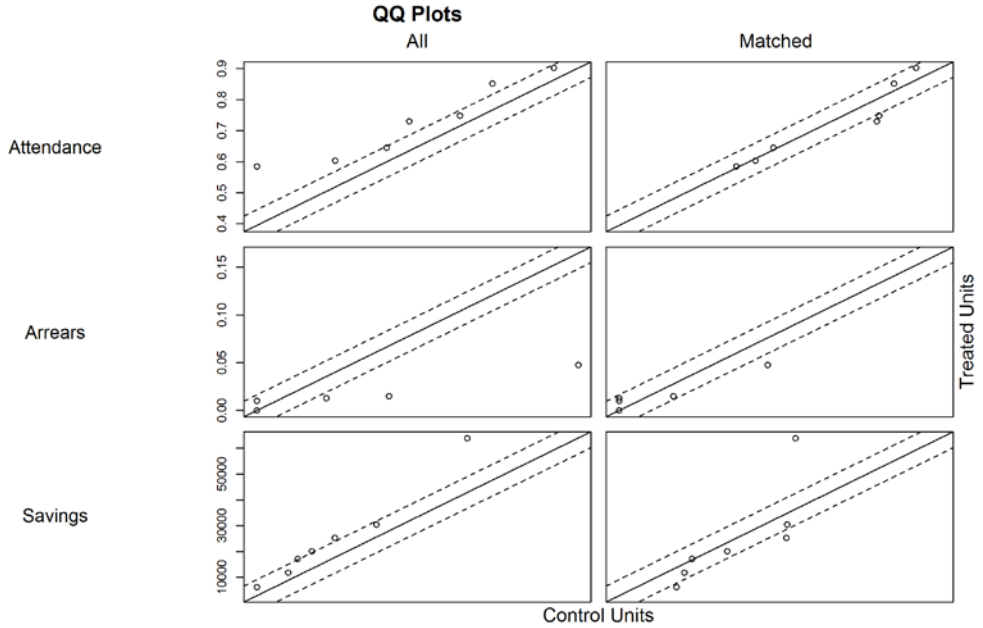
| Centre | Treated | Attendance | Arrears | Savings | Propensity score | Dropout | Loan cycle |
|---|---|---|---|---|---|---|---|
| JAB | 1 | 0.748 | 0.000 | 20,131 | 0.210 | 0.041 | 7.709 |
| JEB | 0 | 0.610 | 0.000 | 36,423 | 0.217 | 0.017 | 11.228 |
| JAX | 1 | 0.852 | 0.015 | 30,403 | 0.333 | 0.026 | 9.823 |
| JBL | 0 | 0.802 | 0.000 | 34,709 | 0.362 | 0.027 | 10.218 |
| JDL | 1 | 0.603 | 0.048 | 11,882 | 0.059 | 0.011 | 9.763 |
| JDO | 0 | 0.638 | 0.076 | 16,774 | 0.059 | 0.058 | 7.634 |
| JEE | 1 | 0.645 | 0.013 | 63,919 | 0.435 | 0.041 | 6.095 |
| JDC | 0 | 0.863 | 0.000 | 34,851 | 0.423 | 0.017 | 8.030 |
| JEL | 1 | 0.585 | 0.000 | 6,182 | 0.075 | 0.041 | 4.215 |
| JDJ | 0 | 0.580 | 0.028 | 15,358 | 0.076 | 0.045 | 6.369 |
| JEN | 1 | 0.902 | 0.000 | 17,123 | 0.307 | 0.051 | 4.005 |
| JDQ | 0 | 0.828 | 0.000 | 23,416 | 0.293 | 0.033 | 11.643 |
| JEQ | 1 | 0.730 | 0.010 | 25,297 | 0.210 | 0.066 | 9.851 |
| JBH | 0 | 0.703 | 0.068 | 21,847 | 0.099 | 0.044 | 7.399 |

Note: Dropout rate and Loan cycle were not included in the PSM.

**Table A2.3 – Genetic matching - Percent Balance Improvement w.r.t. Nearest Neighbor Matching**

| | Mean Diff | eQQ Median | eQQ Mean | eQQ Max |
|---|---|---|---|---|
| Propensity Score | -8,44 | -7,86 | -25,10 | -30,52 |
| Attendance | 7,03 | 12,75 | 18,08 | 17,54 |
| Arrears | 5,10 | 70,83 | 18,25 | 15,69 |
| Savings | -30,44 | 31,80 | 14,87 | -7,47 |
| *Average* | -6,69 | 26,88 | 6,53 | -1,19 |

**Figure A2.1 – Nearest Neighbor Matching – QQ Plot**




Note: If the empirical distribution is the same in the treated group and in the control group, the points inside the QQ plot should be aligned to the 45 degree line. Deviations from the 45 degree line indicate differences in the empirical distribution.

**Figure A2.2 – Nearest Neighbor Matching – Comparison between the treated and the control group before and after PSM.**

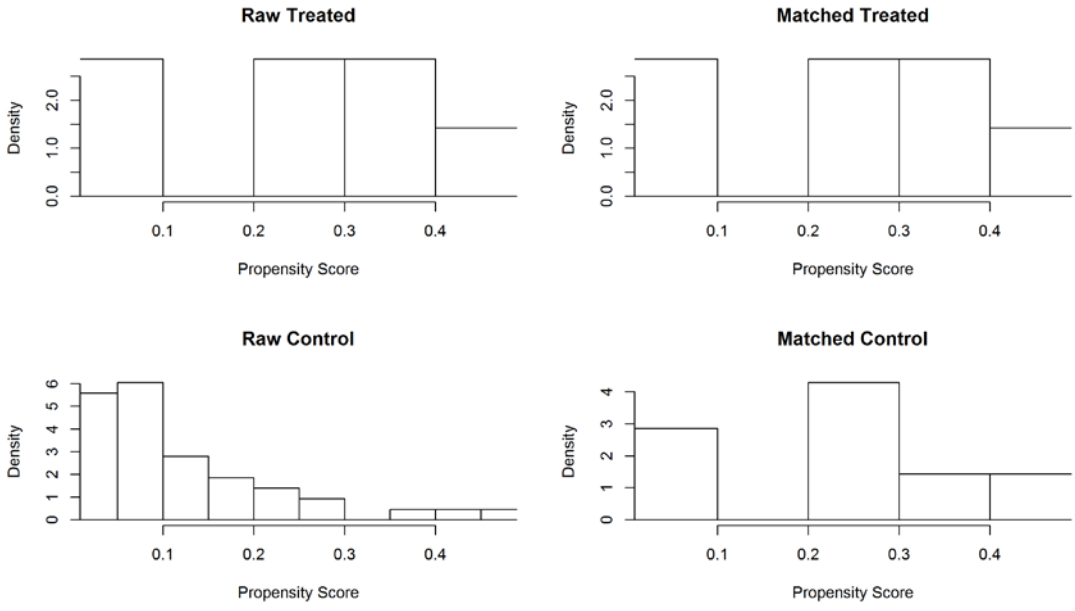
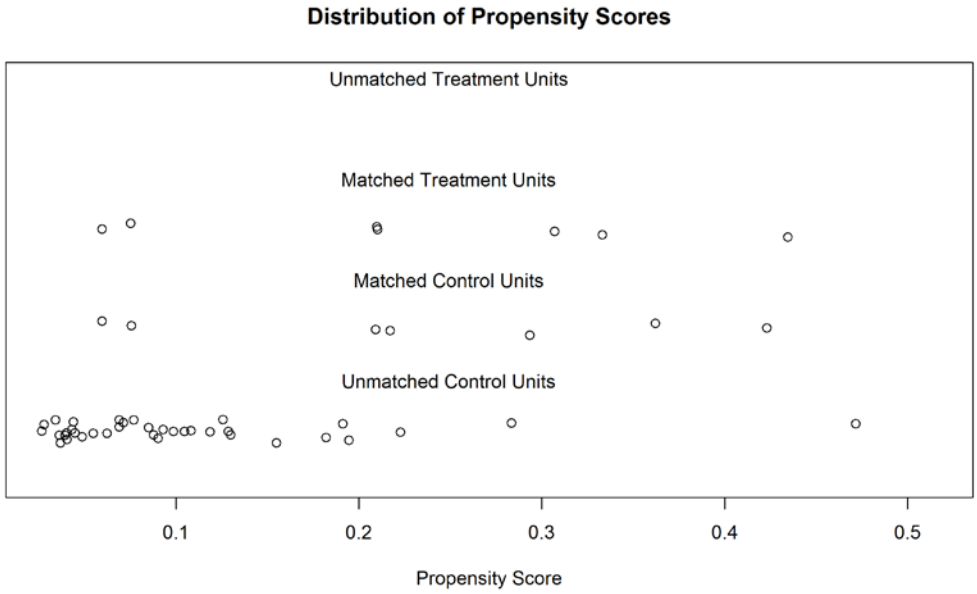


**Figure A2.3 – Nearest Neighbor Matching – Distribution of Propensity Scores**



## Annex 3 - Descriptive Statistics

**Table A3.1 - Descriptive statistics of time-invariant variables**

| **All individuals** | **Obs.** | **Mean** | **Std. Dev.** | **Min** | **p25** | **p50** | **p75** | **Max** |
|---|---|---|---|---|---|---|---|---|
| Age | 309 | 53.2 | 12.3 | 26 | 43 | 53 | 63 | 85 |
| Poverty index | 309 | .589 | .188 | .019 | .488 | .62 | .713 | .99 |
| Years in business | 309 | 7.37 | 3.72 | 1 | 5 | 7 | 10 | 24 |
| Loan cycle | 309 | 12.1 | 6.94 | 2 | 6 | 11 | 17 | 28 |
| Loan amount | 309 | 3,946 | 3,217 | 1,000 | 2,000 | 3,000 | 4,000 | 20,000 |
| Initial savings balance | 309 | 888 | 908 | 0 | 354 | 644 | 1,070 | 6,213 |
| Pre-treatment average savings balance | 309 | 848 | 810 | 0 | 357 | 602 | 1,085 | 5,653 |
| **Treated** | **Obs.** | **Mean** | **Std. Dev.** | **Min** | **p25** | **p50** | **p75** | **Max** |
| Age | 161 | 54.5 | 11.8 | 30 | 46 | 54 | 64 | 84 |
| Poverty index | 161 | .639 | .157 | .162 | .587 | .658 | .727 | .99 |
| Years in business | 161 | 8.22 | 3.62 | 2 | 6 | 9 | 10 | 24 |
| Loan cycle | 161 | 13.9 | 6.87 | 2 | 9 | 13 | 19 | 27 |
| Loan amount | 161 | 3,811 | 3,259 | 1,000 | 2,000 | 2,800 | 4,000 | 20,000 |
| Initial savings balance | 161 | 858 | 799 | 0 | 390 | 667 | 1,030 | 4,850 |
| Pre-treatment average savings balance | 161 | 880 | 807 | 16.6 | 406 | 659 | 1,066 | 5,653 |
| **Control** | **Obs.** | **Mean** | **Std. Dev.** | **Min** | **p25** | **p50** | **p75** | **Max** |
| Age | 148 | 51.7 | 12.8 | 26 | 41 | 51 | 62 | 85 |
| Poverty index | 148 | .534 | .204 | .019 | .396 | .573 | .657 | .99 |
| Years in business | 148 | 6.45 | 3.62 | 1 | 4 | 6 | 9 | 19 |
| Loan cycle | 148 | 10.1 | 6.45 | 3 | 5 | 8 | 14 | 28 |
| Loan amount | 148 | 4,092 | 3,175 | 1,000 | 2,000 | 3,000 | 4,600 | 20,000 |
| Initial savings balance | 148 | 919 | 1,016 | 0 | 302 | 627 | 1,111 | 6,213 |
| Pre-treatment average savings balance | 148 | 813 | 814 | 0 | 297 | 546 | 1,129 | 5,049 |

