NBER WORKING PAPER SERIES

GIVE ME A PASS: FLEXIBLE CREDIT FOR ENTREPRENEURS IN COLOMBIA

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Working Paper 30634
http://www.nber.org/papers/w30634

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
November 2022, Revised May 2025

Thanks to Diego Eslava, Javier Madrazo, David McDevitt, Nathan Haddon, Pablo Olmos, Anna Segura, Ana Serrano, Guillermo Tovar and Jesús Villero for excellent research management and assistance. Thanks to seminar participants at the Asian Development Bank, Atteneo de Manila University, Carnegie Mellon University, Columbia University, DIW Finance and Development Workshop, DIW Productivity and Development Workshop, Haverford College, University of Göttingen, University of Pittsburgh and UW-Milwaukee for helpful comments. We thank Kiva and Google.org for funding. We maintained intellectual freedom to report and interpret the results. We thank the management and staff of Fundación Mario Santo Domingo for their exceptional cooperation. Registered in the American Economic Association Registry for randomized controlled trials (AEARCTR-0001123). Institutional Review Board approval for human subjects research from Innovations for Poverty Action #14181. The views expressed are those of the authors and should not be attributed to the World Bank, its executive directors, the countries they represent, or the National Bureau of Economic Research.

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NBER Working Paper No. 30634
November 2022, Revised May 2025
JEL No. G21, O21

ABSTRACT

Although microcredit has reached millions, recent randomized evaluations find limited average business impacts. Contract rigidity, specifically the fixed and frequent installments, may limit productive risk-taking and thus diminish impact on average profits but risk triggering moral hazard. We test this with a Colombian lender that experimentally compared, for a sample of new borrowers, rigid lending to a loan product that included three "passes" to push off a monthly payment to the future. The flexible loan did lead to some shifts in investment behavior but no average impact on revenue or profits level or variance, and did lead to higher default.

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A randomized controlled trials registry entry is available at www.socialscienceregistry.org/trials/1123

1. Introduction

Most small firms in developing countries have large month-to-month fluctuations in their income stream and thus cash flow. Anticipated cash shortfalls due to seasonality, as well as unanticipated positive and negative shocks such as business opportunities, health shocks, etc., contribute to this volatility.

In credit markets with full information, lenders would "match cash flows", i.e., provide credit terms that tailor disbursals and repayments to a firm's cash fluctuations. A working capital line of credit is a simple example. More complex structures in this spirit are offered by venture capitalists or revenue-sharing contracts with repayments linked to firm performance (Gompers and Lerner 2001). In credit markets with information asymmetries, such as those in developing countries, lenders still try to match repayment to cash-flows to account for seasonality or observable shocks. For example, most agricultural loans are offered with a single installment due at harvest as farmers typically receive income only after the crops are sold. Idiosyncratic, unanticipated shocks, however, are harder to verify; perhaps because entrepreneurs could misreport actual revenues, full revenue-sharing contracts appear nonexistent (de Mel, McKenzie, and Woodruff 2019; Cordaro et al. 2022).

Many microentrepreneurs seeking formal credit in developing countries rely on microcredit loans with fixed, frequent repayments that start immediately after the loan is disbursed (Armendariz de Aghion and Morduch 2010; Labie, Laureti, and Szafarz 2017). Borrowers may adjust to these terms by holding cash back or by passing on high (risk-adjusted) return investments (Karlan and Mullainathan 2007; Field et al. 2013; Fischer 2013). And, perhaps due to this rigidity, microcredit loans have had limited impacts on the profitability and growth of firms (Banerjee, Karlan, and Zinman 2015; Crépon et al. 2015) although impacts at scale for the full industry (versus marginal shifts by one lender) have been shown to generate larger impacts (Breza and Kinnan 2021).

Recent attempts to introduce repayment flexibility to existing clients have shown that flexibility can improve business outcomes without deteriorating repayment rates (Battaglia, Gulesci, and Madestam 2023; Barboni and Agarwal 2023).[1] This may not be true for first-time borrowers: providing flexibility could backfire for the lender if some initial fixed and frequent repayment loans are needed to screen, to teach discipline in repayment or to maintain repayment norms (Czura, John, and Spantig 2024). On the other hand, flexibility could attract new, (in expectation) profitable clients uninterested in the standard microcredit loan due to its rigidity. Indeed, those rejecting rigidity may reveal a high personal cost of default (e.g., due to personal ethics or reputation) and such clients are quite desirable for the bank. If the share of such entrepreneurs is large, flexibility should be offered to new borrowers. We thus seek to assess the validity of these theories on new borrowers by evaluating experimentally the impact of repayment flexibility on selection, client welfare, and loan performance.

We collaborate with a microlender in urban Colombia to introduce repayment flexibility in a two-stage offer-contract design to new clients. The flexible credit feature allows borrowers to use a "pass" at any time during the loan, allowing them to only pay the interest amount of an installment, postponing payment of the principal amount, up to three times on a 12-month loan. The experimental design

[1] Fiorin, Hall, and Kanz (2023) finds that a national debt moratorium improves repayment for delinquent borrowers in India when the moratorium is framed as granted by their lender (vs due to government regulation).

employs three treatment arms: (1) Flex→Flex is offered and disbursed the flexible credit, (2) Standard→Flex is offered the standard credit but then surprised with the flexible credit at disbursement, and (3) Standard→Standard is offered and disbursed the standard rigid credit. This allows us to test both for selection effects as well as contract effects on choices and outcomes after borrowing.

We report three main findings. First, there are no selection differences in take-up rates, characteristics, or outcomes of the Flex→Flex group compared to the Standard→Flex group. The lack of selection effects suggests that only a small share of profitable entrepreneurs would reject the standard contract but accept the flexible contract. Second, flexibility increases default --- and the effect is driven by borrowers who used the flexibility to extend loan maturity and had already missed payments at the time of default. Comparable borrowers in the control group had better repayment performance without resorting to more expensive sources (i.e. informal loans). Third, flexibility leads to more self-reported client satisfaction but not to higher retention of successful borrowers.

These results contribute to the small but growing literature investigating flexibility in microcredit contracts (see Appendix Table 1 for a summary of the features of five related studies; Aragón et al. 2020; Barboni and Agarwal 2023; Battaglia et al. 2023; Field et al. 2013; Shonchoy and Kurosaki 2014). Barboni and Agarwal (2023) uses an experiment in urban India to show that a three-month block repayment holiday, communicated in advance and available upon successful repayment of three monthly installments of a 24 months loan, attracts financially disciplined clients and leads to higher sales and repayment rates. Since the intended use of the repayment delay had to be communicated to the microcredit institution by the borrower one month in advance, the product flexibility only targets anticipated income fluctuations or profit opportunities. Battaglia et al. (2023) studies a flexible loan product that is closest to ours. Borrowers in rural Bangladesh who were deemed eligible by loan officers based on their repayment histories were given two passes (three in our setting) on a 12-month loan that could be used at any point during the loan tenure, catering to both unexpected shocks and predicted downturns. Flexibility led to improvements in business and socioeconomic status and *lower* default rates, especially for borrowers operating smaller businesses.

An important difference between these papers and our study is the experience of study participants. While the above papers study current borrowers and borrowers that had successfully repaid a prior loan, our study only includes new clients to our partner institution, allowing us to better understand both selection effects and the impact of flexibility in a population that has not yet demonstrated financial discipline.[2]

Our paper is also related to Field et al. (2013) which finds that an initial two-month grace period leads to higher-return (and higher-risk) investments among a mix of old and new borrowers in urban India. While the grace period leads to higher long-run profits for the borrower, it is not profitable for the lender, which suffers the downside of the increased risk without the upside benefit of increased returns. The observed increases of both profits and default are concentrated on existing clients compared to

[2] All borrowers in our study were new clients for our partner lender. Unfortunately, we lack loan history data to distinguish between borrowers that had never previously borrowed (from any lender) and borrowers that had not previously borrowed from our partner institution but had borrowers from another lender in the past.

new clients who make up about 25% of the sample (N=210).[3] While their result contrasts the increase in default in our sample of new clients, the grace period that Field et al. (2013) studies is quite different from the flexibility we study. In Field et al. (2013), borrowers in the treatment group did not *choose* to have the grace period and maintained the fixed repayment schedule of the control group. As a result, choice over delay of payments could not affect borrower discipline and repayment norms. In contrast, borrowers in our study had a choice of delaying repayment of up to three monthly installments.

Finally, by showing no evidence of selection effects from introducing flexibility to new clients, we also contribute to the literature assessing the extent of selection in low-income country credit markets (see e.g., Karlan and Zinman 2009; Ahlin et al. 2020; Beaman et al. 2023; Gertler, Green, and Wolfram 2021; Jack et al. 2023).

2. Credit Product and Experimental Design

Setting and the Standard Credit Product

We partnered with the microcredit unit of Fundación Mario Santo Domingo ("FMSD"), a small not-for-profit lender. FMSD operates in northern Colombia and had around 6,000 clients. The experiment took place in the urban branches of Barranquilla and Cartagena. FMSD gave individual liability loans to both male and female entrepreneurs for either working capital or the purchase of business fixed assets. Eligible borrowers had to own an existing business for at least six months, had to be in good standing with the credit bureau, and could have at most one other loan with another institution. Loans given by FMSD required fixed monthly installments and had no early repayment penalties. The median and modal loan length was 12 months but varied from six to 24 months. The nominal interest rate ranged from 36% p.a. to 42% (see Appendix Section A: Details of Experiment for details) plus various fees amounting to 14% of the principal for a typical loan (see Appendix Table 2 for details). Borrowers with a past due balance at the end of the month lost access to a lower interest rate reserved for successful repeat borrowers and were reported to the credit bureau. Borrowers with two or more months with a past due balance were denied future loans.

The Flexible Credit Product

In collaboration with the lender, we developed a new credit product with repayment flexibility. Specifically, the flexible credit introduced "passes" that allowed borrowers to pay only the interest and fees of the monthly installment, postponing the principal portion without penalties for missed payments. The delayed principal amount accrued interest at the same rate as the original loan and was subsequently due either at the end of the loan (thus extending the term) or earlier, as the borrower chose.[4]

[3] Calculations based on the publicly available replication data combined with information about new/old borrower status obtained from the authors.

[4] As a result of the fixed-installment mortgage-style repayment schedule, the principal proportion increases over time and thus passes used earlier generate smaller delayed principal payments.

Borrowers were allocated one pass for every four months of the initial loan duration. A borrower with the typical 12-month loan, for example, would be given three passes that could be used at any point in the loan cycle, including sequentially. To use a pass, borrowers had to contact their credit officer via phone or in person by visiting the branch before the payment was due that month.

Each time a borrower used a pass, they chose between two different principal repayment schedules. If the client used an "extension" pass, the loan maturity was extended by one month without changing the amount of the remaining monthly installments. Alternatively, under the "no-extension" pass, clients paid the postponed principal (plus accruing interest) in one or more payments within the original loan term. Appendix Table 2 shows example repayment schedules for extension and no-extension type passes. Given that the installment amount was fixed during the repayment schedule, the share of installment due to the principal payment increased over time and so did the amount that was skipped with the pass. With the principle being the largest part of the payment, however, the minimum amount that can be skipped is always substantial – in the example loan that has the modal duration of 12 months, the share of the payment that would be postponed is 60% in the first month and increases from there.