**Figure A3.1 – Quantile plot by age**

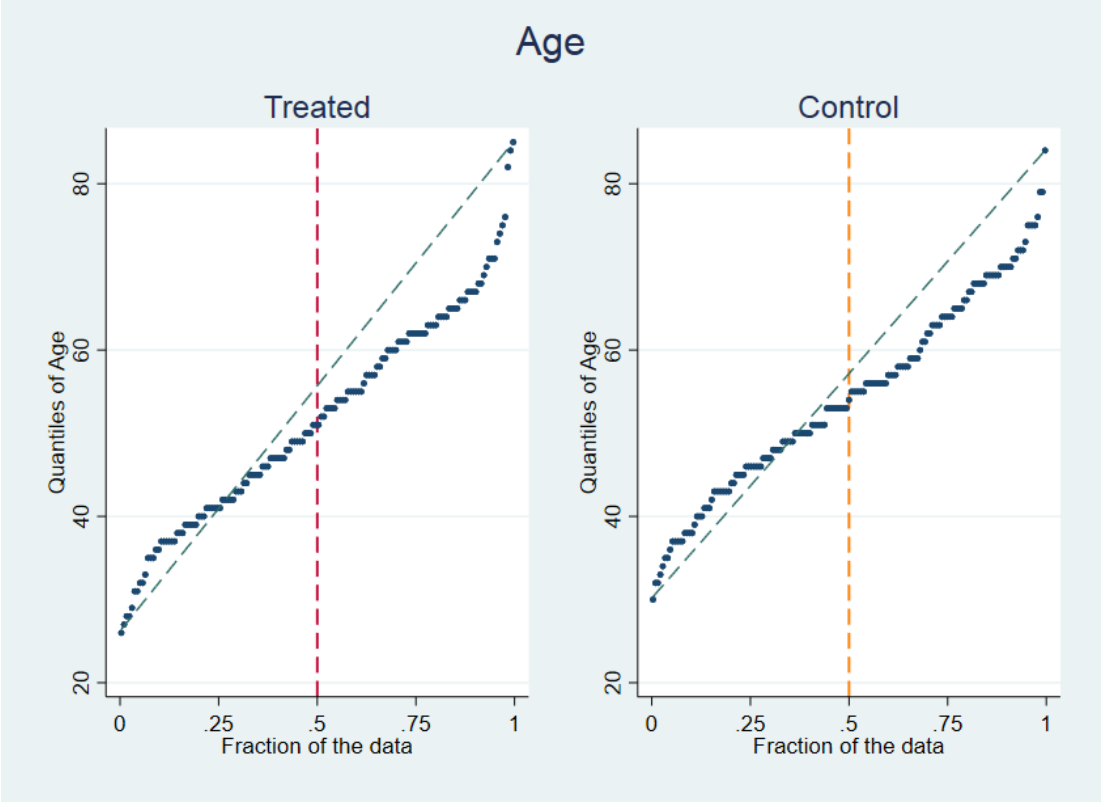



**Figure A3.2 – Quantile Plot by Poverty Index**

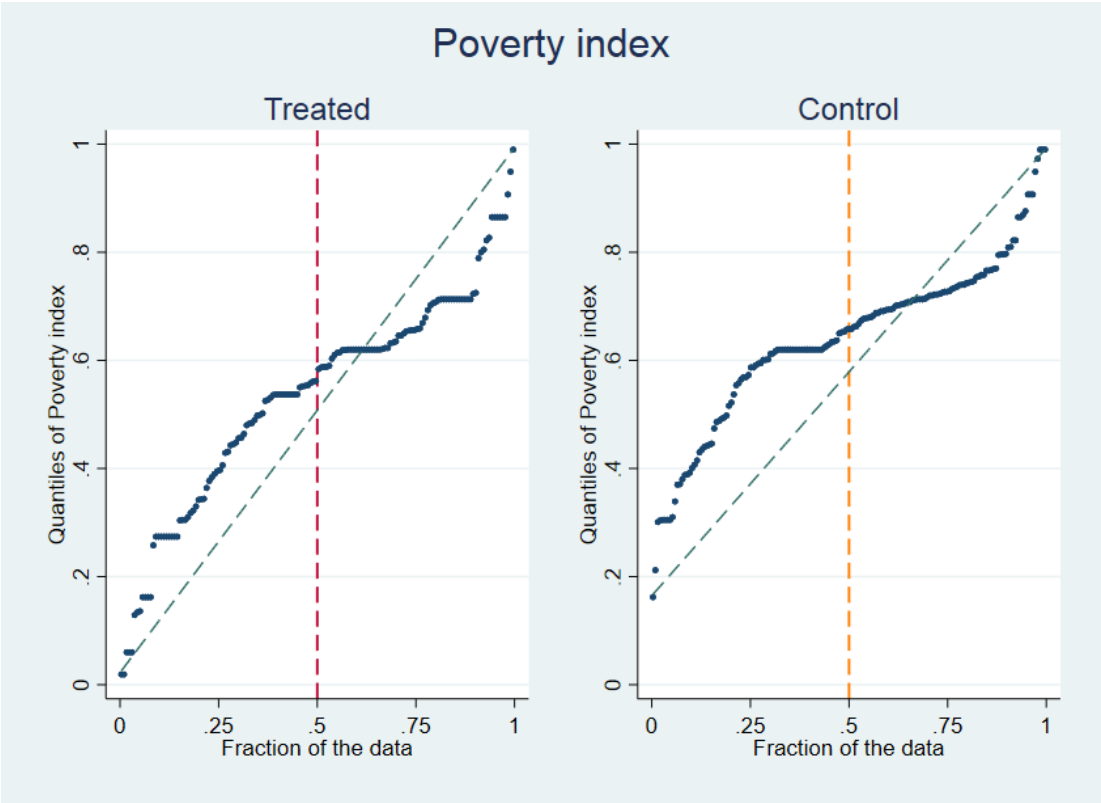


**Figure A3.3 – Quantile plot by loan amount**

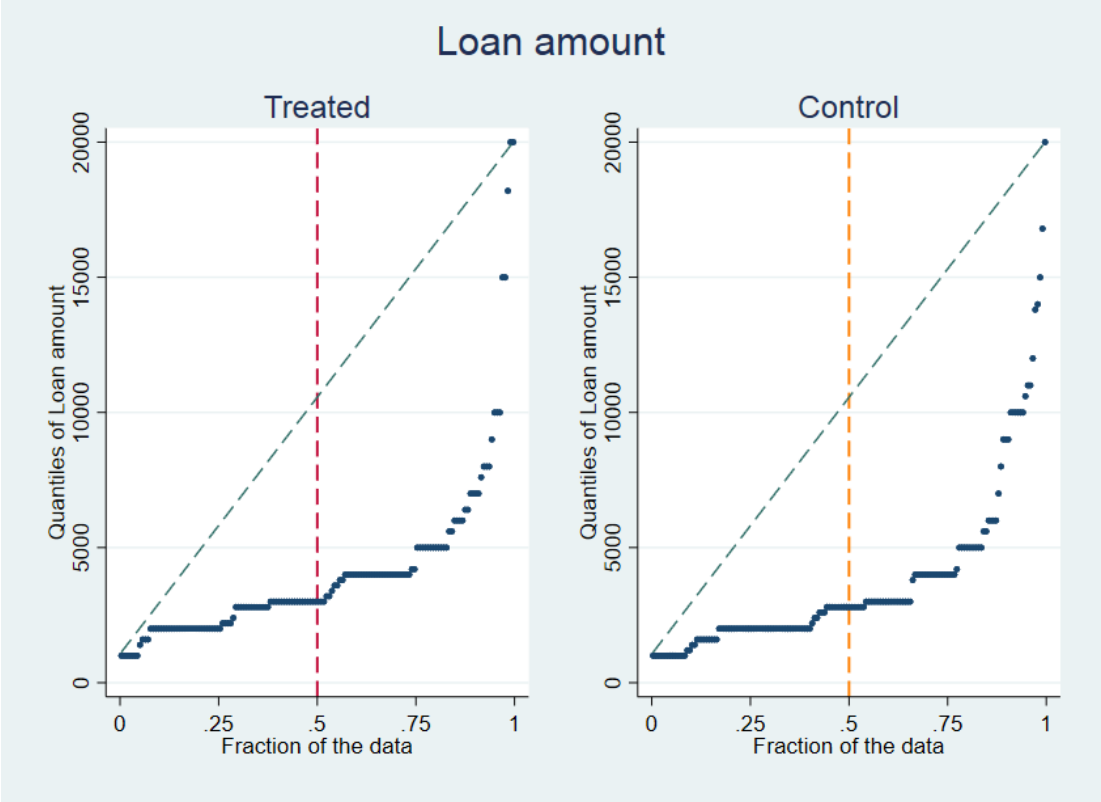



**Figure A3.4 – Quantile plot by loan cycle**

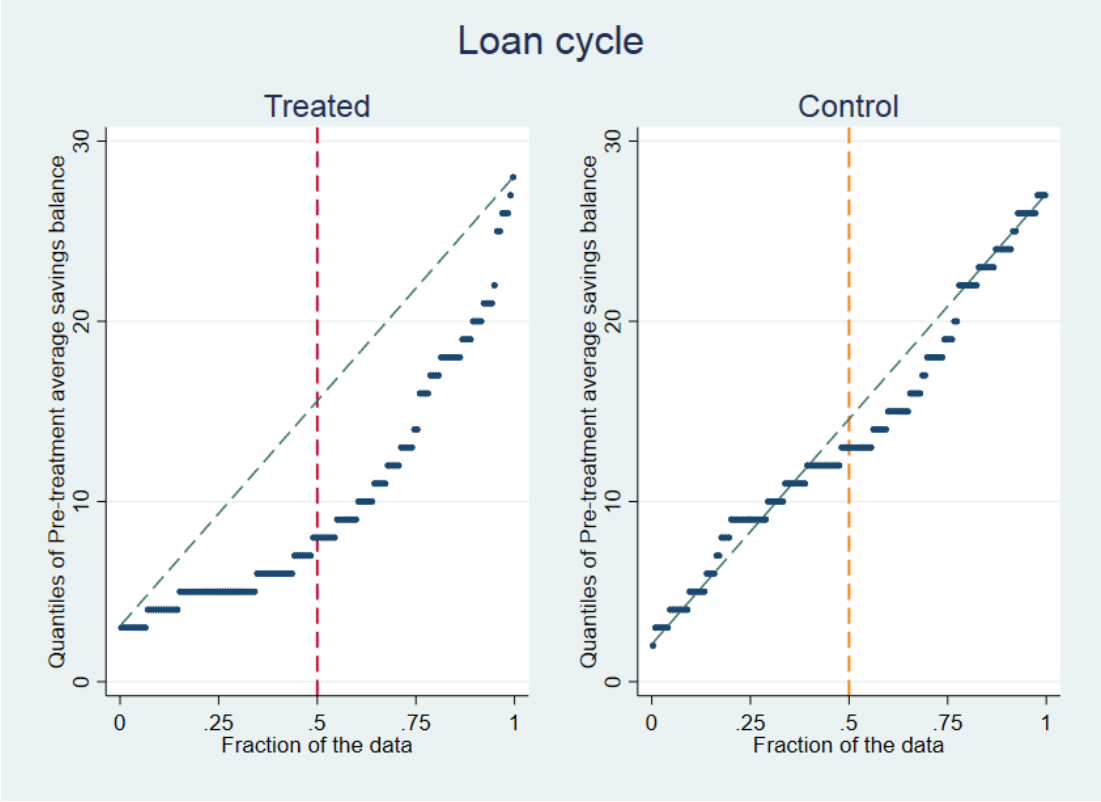


**Figure A3.5 – Quantile plot by initial savings balance**

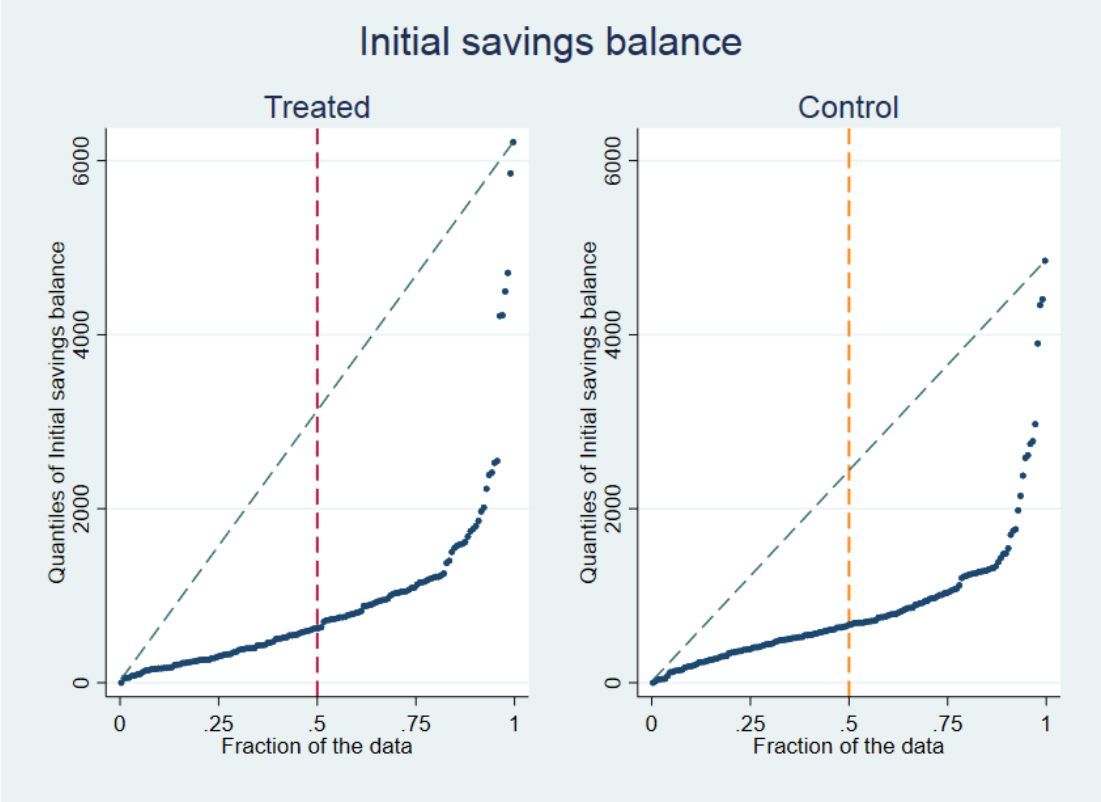
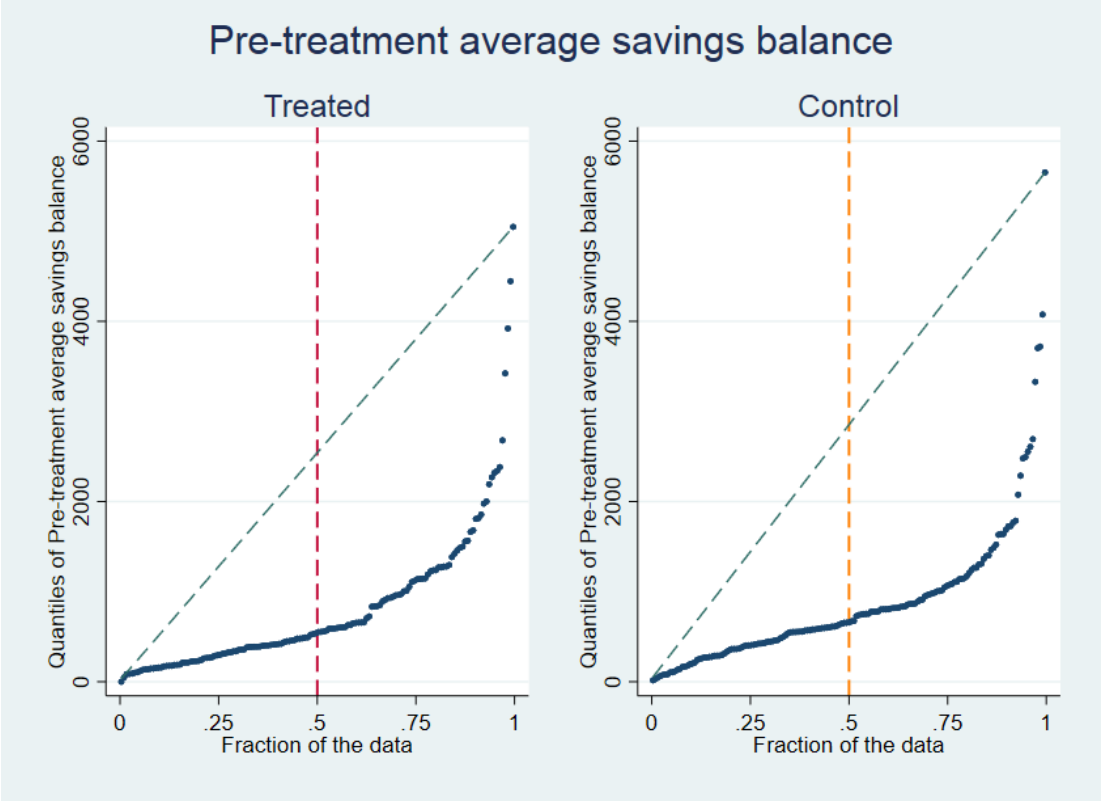



**Figure A3.6 – Quantile plot by pre-treatment average savings balance**



## Annex 4 - Baseline Summary Statistics and Tests of Balance

**Table A4.1 - Baseline summary statistics and tests of balance - Levels**

| | Control | | | | | Treated | | | | | Control - Treatment | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Obs. | Min | Max | Mean | Std. Error | Obs. | Min | Max | Mean | Std. Error | Mean Diff. | Std. Error | p-value | Obs. |
| Age | 161 | 30 | 84 | 54.5 | 11.8 | 148 | 26 | 85 | 51.7 | 12.8 | 2.78** | 1.395 | 0.047 | 309 |
| Poverty index | 161 | 0.162 | 0.990 | 0.639 | 0.157 | 148 | 0.019 | 0.990 | 0.534 | 0.204 | 0.105*** | 0.021 | 0 | 309 |
| Years in business | 161 | 2 | 24 | 8.22 | 3.62 | 148 | 1 | 19 | 6.446 | 3.618 | 1.77*** | 0.412 | 0 | 309 |
| Loan cycle | 161 | 2 | 27 | 13.94 | 6.87 | 148 | 3 | 28 | 10.061 | 6.449 | 3.88*** | 0.760 | 0 | 309 |
| Loan amount | 161 | 1,000 | 20,000 | 3,811 | 3,259 | 148 | 1,000 | 20,000 | 4,092 | 3,175 | -281 | 367 | 0.444 | 309 |