Except for the repayment flexibility, the new credit product was identical to the standard credit offered by the lender.

Experimental Design

Figure 1 provides an overview of the two-stage experimental design. In the first stage, potential first-time clients were offered either a standard loan or a flexible loan. All offers were subject to the lender's standard loan approval process. In the second stage, conditional on completing the application and subsequent approval, a share of standard loan clients were switched to a flexible loan by surprise (Karlan and Zinman 2009). As a result, our design has three experimental groups: "Flex→Flex", "Standard→Flex", and "Standard→Standard".

We chose this two-stage design to disentangle selection effects from contract effects. To study selection effects, we analyze outcomes for borrowers that end up with a flexible contract and compare "Standard→Flex" clients --who received the standard loan offer but were later switched to a flexible loan---with "Flex→Flex" clients who were offered the flexible loan from the beginning. To study contract effects, we analyze outcomes for borrowers offered the standard loan and compare credit outcomes of "Standard→Flex" clients with "Standard→Standard" clients.

Sample Recruitment and Randomization of First Stage (Initial Offers)

We worked with FMSD to integrate the randomization of initial flexible offers in their recruitment of first-time clients. In total, 8,610 potential clients talked to an FMSD staff about opportunities for loans for small business, passed basic filter questions and agreed to listen to the randomized initial offers. Panel A of Appendix Table 3 reports the share of potential clients recruited through the different channels used by the lender. About 50% of the initial offers to apply were made by "door-to-door"

promoters.[5] In total ---across promoters, credit officers and front desk staff--- about 30% of potential clients were recruited during public "financial" events organized by the local mayor's office or directly by FMSD.[6] The remaining pool of potential clients, about 20%, were called up by credit officers directly or visited the branch.

Regardless of the mode of recruitment, the randomized marketing followed the same protocols (see Appendix Section B for an English translation of the scripts used in the marketing process). Immediately after passing a short set of basic eligibility filters ---including tenure of business ownership and good standing with the national credit bureau--- potential clients were provided with information about either the standard loan or the flexible loan according to their randomized assignment. In case the potential client was interested in proceeding with an application (or at least considering it), FMSD staff would take down their contact information for follow-up visit by a credit officer to assess eligibility. All prospective clients also received a leaflet with information about the loan (see Appendix B for the flexible product flyer, modeled after the standard product flyer). Loan applications were processed by credit officers and reviewed by the credit committee. Clients with approved loans received additional explanations from a dedicated staff member when the loan was disbursed either during the branch visit or over the phone.

Recruitment into the study took place continuously over 18 months. Overall, 22.4% of potential clients were assigned to a flexible offer (see Appendix A for further details). Panel A of Appendix Table 3 confirms that the randomized assignment of offer types was balanced overall with respect to the recruitment process and branch location (the p-value of a joint test of equality of means is 0.20.

Randomization of Second Stage (Switch to Flexible Loans)

Approved standard loans were randomly switched to flexible loans at disbursement, with a target probability of 50%, based on the observed distribution of the last three digits of the national identification document using the loan data set of our partner microcredit institution. In total, 1,893 standard loan offers were accepted and 971 (51%) of them were converted to flexible contracts as part of the second stage randomization.

Clients learned about the switch when their credit officer called them about the approval of their application and gave a short explanation of the new flexible loan. All clients in the Std→Flex group accepted the switch to the flexible loan. We test for balance in the second stage randomization by looking at the sample of new clients that initially received a standard offer. Using a combination of data

[5] We developed and subsidized this new recruitment strategy to increase new-client growth. A team of promoters accompanied credit officers, helped approach potential clients and elicited basic interest for the specific product offered.

[6] Sixty-two percent of the recruits from financial events came from those organized by the mayor's office, which partnered with private partners to visit different neighborhoods to advertise the availability of existing services such health and education programs, conditional transfers, and microfinance. At an event, prospective borrowers received a "financial inclusion" briefing that included eligibility criteria to apply for a loan. Participants who were interested in loans could approach the staff of the lender. The product differences were not made salient at the event but during the interaction of potential clients with staff.

from the recruitment process, data collected by credit officers during the application process as well as the bank's administrative data, we compare those who received a standard loan with those who were switched to a flexible loan. Appendix Table 4 shows means and standard deviations for the two groups and p-values of the tests of equal means. Out of the 18 variables including loan characteristics (Panel A), socioeconomic characteristics of clients (Panel B) and business characteristics (Panel C), only one difference is significant at the 10% level. The p-value of a joint test of differences across all variables is 0.87.

3. Data

We draw on several data sources. First, we use self-reported data on household and business characteristics collected by credit officers at the time of the loan application. Second, we use data on loan characteristics and client repayment histories for all study loans. The repayment data spans 49 months from when the first loans were disbursed until 30 months after the last set of loans were disbursed. It covers 100% of clients from loan disbursement until three months past loan maturity (and 99.3% until 12 months past maturity), with loan maturity accounting for extensions due to passes.

Third, with the help of the researchers, the lender conducted client satisfaction phone surveys on a subsample of study clients. The lender's staff called both standard and flexible loan clients to assess client attitudes towards their loan product, their level of knowledge about the product's features, and the reasons for pass use among clients who had used them. Respondents were chosen randomly from the pool of clients every month over 18 months, stratifying each month by credit officer and loan type.[7] In total, 575 phone surveys were completed for 457 different clients, representing 18% of all clients in the study sample. Phone surveys were conducted on average six months after loan disbursement.

Lastly, we conducted an in-person follow-up survey. This survey was brief (the median survey duration was 34 minutes) and took place at clients' businesses or homes around ten months (sd=2 months) after the loan disbursement. Since loans were disbursed over time, the survey was conducted on a rolling basis to ensure comparable duration relative to the initial loan disbursement. Respondents were asked about loan repayment behavior and a set of business and household outcomes. The response rate was 69%.[8]

The non-trivial rate of attrition raises two potential concerns. First, differential attrition by experimental status could undermine the internal validity of the results. To address this concern, we correlate whether clients answered the survey with information from survey data available at loan disbursement and from repayment data (Appendix Table 5). We both fail to reject equal response rates across experimental arms (69% response rate for both treatment and control groups) and a lack of differences

[7] The target sampling rate was initially set to 20% of clients for the first three months of the experiment and later lowered to 5%, subject to a minimum of two calls in each offer-loan type combination in a given month.

[8] Locating clients in the urban setting of this study was difficult. Clients frequently move the location of the business or place of residence and immediate neighbors are not always willing to provide information about clients' whereabouts. A team of enumerators continually rotated through the different neighborhoods with a list of target respondents and attempted phone contacts to schedule interviews.

in the characteristics of who is reached (p-value of 0.55 for the specification pooling Flex->Flex and Standard->Flex and 0.40 and 0.28, respectively, for a specification that separately tests compositional selection for each treatment arms).

A second concern is external validity --- if the survey sample differs from the administrative data sample, treatment effects might not be comparable across data sources. Looking at the predictors of survey response, we can see that clients from Barranquilla, older and poorer clients, those with larger businesses, and with smaller loans were more likely to be interviewed. We also see that clients with lower eventual default were more likely to be interviewed. The coefficients from the attrition regression imply that, all else equal, having any principal in default 12 months post initial maturity (true for 27% among standard contract clients) decreases survey response by 9 percentage points. Thus, while the surveyed sample differs from the full sample, the magnitudes of the differences are moderate and limit the impact of any mismatch in samples.

Appendix Figure 1 summarizes the timeline of the experiment and related data collection.

4. Empirical Strategy & Results

We first examine take-up in the sample of 8,610 *potential* clients and selection into take-up with the resulting 2,475 takers. Using administrative data and the first-stage randomization of loan types marketed and initially offered, we regress take-up and recruitment process characteristics as well as loan and client characteristics on the first-stage offer (either a standard or flexible offer). We cluster standard errors at the level of assignment (initially related to the recruitment day and time and the potential client's initial) and include fixed effects for MFI staff and calendar time to account for the randomization stratification in the later stages of the experiment. Given the different rates of treatment assignment for the earlier and later phases of the experiment (see Figure 1), we estimate separate treatment effects but use the sample-weighted average effect when we test for treatment effects. See Appendix A for details on the specification.

Next, we use the sample of takers, the variation in the type of loan contract from the second-stage randomization, and loan performance data to test for selection on both observable and unobservable characteristics and to estimate the impact of flexibility on repayment behavior. To test for selection effects based on unobservable characteristics, we compare flexible credit clients offered flexibility in the first stage to those who switched only after take-up, applying a regression specification analogous to that of the first-stage regression from above.

To test for contract effects, we regress repayment outcomes on the type of contract (either standard or flexible) among takers of the standard offer. Standard errors are clustered at the level of randomization, in this case, the last three digits of the national ID. In addition, since we find no evidence for selection on observable or unobservable characteristics, we also show repayment results for a combined contract effect analysis that pools initial offers and compares standard and flexible loans irrespectively of the initial offer and focus on this pooled analysis for the analysis of the 10-month follow-up survey. For the combined analysis, we use the regression specification of the first stage but use two-way clustering to

allow standard errors to be clustered at level of the assignment in both first and second stages of randomization.

Take-up of Loans

Figure 1 reports that the 6,685 standard loan offers led to 1,893 disbursed loans (28%) while the 1,925 flexible loan offers led to 582 disbursements (30%). Appendix Table 3 Panel B shows that the difference in disbursement rates by type of credit offers is not statistically significant (p-value is 0.26). Among applicants, a negative credit assessment was the most common reason for a loan not being disbursed. Overall, the application outcome and eligibility process were similar for both groups (p-value of joint test is 0.40).

Appendix Table 3 Panel C shows the take-up rates by recruitment modality, comparing those offered standard versus flexible loans. Door-to-door promotions yielded 24% and 23% take-up rates for flexible versus standard loans, respectively. Financial events yielded similar results of 23% and 21%, respectively. And in-branch marketing yielded a 57% take-up rate for both flexible and standard loans. Thus, in all three recruitment modalities, the take-up rates were quite similar for standard and flexible offers.

Pass Use

Examining the overall use of flexible passes, we find that about a third of flexible-loan clients used a pass at some point (Figure 1 and Appendix Table 6).[9] In comparison, in Barboni and Agrawal (2023), 31% of approved standard loan applicants in treatment clusters opted for a flexible contract over a standard loan when offered the choice, with 56% of flexible contract takers exercising their flexibility option. In Battaglia, Gulesci, and Madestam (2023), among flexible loan clients, 57% of small-loan borrowers and 69% of larger-loan borrowers used at least one of their two vouchers to postpone payments.

While most clients who used a pass at all used only one pass, 43% of such clients used a pass more than once. Flexible loan clients used 0.59 passes on average, roughly evenly split across extension-type passes that added to the maturity of the loan and no-extension type passes where the skipped principal had to be paid within the original loan duration. The limited pass use is consistent with only 7% of flexible credit clients using the maximum allowed number of passes.

Pass use is broadly similar between clients initially offered the standard loan who were later switched to a flexible loan and clients initially offered the flexible loan (Appendix Table 6 Columns 5 and 6). While we see slightly more pass use among those offered a flexible loan from the beginning (38% vs 34%, p-value 0.04), the differences are quantitatively small. Since we also observe a lack of differences in repayment behavior (see below), we pool across initial offers in the following analysis of pass use.