| Initial savings balance | 161 | 0 | 4,850 | 858 | 799 | 148 | 0 | 6,213 | 919 | 1,016 | -60.9 | 103 | 0.557 | 309 |
| Pre-treatment average savings balance | 161 | 16.6 | 5,653 | 880 | 807 | 148 | 0 | 5,049 | 813 | 814 | 67.9 | 92.3 | 0.462 | 309 |

* p < 0.10, ** p < 0.05, *** p < 0.01

**Table A4.2 - Baseline summary statistics and tests of balance - Log**

| | Control | | | | | Treated | | | | | Control - Treatment | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Obs. | Min | Max | Mean | Std. Error | Obs. | Min | Max | Mean | Std. Error | Mean Diff. | Std. Error | p-value | Obs. |
| Age (ln) | 161 | 3.434 | 4.443 | 3.993 | 0.218 | 148 | 3.296 | 4.454 | 3.935 | 0.251 | 0.059** | 0.027 | 0.029 | 309 |
| Poverty index (ln) | 161 | 0.150 | 0.688 | 0.489 | 0.099 | 148 | 0.019 | 0.688 | 0.419 | 0.141 | 0.071*** | 0.014 | 0 | 309 |
| Years in business (ln) | 161 | 1.099 | 3.219 | 2.138 | 0.430 | 148 | 0.693 | 2.996 | 1.887 | 0.504 | 0.251*** | 0.053 | 0 | 309 |
| Loan cycle (ln) | 161 | 1.099 | 3.332 | 2.580 | 0.530 | 148 | 1.386 | 3.367 | 2.247 | 0.554 | 0.333*** | 0.062 | 0 | 309 |
| Loan amount (ln) | 161 | 6.909 | 9.904 | 7.997 | 0.668 | 148 | 6.909 | 9.904 | 8.127 | 0.585 | -0.130* | 0.072 | 0.071 | 309 |
| Initial savings balance (ln) | 161 | 0 | 8.487 | 6.371 | 1.038 | 148 | 0 | 8.735 | 6.352 | 1.090 | 0.020 | 0.121 | 0.872 | 309 |
| Pre-treatment average savings balance (ln) | 161 | 2.870 | 8.640 | 6.428 | 0.915 | 148 | 0 | 8.527 | 6.270 | 1.042 | 0.158 | 0.111 | 0.158 | 309 |