[9] We also find that 2% of those without a flexible loan report using a pass. We do not know the circumstances that led to this compliance gap, i.e., whether it was strategic by credit officers or mere administrative error. Regardless, all analysis employs intent-to-treat specifications that adhere to the random assignment.

Appendix Figure 2 shows pass use over time. Pass use is lowest on average in the very first months of the loan's duration, increasing until about a quarter of the loan's duration when it reaches its highest point. While anecdotal evidence suggests that some loan officers may have advised clients not to use passes early on, perhaps because of the lower skipped amount or due to portfolio risk concerns, pass use still peaks at the first quarter of the loan duration.[10] The proportion of extension passes increases over time as clients have less remaining time to repay the skipped balance within the original loan duration. The limited use of passes at the start of the loan is not consistent with the idea that flexible credit clients want to use the product to make larger initial investments. Instead, clients might be reacting to business opportunities as they arise or to unexpected negative shocks to business or household finances.

We report the reasons for pass use given by clients in Appendix Table 7 Panel A from the lender phone survey conducted with a subset of study participants.[11] Forty-one percent report using the pass to make an investment in the business and separate qualitative data indicates that these business investments include making use of an opportunity for discounted bulk buying of inputs, financing inputs for a large customer order and covering lost revenue from temporarily closing the business for renovations. Dealing with shocks is another important reason why clients use passes --- 44% of flexible clients in the phone survey sample who used a pass did so to deal with a personal or family calamity while 19% used a pass to deal with business problems.

Appendix Table 7 Panel B reports client satisfaction from the lender phone survey. To keep answers comparable across treatment arms, questions about satisfaction were asked *before* questions about pass use. While most borrowers feel confident about repaying their loan five months after disbursement (p-value of t-test of equality between flexible and standard loan borrowers is 0.48), borrowers of the flexible loan are 7 percentage points more likely to report higher quality of service from FMSD (p=0.01). Among the reasons given for good service, the product's flexibility stands out as the main difference, with a 15 pp higher rate of being mentioned among flexible credit clients compared to standard loan clients (p-value <0.01).

Selection Effects on Observables

The lack of differences in loan take-up *rates* between the offers of standard and flexible loans suggests we are unlikely to see differential composition of clients across the two groups (if one assumes that the addition of flexibility is a free-disposal feature, and hence does not lower take-up rates for any set of individuals). Table 1 compares loan characteristics (from the administrative data) and client and

[10] We note that portfolio risk concerns raised by some credit officers in our study would be consistent with the lenders policy in Battaglia et al. (2023), in which loan officers screened applicants for flexible loans based on their repayment histories and that of Barboni and Agarwal (2023) in which the "repayment vacations" could not be taken in the first three months of the loan.

[11] The rate of pass use among the sample of clients interviewed in the phone survey is only 18%. This is lower than the final rate from the administrative data since phone surveys were carried out, on average, six months into the loan. When controlling for time elapsed since loan disbursement, the reported rates of pass usage match closely with those of the administrative data.

business characteristics (collected by credit officers at the time of the loan application) between borrowers that accepted flexible and standard loan offers. Column 5 reports the p-values associated with tests of the differences in columns 1 and 3 and shows that two differences out of 18 are statistically significant at 5% significance level: client's age and proportion of clients that are head of the household. It also reports the p-value of tests of joint equality for loan characteristics (p-value=0.72), client characteristics (p-value=0.44), business characteristics (p-value=0.87) and all characteristics combined (p-value=0.73). We conclude there is no evidence of differential selection on observables using a wide range of observable characteristics.

Selection Effects on Unobservables

We next discuss selection on unobservable characteristics for which we compare clients initially offered the standard loan who were later switched to a flexible loan with clients initially offered the flexible loan. First, as discussed above, we see only limited differences in pass use patterns between the groups, implying that regarding pass use, we find no strong evidence for selection. Second, we analyze default rates, to examine if the flexible-lending contract attracted unobservably different applicants with respect to riskiness. Table 2 shows the default rate for those marketed flexible loans (Column 4) and those marketed standard loans but then converted to flexible loans (Column 5). Panel A reports the raw outcomes while Panel B reports the residuals after regressing default outcomes on the 18 observable characteristics from Table 1 for the standard contract group (with first-stage R^2 values ranging from 0.07 to 0.10). Column 6 reports the p-value comparing the different metrics of default. We find no statistically significant difference for any of the measures of default, i.e., no evidence of differential selection on unobservables from being offered a flexible (rather than standard) loan.

This lack of selection refutes the idea that there are many profitable entrepreneurs who reject the standard loan but would accept the flexible loan.[12] This result contrasts, however, with the finding of Barboni and Agarwal (2023) that individuals who accept a flexible loan are more financially sophisticated and have considerably more income volatility.

Why is there no selection in our case? Data from the lender phone survey of clients indicate that lack of information cannot be an explanation. Appendix Table 7 Panel A reports that almost all flexible credit clients (98%) either knew they had a pass or –in case they did not recognize the term "pass"– that they were allowed to pay reduced installments. Unlike Barboni and Agarwal (2023) that required a month-

[12] One could argue that no selection effects would be detected if the sample excluded applicants interested in the flexible loan but not the standard loan, that is, if it only included applicants interested in the standard loan and take-up conditional on initial interest were only determined by borrower eligibility (leaving no room for increased demand for the flexible credit). While part of our sample is recruited from visits that prospective clients made to the branch (19% of initial flexible credit applications were made during branch visits) and from financial events (25% of initial applications), where perhaps prospective borrowers approached the lender only knowing about the standard loan, we still find no selection effects when we focus on the sample recruited during door-to-door promotions for which no loan information was provided before revealing the randomized offer type (see Appendix Table 8; Appendix Tables 9 and 10 show separate results for financial events and branch visits, respectively). In addition, overall take-up conditional on initial interest was only 28% and only about a third of initial applications were rejected because of a negative credit assessment, leaving plenty of room for differential take-up rates due to the offer of flexibility.

long lag between communication and actual use of the pass, our lender's passes could be used immediately and thus borrowers maybe were more subject to temptation or procrastination in repaying the loan. In addition, unlike most other studies that introduce flexibility, our sample consisted exclusively of new clients who were perhaps less financially disciplined or had on average weaker internalized repayment norms (perhaps because they did not have as much experience learning to repay loans, or because the lending process had not yet filtered out borrowers predilected to default).

Default, Business, and Stress-Related Treatment Effects

Next, we examine treatment effects of the flexible contract on repayment behavior, default rates, and loan renewal. Table 2 Columns 1 and 2 report outcomes from the administrative data for borrowers of the standard and flexible contract respectively. Given the lack of evidence for selection, we include results for which we pool observations for flexible contract clients across initial offer types (standard or flexible).

Regardless of the panel used, the flexible contract group has 3 and 2 percentage points higher proportion of the principal in default 3 and 12 months after maturity, respectively. Column 3 of Table 2 reports the p-values from the regression testing for differences between flexible and standard contract groups and shows this increase in default is statistically significant (p-value<0.01). Despite these default results, we see only limited evidence for differences in the share of borrowers who have missed a due payment (i.e., not counting skipped payments from a pass as missed) with a p-values of 0.08 in Panel A and 0.16 in Panel B. We see no effect on the rate of loan renewal. We return below to this pattern of results when exploring the repayment behavior over the course of the loan.

Column 7 reports the difference between borrowers of the standard contract in column 1 and borrowers of the flexible contract in column 5, all initially offered the standard contract. Since we find no selection (column 6, discussed in prior section), column 7 is similar to column 3 as overall differences in outcomes are attributable solely to differences in the contract.

We next examine repayment behavior over the course of the loan to shed additional light on the mechanisms for the results in Table 2. In each graph of Figure 2, we plot the outcome mean among standard borrowers (dashed line), the same mean plus the flexible credit coefficient based on regressions at each point in time (solid line), and the associated pointwise confidence intervals (dotted line). For reference, we also show the rate of pass use over time in a bar chart as in Appendix Figure 2. Again, we use the share of the loan maturity elapsed to account for the variation in loan lengths across the sample and we use the original loan maturity at loan issue to keep flexible and standard contract groups comparable. For additional technical details, see the notes at the bottom of Figure 2.

We document the following repayment patterns. The differential default between flexible and standard loans only appears after the end of the original maturity (Figure 2a). Flexible credit borrowers miss scheduled payments at the same rate as standard credit borrowers during the original loan period (when pass use does not count as a missed payment). They are, however, significantly more likely to miss payments thereafter (Figure 2b). The cumulative rate of having ever missed a payment is slightly higher for flexible borrowers, but the difference is not statistically significant at any point during or after

the end of the original loan maturity (Figure 2c). Flexible borrowers repay a lower fraction of the principal amount throughout the original maturity, as both extension and no-extension passes are used, and this gap does not close after the end of the original loan period (Figure 2d).

We can draw the following conclusions: First, since default only appears *after* the end of the *original* loan period (Fig. 2a and b), only extension passes (in contrast to no-extension passes) are associated with negative repayment behavior. Second, because the share of borrowers who *ever* missed a payment is similar between flexible and standard borrowers (Fig. 2c), but the share of flexible borrowers who miss a payment after the end of the original period increases (Fig. 2b), we conclude that the flexible borrowers driving the difference in default rates by missing scheduled payments after the original loan period also missed payments during the original loan period. Third, the lack of treatment effects on loan renewal is consistent with the repayment behavior above as the set of borrowers driving the additional default (only statistically significant at the end of the loan cycle) were already behind on their loans and likely to be ineligible for a follow-on loan.

We next examine business, financing and stress-related outcomes using the follow-up survey (Tables 3 and 4). Column 1 reports the treatment effect of the flexible contract (pooling flexible and standard offer observations). There are no impacts on key outcomes such as sales, expenses, profits, or investment (Table 3). The 95% confidence intervals exclude effects larger than 13%, 22%, and 13% as a share of the Standard group means for sales, expenses, and profits, respectively (using the treatment effect +1.96*SE for the upper bounds), which means we can rule out some of the positive effects that have been documented for comparable outcomes in the literature. For example, Battaglia, Gulesci, and Madestam (2023) report effect sizes of 86%, 91% and 25% on annual revenues, costs and profits, respectively, for the sample of borrowers with access to the experiment's smaller loans. Barboni and Agarwal (2023) find an increase of 22% in monthly revenues --but no effects on profits-- from lower effective take-up of flexibility (31% flexible loan take-up, 56% flexibility use) than in our study (100% loan take-up in the analysis sample, 35% flexibility use). Column 6 reports the p-value of a difference in volatility (std. deviation) in sales and profits between the Flexible and Standard Contract groups, but none of the differences is statistically significant. Borrowers of the flexible loan appear to have slightly more businesses and to have started a secondary business. A new enterprise typically is an indication of risk-taking, but of course could also be a diversification strategy, and thus we are not able to infer whether the increase in secondary businesses is indicative of flexible lending making risk-taking more palatable for the entrepreneurs.

Table 4 reports no changes in additional business or financing outcomes and no change in an overall loan-related stress index, although borrowers of the flexible loan report thinking less about loan repayments (p=0.04) and a decrease in anxiety in the days prior to loan payment deadlines (p=0.09); but at the same time are less likely to be confident about repaying their loan (p=0.05). Table 4 also reports no change in a general stress index, though flexible loan borrowers report being less nervous or stressed (p=0.01).