* p < 0.10, ** p < 0.05, *** p < 0.01

## Annex 5 - Correlation Matrix

**Table A5.1 - Correlation matrix - Levels**

| | (1) Age | (2) Poverty index | (3) Years in business | (4) Loan cycle | (5) Loan amount | (6) Initial savings balance | (7) Pre-treatment average savings balance |
|---|---|---|---|---|---|---|---|
| Treated | -0.113** | -0.278*** | -0.238*** | -0.280*** | 0.044 | 0.034 | -0.042 |
| | (0.047) | (0.000) | (0.000) | (0.000) | (0.444) | (0.557) | (0.462) |
| Age | 1.000 | -0.407*** | 0.113** | 0.133** | 0.109* | 0.135** | 0.163*** |
| | | (0.000) | (0.046) | (0.019) | (0.055) | (0.017) | (0.004) |
| Poverty index | -0.407*** | 1.000 | -0.005 | 0.036 | -0.124** | -0.145** | -0.159*** |
| | (0.000) | | (0.933) | (0.533) | (0.030) | (0.011) | (0.005) |
| Years in business | 0.113** | -0.005 | 1.000 | 0.617*** | 0.110* | 0.063 | 0.132** |
| | (0.046) | (0.933) | | (0.000) | (0.053) | (0.272) | (0.020) |
| Loan cycle | 0.133** | 0.036 | 0.617*** | 1.000 | 0.244*** | 0.112** | 0.168*** |
| | (0.019) | (0.533) | (0.000) | | (0.000) | (0.050) | (0.003) |
| Loan amount | 0.109* | -0.124** | 0.110* | 0.244*** | 1.000 | 0.587*** | 0.578*** |
| | (0.055) | (0.030) | (0.053) | (0.000) | | (0.000) | (0.000) |
| Initial savings balance | 0.135** | -0.145** | 0.063 | 0.112** | 0.587*** | 1.000 | 0.863*** |
| | (0.017) | (0.011) | (0.272) | (0.050) | (0.000) | | (0.000) |
| Pre-treatment average savings balance | 0.163*** | -0.159*** | 0.132** | 0.168*** | 0.578*** | 0.863*** | 1.000 |
| | (0.004) | (0.005) | (0.020) | (0.003) | (0.000) | (0.000) | |
| No. of observations | 309 | 309 | 309 | 309 | 309 | 309 | 309 |

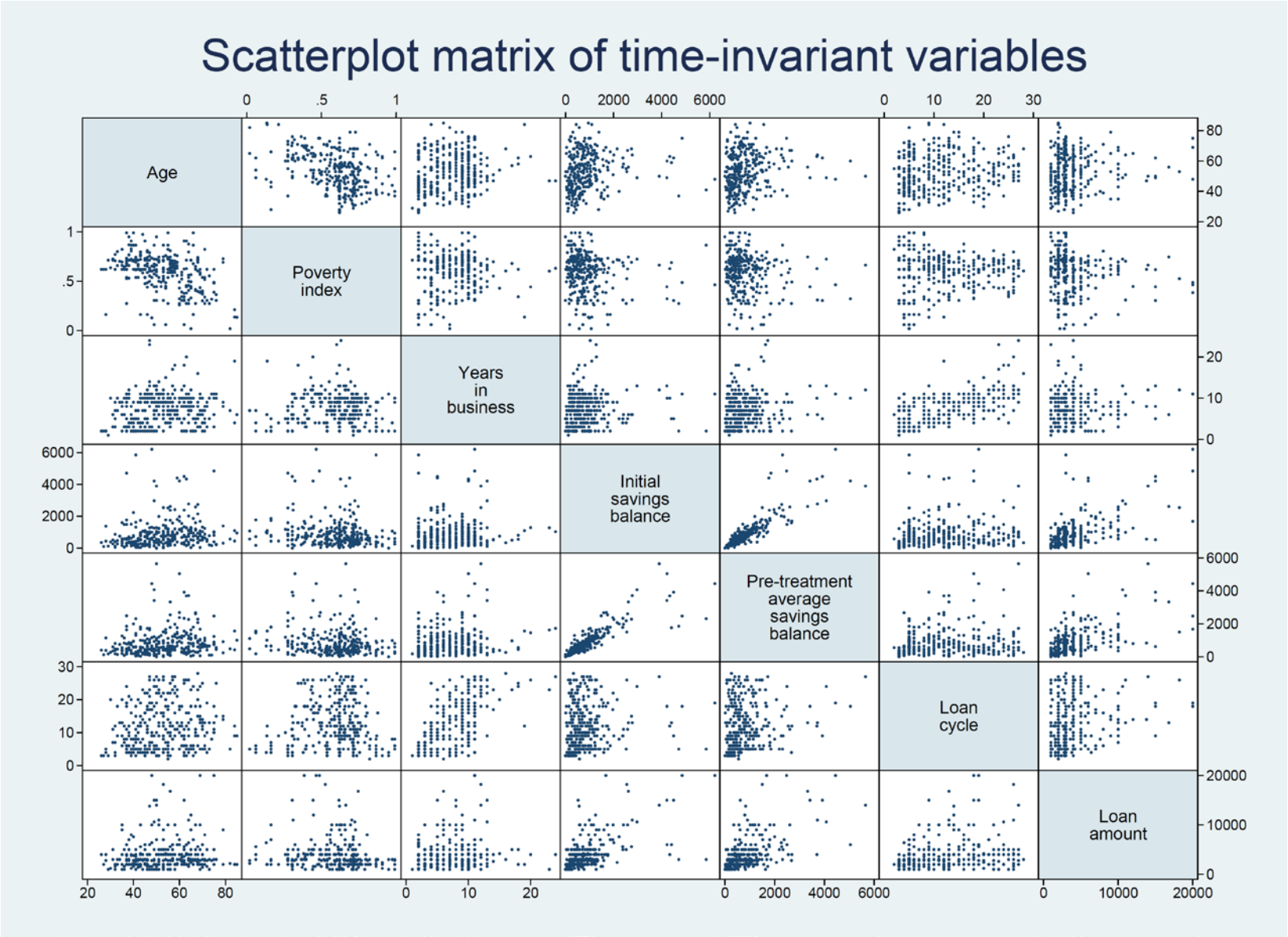
*p*-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

**Table A5.1 - Correlation matrix - Log**

| | (1) Age (ln) | (2) Poverty index (ln) | (3) Years in business (ln) | (4) Loan cycle (ln) | (5) Loan amount (ln) | (6) Initial savings balance (ln) | (7) Pre-treatment average savings balance (ln) |
|---|---|---|---|---|---|---|---|
| Treated | -0.124** | -0.281*** | -0.260*** | -0.294*** | 0.103* | -0.009 | -0.081 |
| | (0.029) | (0.000) | (0.000) | (0.000) | (0.071) | (0.872) | (0.158) |
| Age (ln) | 1.000 | -0.382*** | 0.169*** | 0.173*** | 0.147*** | 0.212*** | 0.201*** |
| | | (0.000) | (0.003) | (0.002) | (0.010) | (0.000) | (0.000) |
| Poverty index (ln) | -0.382*** | 1.000 | 0.027 | 0.067 | -0.142** | -0.151*** | -0.177*** |
| | (0.000) | | (0.642) | (0.241) | (0.013) | (0.008) | (0.002) |
| Years in business (ln) | 0.169*** | 0.027 | 1.000 | 0.612*** | 0.106* | 0.153*** | 0.157*** |
| | (0.003) | (0.642) | | (0.000) | (0.063) | (0.007) | (0.006) |
| Loan cycle (ln) | 0.173*** | 0.067 | 0.612*** | 1.000 | 0.264*** | 0.207*** | 0.199*** |
| | (0.002) | (0.241) | (0.000) | | (0.000) | (0.000) | (0.000) |
| Loan amount (ln) | 0.147*** | -0.142** | 0.106* | 0.264*** | 1.000 | 0.560*** | 0.544*** |
| | (0.010) | (0.013) | (0.063) | (0.000) | | (0.000) | (0.000) |
| Initial savings balance | 0.212*** | -0.151*** | 0.153*** | 0.207*** | 0.560*** | 1.000 | 0.895*** |
| (ln) | (0.000) | (0.008) | (0.007) | (0.000) | (0.000) | | (0.000) |
| Pre-treatment average | 0.201*** | -0.177*** | 0.157*** | 0.199*** | 0.544*** | 0.895*** | 1.000 |
| savings balance (ln) | (0.000) | (0.002) | (0.006) | (0.000) | (0.000) | (0.000) | |
| No. of observations | 309 | 309 | 309 | 309 | 309 | 309 | 309 |

*p*-values in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

**Figure A5.1 – Scatterplot matrix of time-invariant variables**



## Annex 6 - Parallel Trend

**Table A6.1 – Pre-Treatment and Treatment Simple Differences - Random effects regressions**

| | (1) **Savings balance** (ln) (Pre-treatment) | (2) **Savings balance** (ln) (Treatment) | (3) **Savings balance** (levels) (Pre-treatment) | (4) **Savings balance** (levels) (Treatment) |
|---|---|---|---|---|
| Treated | -0.163 | 0.122 | -67.915 | 258.276** |
| | (0.113) | (0.122) | (92.202) | (122.787) |
| Constant | 6.387*** | 6.313*** | 880.433*** | 871.892*** |
| | (0.073) | (0.075) | (63.542) | (72.710) |
| No. of observations | 4,326 | 8,034 | 4,326 | 8,034 |
| No. of clients | 309 | 309 | 309 | 309 |
| R-squared: within | . | 3.51e-32 | 1.59e-33 | 4.20e-34 |
| R-squared: between | .00678 | .00328 | .00176 | .0145 |
| R-squared: overall | .00616 | .0027 | .00156 | .0119 |

Standard errors clustered at individual level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