In sum, we find no changes in revenues or profits in follow-up data collected about 10 months after loan disbursal but an increase in defaults among the Flexible Contract group. This group also reports lower stress and higher client satisfaction. Using Causal Forests to test for heterogenous treatment effects

(Athey, Tibshirani, and Wager 2019; Chernozhukov et al. 2020), we do not find evidence that effects vary systematically as a function of important client or business characteristics pre-loan disbursement, such as gender, sales or household expenses.

5. Conclusion

We study a flexible lending contract for first-time microcredit borrowers. We find that while flexibility was used by clients, there are no differences in the characteristics or take-up rates between flexible loan borrowers originally offered the flexible loan (Flex→Flex group) and those offered the standard loan (Std→Flex group). This lack of selection effects suggests the lender would not grow its client base much if it offered flexibility to new clients (although longer-term results, particularly given positive customer feedback, may indicate that more time and spreading of information would lead to stronger client acquisition). In addition, first-time borrowers of the flexible loan had higher default rates and limited downstream benefits. These results can help explain why lenders offer rigid loans, particularly to new clients.

Our sample includes *only* new clients. This is both a feature and a wart. Studying new clients is important for a more complete understanding of credit markets for small-scale entrepreneurs as they may lack experience with managing simultaneous cash flows and repayments. On the other hand, we cannot compare our results to those of more veteran borrowers studied in the literature discussed above, and our study's context differs from that of prior work in more than one way (see Appendix Table 1 for an overview of some salient features). We believe the comparison of new versus veteran clients is an important line of inquiry for future research on loan contract flexibility.

The epilogue to the study is indicative of a broader challenge. The lender viewed the use of passes as a simple way of handling repayment difficulties and introduced a modified version of the flexible loan for non-study loans. Crucially, however, only credit officers (and not clients) decided when to use a pass and clients were not made aware of the feature ahead of time. Pass use thus became merely a tool for credit officers to adjust default and pursue enforcement and refinancing when needed.

While such a policy may have its merits, it deviates from the goal of a product that allows borrowers, fearful of default, to take on higher-risk higher-return investments with the comfort of knowing they have some flexibility to repay. We see these results as motivating, for both lenders and researchers, to continue to learn more about how products can better "match cash flows" both with respect to timing and risk.

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Figure 1: Experimental design, take-up and data sources