**Figure A6.1 – Savings balance trend, fitted curves - Log**

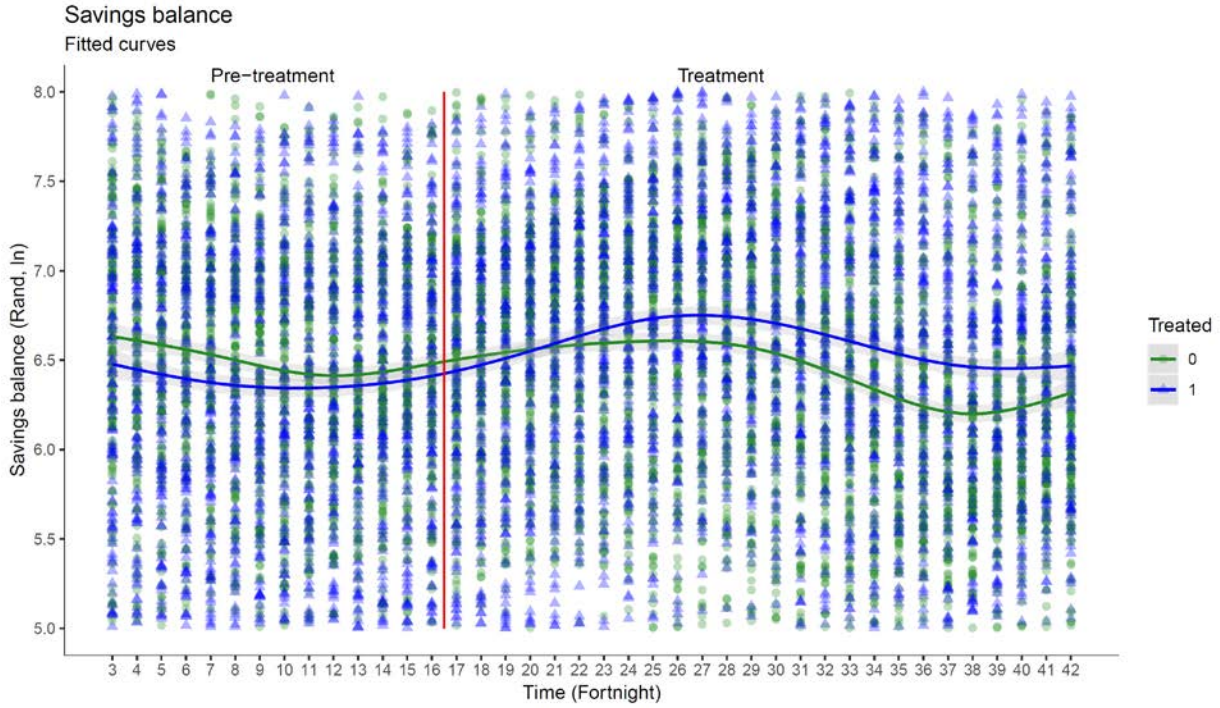


**Figure A6.2 – Savings balance trend, fitted curves - Levels**

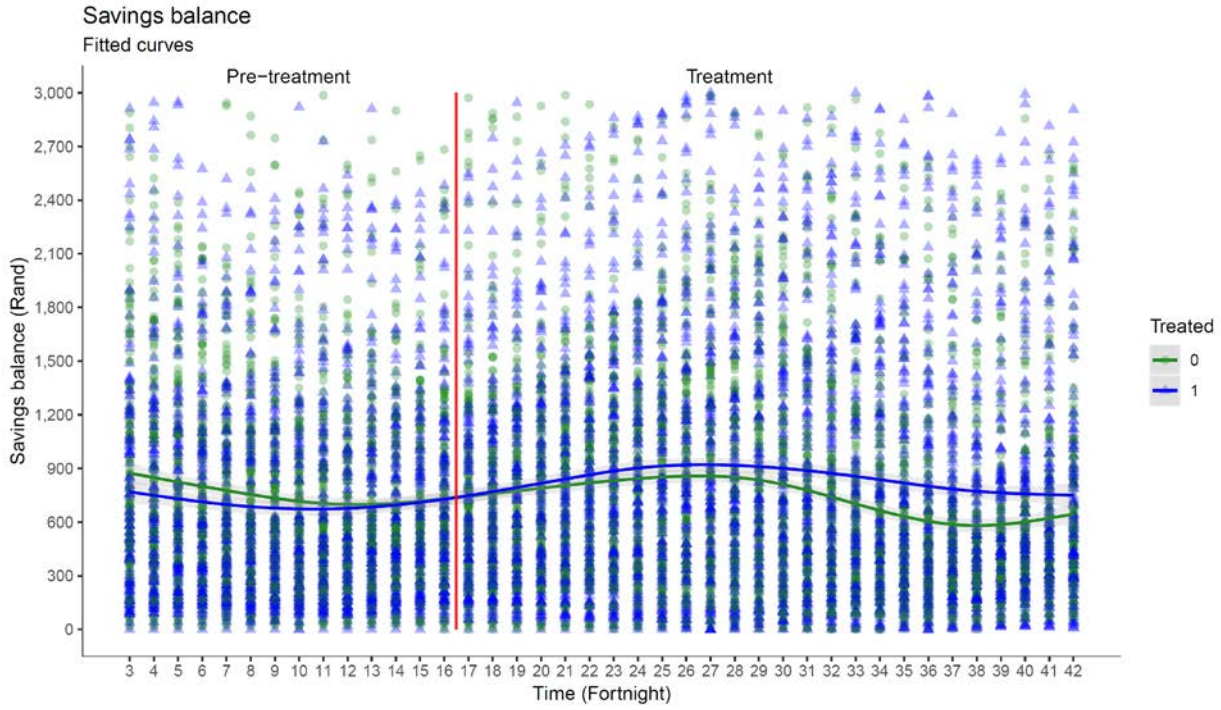



**Figure A6.3 – Savings balance trend**

## Annex 7 - Difference in Differences Estimates

### Table A7.1 - Treated vs. Non-Treated

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** |
| | (FE) | (RE) | (RE) | (RE) |
| Treated | 0.000 | -0.163 | -0.245* | -0.037 |
| | (.) | (0.113) | (0.140) | (0.124) |
| Program | -0.074*** | -0.074 | -0.074 | -0.074 |
| | (0.014) | (0.045) | (0.045) | (0.045) |
| Treated * Program | 0.284*** | 0.284*** | 0.284*** | 0.284*** |
| | (0.021) | (0.079) | (0.079) | (0.079) |
| Age (ln) | | | 0.232 | 0.022 |
| | | | (0.229) | (0.210) |
| Poverty index (ln) | | | -0.716* | -0.557 |
| | | | (0.429) | (0.391) |
| Years in business (ln) | | | -0.057 | -0.048 |
| | | | (0.127) | (0.125) |
| Loan cycle (ln) | | | -0.056 | -0.027 |
| | | | (0.104) | (0.096) |
| Loan amount (ln) | | | 0.849*** | 0.944*** |
| | | | (0.079) | (0.077) |
| DF=1 | | | 0.000 | |
| | | | (.) | |
| DF=2 | | | 0.039 | |
| | | | (0.477) | |
| DF=3 | | | 1.238*** | |
| | | | (0.422) | |
| DF=4 | | | 1.247*** | |
| | | | (0.431) | |
| DF=5 | | | 1.218*** | |
| | | | (0.407) | |
| DF=6 | | | 1.193*** | |
| | | | (0.432) | |
| Centre=1 | | | | 0.000 |
| | | | | (.) |
| Centre=2 | | | | -0.759*** |
| | | | | (0.131) |
| Centre=3 | | | | -0.129 |
| | | | | (0.152) |
| Centre=4 | | | | -0.212 |
| | | | | (0.209) |
| Centre=5 | | | | 0.295** |
| | | | | (0.148) |
| Centre=6 | | | | -0.914*** |
| | | | | (0.247) |
| Centre=7 | | | | -0.038 |
| | | | | (0.193) |
| Centre=8 | | | | -1.382*** |
| | | | | (0.395) |
| Centre=9 | | | | -0.369*** |
| | | | | (0.137) |
| Centre=10 | | | | 0.000 |
| | | | | (.) |
| Centre=11 | | | | -0.174 |
| | | | | (0.176) |
| Centre=12 | | | | -1.550*** |
| | | | | (0.257) |
| Centre=13 | | | | 0.170 |
| | | | | (0.147) |
| Centre=14 | | | | -0.476*** |
| | | | | (0.107) |
| Constant | 6.309*** | 6.387*** | -1.865 | -0.616 |
| | (0.008) | (0.073) | (1.162) | (1.007) |
| No. of observations | 12,360 | 12,360 | 12,360 | 12,360 |
| No. of clients | 309 | 309 | 309 | 309 |
| R-squared: within | .018 | .018 | .018 | .018 |
| R-squared: between | .000127 | .000127 | .456 | .555 |
| R-squared: overall | .00238 | .00442 | .351 | .426 |
| Hausman test chi-squared | 7.64e-11 | | | |
| Hausman test p-value for the chi-squared | 1 | | | |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Column (1) reports fixed-effects (FE) estimates, whereas columns (2)-(4) report random-effects (RE) estimates. * p < 0.10, ** p < 0.05, *** p < 0.01

## Table A7.2 - Goal Card vs. Non-Treated

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** |
| | (FE) | (RE) | (RE) | (RE) |
| Goal Card | 0.000 | 0.220 | 0.593*** | -0.155 |
| | (.) | (0.166) | (0.212) | (0.156) |
| Program | -0.074*** | -0.074 | -0.074 | -0.074 |
| | (0.014) | (0.045) | (0.045) | (0.045) |
| Goal Card * Program | 0.537*** | 0.537*** | 0.537*** | 0.537*** |
| | (0.030) | (0.127) | (0.127) | (0.127) |
| Age (ln) | | | 0.304 | 0.106 |
| | | | (0.230) | (0.218) |
| Poverty index (ln) | | | -0.169 | -0.265 |
| | | | (0.489) | (0.465) |
| Years in business (ln) | | | 0.120 | 0.070 |
| | | | (0.172) | (0.181) |
| Loan cycle (ln) | | | -0.071 | -0.042 |
| | | | (0.132) | (0.129) |
| Loan amount (ln) | | | 0.843*** | 0.871*** |
| | | | (0.092) | (0.098) |
| DF=1 | | | 0.000 | |
| | | | (.) | |
| DF=2 | | | 0.266 | |
| | | | (0.592) | |
| DF=3 | | | 1.236*** | |
| | | | (0.437) | |
| DF=4 | | | 0.213 | |
| | | | (0.465) | |
| DF=5 | | | 1.171*** | |
| | | | (0.408) | |
| DF=6 | | | 0.551 | |
| | | | (0.438) | |
| Centre=1 | | | | 0.000 |
| | | | | (.) |
| Centre=3 | | | | -0.214 |
| | | | | (0.165) |
| Centre=4 | | | | -0.250 |
| | | | | (0.223) |
| Centre=5 | | | | 0.238 |
| | | | | (0.165) |
| Centre=6 | | | | -0.868*** |
| | | | | (0.246) |
| Centre=7 | | | | -0.005 |
| | | | | (0.221) |
| Centre=8 | | | | -1.322*** |
| | | | | (0.413) |
| Centre=9 | | | | -0.361*** |
| | | | | (0.135) |
| Centre=10 | | | | 0.000 |
| | | | | (.) |
| Centre=11 | | | | 0.120 |
| | | | | (0.215) |
| Centre=12 | | | | -0.373 |
| | | | | (0.425) |
| Centre=13 | | | | 0.406** |
| | | | | (0.171) |
| Centre=14 | | | | -0.593*** |
| | | | | (0.151) |
| Constant | 6.433*** | 6.387*** | -2.640* | -0.701 |
| | (0.010) | (0.073) | (1.377) | (1.282) |
| No. of observations | 8,120 | 8,120 | 8,120 | 8,120 |
| No. of clients | 203 | 203 | 203 | 203 |
| R-squared: within | .0403 | .0403 | .0403 | .0403 |
| R-squared: between | .064 | .064 | .428 | .472 |
| R-squared: overall | .0555 | .0581 | .332 | .365 |
| Hausman test chi-squared | -6.46e-12 | | | |
| Hausman test p-value for the chi-squared | 1 | | | |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Column (1) reports fixed-effects (FE) estimates, whereas columns (2)-(4) report random-effects (RE) estimates. * p < 0.10, ** p < 0.05, *** p < 0.01

## Table A7.3 - Treated Non-Goal Card vs. Non-Treated

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** |
| | (FE) | (RE) | (RE) | (RE) |
| Treated Non-Goal Card | 0.000 | -0.314** | -0.368** | 0.024 |
| | (.) | (0.125) | (0.145) | (0.143) |
| Program | -0.074*** | -0.074 | -0.074 | -0.074 |
| | (0.014) | (0.045) | (0.045) | (0.045) |
| Treated Non-Goal Card * Program | 0.184*** | 0.184** | 0.184** | 0.184** |
| | (0.023) | (0.088) | (0.088) | (0.088) |
| Age (ln) | | | 0.241 | 0.036 |
| | | | (0.237) | (0.231) |
| Poverty index (ln) | | | -0.695 | -0.509 |
| | | | (0.479) | (0.450) |
| Years in business (ln) | | | 0.046 | -0.001 |
| | | | (0.124) | (0.128) |
| Loan cycle (ln) | | | -0.086 | -0.024 |
| | | | (0.106) | (0.102) |
| Loan amount (ln) | | | 0.867*** | 0.913*** |
| | | | (0.082) | (0.082) |
| DF=1 | | | 0.000 | |
| | | | (.) | |
| DF=2 | | | 0.138 | |
| | | | (0.466) | |
| DF=3 | | | 1.248*** | |
| | | | (0.416) | |
| DF=4 | | | 1.398*** | |
| | | | (0.428) | |
| DF=5 | | | 1.206*** | |
| | | | (0.400) | |
| DF=6 | | | 0.834* | |
| | | | (0.434) | |
| Centre=1 | | | | 0.000 |
| | | | | (.) |
| Centre=2 | | | | -0.748*** |
| | | | | (0.146) |
| Centre=3 | | | | -0.162 |
| | | | | (0.153) |
| Centre=4 | | | | -0.228 |
| | | | | (0.209) |
| Centre=5 | | | | 0.275* |
| | | | | (0.148) |
| Centre=6 | | | | -0.894*** |
| | | | | (0.247) |
| Centre=7 | | | | -0.239* |
| | | | | (0.128) |
| Centre=8 | | | | -1.358*** |
| | | | | (0.401) |
| Centre=9 | | | | -0.364*** |
| | | | | (0.135) |
| Centre=10 | | | | 0.000 |
| | | | | (.) |
| Centre=11 | | | | -0.357 |
| | | | | (0.238) |
| Centre=12 | | | | -1.630*** |
| | | | | (0.266) |
| Centre=13 | | | | 0.100 |
| | | | | (0.185) |
| Centre=14 | | | | -0.439*** |
| | | | | (0.133) |
| Constant | 6.263*** | 6.387*** | -2.173* | -0.550 |
| | (0.009) | (0.073) | (1.185) | (1.088) |
| No. of observations | 10,680 | 10,680 | 10,680 | 10,680 |
| No. of clients | 267 | 267 | 267 | 267 |
| R-squared: within | .00635 | .00635 | .00635 | .00635 |
| R-squared: between | .00952 | .00952 | .48 | .553 |
| R-squared: overall | .00213 | .00878 | .37 | .426 |
| Hausman test chi-squared | -2.60e-11 | | | |
| Hausman test p-value for the chi-squared | 1 | | | |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Column (1) reports fixed-effects (FE) estimates, whereas columns (2)-(4) report random-effects (RE) estimates. * p < 0.10, ** p < 0.05, *** p < 0.01

**Table A7.4 - Goal Card vs. Treated Non-Goal Card**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** |
| | (FE) | (RE) | (RE) | (RE) |
| Goal card | 0.000 | 0.534*** | 0.179 | 0.013 |
| | (.) | (0.180) | (0.149) | (0.145) |
| Program | 0.110*** | 0.110 | 0.110 | 0.110 |
| | (0.019) | (0.075) | (0.075) | (0.075) |
| Goal Card * Program | 0.353*** | 0.353** | 0.353** | 0.353** |
| | (0.036) | (0.141) | (0.141) | (0.141) |
| Age (ln) | | | 0.211 | -0.039 |
| | | | (0.331) | (0.318) |
| Poverty index (ln) | | | -1.085** | -0.794 |
| | | | (0.551) | (0.516) |
| Years in business (ln) | | | -0.167 | -0.226 |
| | | | (0.164) | (0.164) |
| Loan cycle (ln) | | | -0.178 | -0.039 |
| | | | (0.131) | (0.132) |
| Loan amount (ln) | | | 0.999*** | 1.032*** |
| | | | (0.099) | (0.099) |
| DF=2 | | | 0.000 | |
| | | | (.) | |
| DF=3 | | | 1.079*** | |
| | | | (0.268) | |
| DF=4 | | | 1.234*** | |
| | | | (0.253) | |
| DF=6 | | | 1.159*** | |
| | | | (0.274) | |
| Centre=1 | | | | 0.000 |
| | | | | (.) |
| Centre=2 | | | | -0.680*** |
| | | | | (0.146) |
| Centre=7 | | | | -0.266 |
| | | | | (0.189) |
| Centre=11 | | | | -0.306* |
| | | | | (0.177) |
| Centre=12 | | | | -1.602*** |
| | | | | (0.273) |
| Centre=13 | | | | 0.152 |
| | | | | (0.166) |
| Centre=14 | | | | -0.438*** |
| | | | | (0.128) |
| Constant | 6.225*** | 6.073*** | -2.592** | -0.643 |
| | (0.013) | (0.101) | (1.225) | (1.247) |
| No. of observations | 5,920 | 5,920 | 5,920 | 5,920 |
| No. of clients | 148 | 148 | 148 | 148 |
| R-squared: within | .0431 | .0431 | .0431 | .0431 |
| R-squared: between | .105 | .105 | .627 | .675 |
| R-squared: overall | .0669 | .09 | .484 | .519 |
| Hausman test chi-squared | 3.42e-13 | | | |
| Hausman test p-value for the chi-squared | 1 | | | |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Column (1) reports fixed-effects (FE) estimates, whereas columns (2)-(4) report random-effects (RE) estimates. * p < 0.10, ** p < 0.05, *** p < 0.01

## Annex 8 - Difference in Differences Estimates by Quartiles

**Table A8.1 - Treated vs. Non-Treated by quartiles of age**

| | Savings balance (ln) | | | | |
|---|---|---|---|---|---|
| | Population | 1st Quartile | 2nd Quartile | 3rd Quartile | 4th Quartile |
| Age | 26-85 | 26-43 | 44-53 | 54-63 | 64-85 |
| Treated | -0.163 | -0.275 | -0.440 | 0.187 | 0.021 |
| | (0.113) | (0.200) | (0.269) | (0.202) | (0.206) |
| Program | -0.074 | -0.153** | -0.165* | 0.024 | 0.000 |
| | (0.045) | (0.078) | (0.095) | (0.098) | (0.078) |
| Treated*Program | 0.284*** | 0.127 | 0.575*** | 0.246* | 0.267 |
| | (0.079) | (0.160) | (0.134) | (0.138) | (0.183) |
| Constant | 6.387*** | 6.196*** | 6.329*** | 6.475*** | 6.517*** |
| | (0.073) | (0.153) | (0.143) | (0.148) | (0.133) |
| No. of observations | 12,360 | 3,120 | 3,320 | 3,040 | 2,880 |
| No. of clients | 309 | 78 | 83 | 76 | 72 |
| R-squared: within | .018 | .00553 | .0608 | .0382 | .0262 |
| R-squared: between | .000127 | .00979 | .000866 | .0439 | .0145 |
| R-squared: overall | .00442 | .00846 | .0132 | .0425 | .0178 |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Random-effects (RE) estimates.
* p < 0.10, ** p < 0.05, *** p < 0.01

**Table A8.2 - Treated vs. Non-Treated by quartiles of poverty index**

| | Savings balance (ln) | | | | |
|---|---|---|---|---|---|
| | Population | 1st Quartile | 2nd Quartile | 3rd Quartile | 4th Quartile |
| Poverty index | 0.019-0.99 | 0.019-0.488 | 0.488-0.62 | 0.62-0.713 | 0.713-0.99 |
| Treated | -0.163 | 0.081 | 0.072 | -0.420** | -0.982** |
| | (0.113) | (0.183) | (0.211) | (0.207) | (0.425) |
| Program | -0.074 | -0.153 | -0.079 | 0.050 | -0.126** |
| | (0.045) | (0.139) | (0.094) | (0.089) | (0.060) |
| Treated*Program | 0.284*** | 0.395** | 0.263* | 0.030 | 0.594** |
| | (0.079) | (0.176) | (0.146) | (0.148) | (0.263) |
| Constant | 6.387*** | 6.601*** | 5.971*** | 6.580*** | 6.459*** |
| | (0.073) | (0.128) | (0.179) | (0.138) | (0.103) |
| No. of observations | 12,360 | 3,120 | 3,600 | 3,000 | 2,640 |
| No. of clients | 309 | 78 | 90 | 75 | 66 |
| R-squared: within | .018 | .0337 | .0145 | .00325 | .0555 |
| R-squared: between | .000127 | .0382 | .0142 | .0514 | .0596 |
| R-squared: overall | .00442 | .0368 | .0143 | .038 | .0588 |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Random-effects (RE) estimates.
* p < 0.10, ** p < 0.05, *** p < 0.01

**Table A8.3 - Treated vs. Non-Treated by quartiles of loan cycles**

| | Savings balance (ln) | | | | |
|---|---|---|---|---|---|
| | Population | 1st Quartile | 2nd Quartile | 3rd Quartile | 4th Quartile |
| Loan Cycles | 2-28 | 2-6 | 7-11 | 12-17 | 18-28 |
| Treated | -0.163 | 0.160 | -0.106 | -0.394 | -0.010 |
| | (0.113) | (0.190) | (0.210) | (0.244) | (0.236) |
| Program | -0.074 | -0.069 | -0.072 | -0.036 | -0.116 |
| | (0.045) | (0.100) | (0.091) | (0.091) | (0.080) |
| Treated*Program | 0.284*** | 0.374*** | 0.100 | 0.048 | 0.474** |
| | (0.079) | (0.133) | (0.148) | (0.181) | (0.213) |
| Constant | 6.387*** | 5.936*** | 6.470*** | 6.519*** | 6.432*** |
| | (0.073) | (0.129) | (0.118) | (0.150) | (0.140) |
| No. of observations | 12,360 | 3,640 | 2,880 | 2,760 | 3,080 |
| No. of clients | 309 | 91 | 72 | 69 | 77 |
| R-squared: within | .018 | .0508 | .0025 | .000764 | .0362 |
| R-squared: between | .000127 | .0294 | .000589 | .026 | .0231 |
| R-squared: overall | .00442 | .0339 | .00113 | .0207 | .0268 |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Random-effects (RE) estimates.
* p < 0.10, ** p < 0.05, *** p < 0.01

**Table A8.4 - Treated vs. Non-Treated by quartiles of initial savings balance**

| | Savings balance (ln) | | | | |
|---|---|---|---|---|---|
| | Population | 1st Quartile | 2nd Quartile | 3rd Quartile | 4th Quartile |
| Initial Savings Bal. | 0-6,213 | 0-354 | 354-644 | 644-1,070 | 1,070-6,213 |
| Treated | -0.163 | 0.019 | -0.168** | -0.213** | 0.008 |
| | (0.113) | (0.201) | (0.080) | (0.095) | (0.109) |
| Program | -0.074 | 0.000 | -0.131* | -0.093 | -0.050 |
| | (0.045) | (0.115) | (0.068) | (0.100) | (0.079) |
| Treated*Program | 0.284*** | 0.085 | 0.293* | 0.621*** | 0.173 |
| | (0.079) | (0.179) | (0.158) | (0.155) | (0.129) |
| Constant | 6.387*** | 5.130*** | 6.231*** | 6.680*** | 7.358*** |
| | (0.073) | (0.142) | (0.045) | (0.052) | (0.083) |
| No. of observations | 12,360 | 3,120 | 3,080 | 3,080 | 3,080 |
| No. of clients | 309 | 78 | 77 | 77 | 77 |
| R-squared: within | .018 | .00205 | .0179 | .0971 | .00991 |
| R-squared: between | .000127 | .00181 | .00116 | .0854 | .0145 |
| R-squared: overall | .00442 | .0019 | .0132 | .094 | .0124 |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Random-effects (RE) estimates.
* p < 0.10, ** p < 0.05, *** p < 0.01

**Table A8.5 - Treated vs. Non-Treated by quartiles of pre-treatment average savings balance**

| | Savings balance (ln) | | | | |
|---|---|---|---|---|---|
| | Population | 1st Quartile | 2nd Quartile | 3rd Quartile | 4th Quartile |
| Av. Savings Balance | 0-5,653 | 0-357 | 357-602 | 602-1,085 | 1,085-5,653 |
| Treated | -0.163 | 0.089 | -0.053 | 0.004 | -0.053 |
| | (0.113) | (0.184) | (0.046) | (0.045) | (0.093) |
| Program | -0.074 | 0.138 | 0.023 | -0.088 | -0.335*** |
| | (0.045) | (0.117) | (0.072) | (0.064) | (0.105) |
| Treated*Program | 0.284*** | 0.328* | 0.081 | 0.256** | 0.373*** |
| | (0.079) | (0.173) | (0.169) | (0.130) | (0.141) |
| Constant | 6.387*** | 5.011*** | 6.130*** | 6.658*** | 7.453*** |
| | (0.073) | (0.131) | (0.030) | (0.022) | (0.066) |
| No. of observations | 12,360 | 3,120 | 3,080 | 3,080 | 3,080 |
| No. of clients | 309 | 78 | 77 | 77 | 77 |
| R-squared: within | .018 | .0672 | .00413 | .0184 | .0472 |
| R-squared: between | .000127 | .0249 | 7.51e-07 | .0497 | .0266 |
| R-squared: overall | .00442 | .0394 | .00235 | .0315 | .0357 |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Random-effects (RE) estimates.
* p < 0.10, ** p < 0.05, *** p < 0.01

## Annex 9 - Robustness analysis

### Table A9.1 - Treated vs. Non-Treated
### Including all clients with data covering at least nine months in the observation period (February-October 2015, fortnights 3-29)

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** |
| | (FE) | (RE) | (RE) | (RE) |
| Treated | 0.000 | -0.165* | -0.266** | 0.136 |
| | (.) | (0.096) | (0.120) | (0.136) |
| Program | -0.041*** | -0.041 | -0.041 | -0.041 |
| | (0.012) | (0.039) | (0.039) | (0.039) |
| Treated*Program | 0.227*** | 0.227*** | 0.227*** | 0.228*** |
| | (0.018) | (0.066) | (0.066) | (0.066) |
| Age (ln) | | | 0.415** | 0.239 |
| | | | (0.187) | (0.172) |
| Poverty index (ln) | | | -0.518 | -0.644** |
| | | | (0.319) | (0.309) |
| Years in business (ln) | | | -0.115 | -0.118 |
| | | | (0.122) | (0.111) |
| Loan cycle (ln) | | | -0.023 | 0.005 |
| | | | (0.083) | (0.075) |
| Loan amount (ln) | | | 0.808*** | 0.864*** |
| | | | (0.075) | (0.072) |
| DF=1 | | | 0.000 | |
| | | | (.) | |
| DF=2 | | | -0.074 | |
| | | | (0.464) | |
| DF=3 | | | 0.947** | |
| | | | (0.399) | |
| DF=4 | | | 1.088*** | |
| | | | (0.409) | |
| DF=5 | | | 0.964** | |
| | | | (0.390) | |
| DF=6 | | | 0.948** | |
| | | | (0.416) | |
| Centre=1 | | | | 0.000 |
| | | | | (.) |
| Centre=2 | | | | -0.893*** |
| | | | | (0.134) |
| Centre=3 | | | | 0.222 |
| | | | | (0.168) |
| Centre=4 | | | | -0.192 |
| | | | | (0.159) |
| Centre=5 | | | | 0.337** |
| | | | | (0.136) |
| Centre=6 | | | | -0.881*** |
| | | | | (0.272) |
| Centre=7 | | | | -0.227 |
| | | | | (0.202) |
| Centre=8 | | | | -1.037*** |
| | | | | (0.386) |
| Centre=9 | | | | -0.141 |
| | | | | (0.124) |
| Centre=10 | | | | 0.000 |
| | | | | (.) |
| Centre=11 | | | | -0.082 |
| | | | | (0.166) |
| Centre=12 | | | | -1.533*** |
| | | | | (0.259) |
| Centre=13 | | | | -0.092 |
| | | | | (0.163) |
| Centre=14 | | | | -0.471*** |
| | | | | (0.128) |
| Constant | 6.234*** | 6.305*** | -2.115** | -0.851 |
| | (0.007) | (0.062) | (1.025) | (0.869) |
| No. of observations | 16,622 | 16,622 | 16,622 | 16,622 |
| No. of clients | 423 | 423 | 423 | 423 |
| R-squared: within | .013 | .013 | .013 | .013 |
| R-squared: between | .0000922 | .000012 | .375 | .479 |
| R-squared: overall | .000818 | .00324 | .294 | .371 |
| Hausman test chi-squared | .186 | | | |
| Hausman test p-value for the chi-squared | .911 | | | |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Column (1) reports fixed-effects (FE) estimates, whereas columns (2)-(4) report random-effects (RE) estimates. * p < 0.10, ** p < 0.05, *** p < 0.01

**Table A9.2 - Treated vs. Non-Treated**
**Including all clients with data covering at least four fortnights in the observation period**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** |
| | (FE) | (RE) | (RE) | (RE) |
| Treated | 0.000 | -0.254*** | -0.228** | 0.224 |
| | (.) | (0.083) | (0.096) | (0.136) |
| Program | -0.013 | -0.014 | -0.014 | -0.013 |
| | (0.012) | (0.037) | (0.037) | (0.037) |
| Treated*Program | 0.217*** | 0.219*** | 0.219*** | 0.217*** |
| | (0.017) | (0.062) | (0.062) | (0.062) |
| Age (ln) | | | 0.453*** | 0.317** |
| | | | (0.144) | (0.140) |
| Poverty index (ln) | | | -0.545** | -0.548** |
| | | | (0.274) | (0.260) |
| Years in business (ln) | | | 0.079 | 0.037 |
| | | | (0.079) | (0.077) |
| Loan cycle (ln) | | | -0.088 | -0.062 |
| | | | (0.062) | (0.061) |
| Loan amount (ln) | | | 0.732*** | 0.826*** |
| | | | (0.078) | (0.075) |
| DF=1 | | | 0.000 | |
| | | | (.) | |
| DF=2 | | | -0.466 | |
| | | | (0.307) | |
| DF=3 | | | 0.612** | |
| | | | (0.241) | |
| DF=4 | | | 0.857*** | |
| | | | (0.257) | |
| DF=5 | | | 0.729*** | |
| | | | (0.236) | |
| DF=6 | | | 0.458* | |
| | | | (0.258) | |
| Centre=1 | | | | 0.000 |
| | | | | (.) |
| Centre=2 | | | | -0.972*** |
| | | | | (0.136) |
| Centre=3 | | | | 0.152 |
| | | | | (0.148) |
| Centre=4 | | | | -0.311*** |
| | | | | (0.118) |
| Centre=5 | | | | 0.478*** |
| | | | | (0.133) |
| Centre=6 | | | | -0.920*** |
| | | | | (0.183) |
| Centre=7 | | | | -0.599*** |
| | | | | (0.225) |
| Centre=8 | | | | -0.760*** |
| | | | | (0.237) |
| Centre=9 | | | | -0.121 |
| | | | | (0.115) |
| Centre=10 | | | | 0.000 |
| | | | | (.) |
| Centre=11 | | | | -0.440** |
| | | | | (0.204) |
| Centre=12 | | | | -1.714*** |
| | | | | (0.208) |
| Centre=13 | | | | -0.164 |
| | | | | (0.162) |
| Centre=14 | | | | -0.488*** |
| | | | | (0.131) |
| Constant | 6.092*** | 6.093*** | -1.528* | -0.935 |
| | (0.007) | (0.057) | (0.928) | (0.783) |
| No. of observations | 20,581 | 20,581 | 20,581 | 20,581 |
| No. of clients | 654 | 654 | 654 | 654 |
| R-squared: within | .014 | .014 | .014 | .014 |
| R-squared: between | .000389 | .00636 | .333 | .422 |
| R-squared: overall | .000214 | .00416 | .262 | .344 |
| Hausman test chi-squared | 3.71 | | | |
| Hausman test p-value for the chi-squared | .156 | | | |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Column (1) reports fixed-effects (FE) estimates, whereas columns (2)-(4) report random-effects (RE) estimates. * p < 0.10, ** p < 0.05, *** p < 0.01

**Table A9.3 - Treated vs. Non-Treated**
**Raw savings balance data in the observation period**

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** | **Savings balance (ln)** |
| | (FE) | (RE) | (RE) | (RE) |
| Treated | 0.000 | -0.207 | -0.315 | 0.529*** |
| | (.) | (0.138) | (0.211) | (0.165) |
| Program | -0.015 | -0.039 | -0.060 | -0.064 |
| | (0.094) | (0.066) | (0.069) | (0.069) |
| Treated*Program | 0.290** | 0.303** | 0.300** | 0.315** |
| | (0.141) | (0.136) | (0.137) | (0.138) |
| Age (ln) | | | 0.329 | 0.082 |
| | | | (0.293) | (0.280) |
| Poverty index (ln) | | | -0.770 | -0.413 |
| | | | (0.574) | (0.525) |
| Years in business (ln) | | | -0.092 | -0.118 |
| | | | (0.153) | (0.149) |
| Loan cycle (ln) | | | -0.222 | -0.125 |
| | | | (0.136) | (0.131) |
| Loan amount (ln) | | | 0.831*** | 1.029*** |
| | | | (0.104) | (0.113) |
| DF=1 | | | 0.000 | |
| | | | (.) | |
| DF=2 | | | -0.441 | |
| | | | (0.824) | |
| DF=3 | | | 1.351* | |
| | | | (0.752) | |
| DF=4 | | | 1.519** | |
| | | | (0.771) | |
| DF=5 | | | 1.340* | |
| | | | (0.746) | |
| DF=6 | | | 1.217 | |
| | | | (0.774) | |
| Centre=1 | | | | 0.000 |
| | | | | (.) |
| Centre=2 | | | | -1.427*** |
| | | | | (0.176) |
| Centre=3 | | | | -0.158 |
| | | | | (0.185) |
| Centre=4 | | | | -0.349 |
| | | | | (0.264) |
| Centre=5 | | | | 0.492** |
| | | | | (0.205) |
| Centre=6 | | | | -1.336** |
| | | | | (0.550) |
| Centre=7 | | | | -0.944*** |
| | | | | (0.249) |
| Centre=8 | | | | -1.505** |
| | | | | (0.715) |
| Centre=9 | | | | -0.420** |
| | | | | (0.163) |
| Centre=10 | | | | 0.000 |
| | | | | (.) |
| Centre=11 | | | | -0.782*** |
| | | | | (0.260) |
| Centre=12 | | | | -2.806*** |
| | | | | (0.391) |
| Centre=13 | | | | -0.201 |
| | | | | (0.226) |
| Centre=14 | | | | -1.179*** |
| | | | | (0.158) |
| Constant | 6.151*** | 6.186*** | -1.744 | -1.214 |
| | (0.055) | (0.095) | (1.610) | (1.463) |
| No. of observations | 936 | 936 | 936 | 936 |
| No. of clients | 302 | 302 | 302 | 302 |
| R-squared: within | .0106 | .0104 | .0101 | .0101 |
| R-squared: between | .000483 | .000589 | .318 | .424 |
| R-squared: overall | 3.85e-06 | .00275 | .217 | .289 |
| Hausman test chi-squared | 1.98 | | | |
| Hausman test p-value for the chi-squared | .371 | | | |

Standard errors clustered at individual levels in parentheses. All variables are in log form. Column (1) reports fixed-effects (FE) estimates, whereas columns (2)-(4) report random-effects (RE) estimates. * p < 0.10, ** p < 0.05, *** p < 0.01

## Annex 10 - Control Group Survey

**GOAL CARD PROJECT SURVEY – Control Group**

Centre Code: _____ ID Nr: _____ Client Name: _____

Introduction: Good day, I am a volunteer who is helping SEF doing research. In particular, I would like to ask you some questions to help SEF understand better your savings behavior. The information I am collecting will be treated with confidentiality and by no means will be used against you by SEF. Your input is very valuable and you can feel free to talk openly.

1. How important is saving for you?

☐ Not important ☐ Not so important ☐ Important ☐ Very important

2. Why?

_____

3. Do you have any savings besides the amount SEF encourages you to save on the Group Savings Account?

☐ Yes (Continue with question 4) ☐ No (Skip to question 5)

4. How do you keep these savings? (can answer more than one)

☐ Cash ☐ Bank Account ☐ Post Office Account ☐ Other, specify_____

5. Are you saving for anything in particular?

☐ Yes (Continue with question 6) ☐ No (Skip to question 10)

6. What are you saving for? (can answer more than one)

☐ Furniture ☐ Building materials ☐ Children's future ☐ Business
☐ Debt (clothing account) ☐ Other home needs (water tanks, fence, tombstone)
☐ Dowry/Ceremonies ☐ Other, specify_____

7. Do you have a savings plan (i.e. do you have set a minimum amount that you aim to save periodically and a final amount you aim to reach by a certain date)?

☐ Yes (Continue with question 8) ☐ No (Skip to question 9)

8. Do you keep up with your plan?

☐ Yes ☐ No

9. What has been the major obstacle to keeping up with your savings goal?

☐ Unexpected expense – Illness ☐ Unexpected Expense – Funeral
☐ Wedding-Lobola in the family ☐ Business slow down ☐ Group members' arrears
☐ No Motivation ☐ Other, specify_____

10. Do you have any emergency savings for unexpected expenses?

☐ Yes ☐ No

11. If you have unexpected expenses and your savings are not enough, what do you do?

☐ I ask for help to my family ☐ I ask for help to my friends ☐ I ask for a new loan to SEF
☐ I ask for a loan to someone else ☐ I sell some of my assets

12. How would you feel if SEF asked you to set a goal towards which to save regularly, in addition to the 2% SEF encourages you to save?

☐ Pleased ☐ Neutral ☐ Constrained ☐ Do not need it

13. Why?

_____

_____

14. If you know someone selected for the Goal card project, do you think that Goal Card helped them?

☐ Yes ☐ No ☐ I do not know anyone participating to this project

15. If not, why?

_____

_____

16. What do you think SEF could do more or better to encourage you to save regularly?

_____

_____

## Annex 11 - Treatment Group Survey

**GOAL CARD PROJECT SURVEY – Treatment Group**

Centre Code: _____ ID Nr: _____ Client Name: _____

Introduction: Good day, I am a volunteer who is helping SEF doing research. In particular, I would like to ask you some questions to help SEF understand better your savings behavior. The information I am collecting will be treated with confidentiality and by no means will be used against you by SEF. Your input is very valuable and you can feel free to talk openly.

1. How important is saving for you?

☐ Not important ☐ Not so important ☐ Important ☐ Very important

2. Why?

---

3. Do you have any savings besides the amount SEF encourages you to save on the Group Savings Account?

☐ Yes (Continue with question 4) ☐ No (Skip to question 5)

4. How do you keep these savings? (can answer more than one)

☐ Cash ☐ Bank Account ☐ Post Office Account ☐ Other, specify_____

5. Were you saving for anything in particular before SEF introduced the Goal Card?

☐ Yes (Continue with question 6) ☐ No (Skip to question 7)

6. What was your savings goal? (can answer more than one)

☐ Furniture ☐ Building materials ☐ Children's future ☐ Business
☐ Debt (clothing account) ☐ Other home needs (water tanks, fence, tombstone)
☐ Dowry/Ceremonies ☐ Other, specify_____

7. What are you saving for now as part of the Goal Card? (can answer more than one)

☐ Furniture ☐ Building materials ☐ Children's future ☐ Business
☐ Debt (clothing account) ☐ Other home needs (water tanks, fence, tombstone)
☐ Dowry/Ceremonies ☐ Other, specify_____

8. How did you choose this goal? With the help of:

☐ Family ☐ Myself ☐ DF ☐ Centre Meeting ☐ Others, please specify_____

9. How important is it for you and your family achieving the goal you set in the Goal Card?

☐ Not important ☐ Not so important ☐ Important ☐ Very important

10. Have you been able to keep up with the fortnightly savings you set in the Goal Card?

☐ Always ☐ Often ☐ Not so often ☐ Never

11. What has been the major obstacle to keeping up with your savings goal?

☐ Unexpected expense – Illness ☐ Unexpected Expense – Funeral
☐ Wedding-Lobola in the family ☐ Business slow down ☐ Group members' arrears
☐ No Motivation ☐ Other, specify_____

12. What has been your key strategy to achieve your goal?

☐ Save more ☐ Cut expenses ☐ Cut debt ☐ Work more

13. Do you have any emergency savings for unexpected expenses? (E.g.: illness in the family, funeral)

☐ Yes ☐ No

14. If you have unexpected expenses and your savings are not enough, what do you do?

☐ I ask for help to my family ☐ I ask for help to my friends ☐ I ask for a new loan to SEF
☐ I ask for a loan to someone else ☐ I sell some of my assets

15. Why do you think SEF introduced the Goal Card? (tick all that apply)

☐ I did not understand ☐ To remind us the importance of savings
☐ To help us realize our potential ☐ Other, specify_____

16. Do you think your DF communicated to you about the goal card properly and constantly over the time to understand the Goal Card purpose?

☐ Yes ☐ No

17. What has helped you the most stay focused on your saving goal?

☐ Group members ☐ Centre members ☐ DF
☐ Family members ☐ Myself ☐ No one, I was not focused

18. Did someone periodically verify that you had saved the minimum fortnightly amount agreed in your Goal Card?

☐ Yes-Group Members ☐ Yes-DF ☐ Yes-Centre Leadership ☐ No, no one

19. Did your DF meet with you to verify progress and milestone achievement at milestone date?

☐ Yes ☐ No

20. How helpful are you finding the Goal Card? (are you saving more than before?)

☐ Not helpful ☐ Not so helpful ☐ Helpful ☐ Very Helpful

21. Why?

_____

22. Do you wish you had not been selected to participate to the Goal Card?

☐ Yes ☐ No

23. What do you think SEF could do more or better to encourage you to save regularly?

_____

24. Would you rather save for a short, medium or long term goal?

☐ Short term (less than 6 months)
☐ Medium term (between 6 months and 2 years)
☐ Long term (more than 2 years)