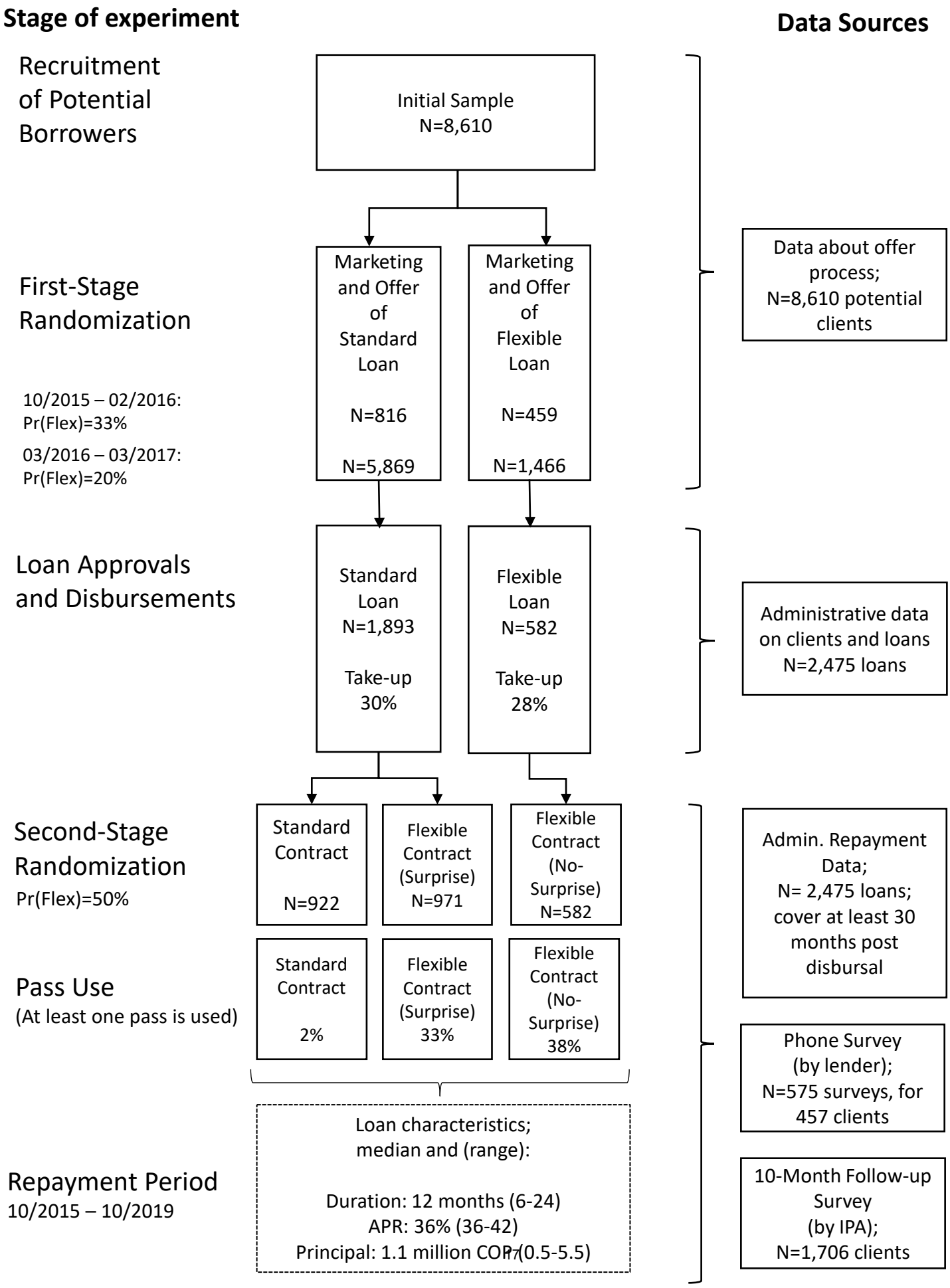
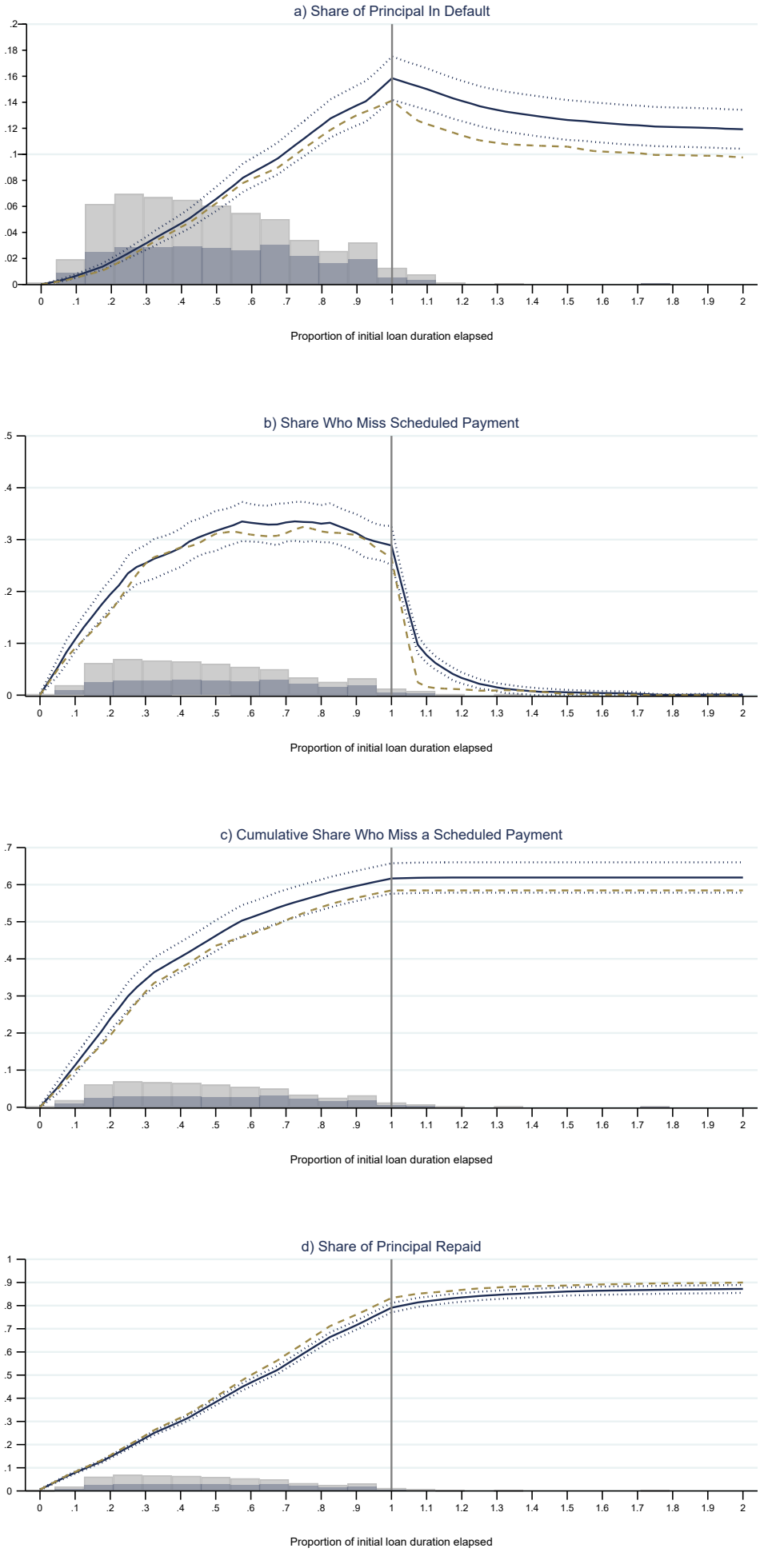


Figure 2: Contract Effects on Default Outcomes Over Time



Notes: The graphs use FMSD's monthly administrative data to show treatment effects over the course of the loan. Graphs show the mean in the standard loan group at a given point in time (dashed yellow lines), mean of the standard loan group plus flexible contract treatment effect (solid blue lines) including 95% confidence intervals (dotted blue lines). Regressions are based on monthly data. Since loans in our sample differ in length, we show the share of loan duration elapsed on the horizontal axis rather than months. We use a loan's original length to make flexible loans and standard loans comparable. We round the share of the loan elapsed to the nearest increment of 0.025 with linear interpolation for values in bins between data points for each loan. We use a similar process for the pass-use bar graph. Pass-use bar graphs are based on bins of 0.0833 (1/12) that match the modal 12-month loan length.

Table 1: Selection Effects on Observables Induced by Flexible vs Standard Offers

	(1)	(2)	(3)	(4)	(5)
	Flexible Contract Offers: Disbursed Loans		Standard Contract Offers: Disbursed Loans		p-value (1)=(3)
	Mean	SD	Mean	SD	
Panel A: Loan characteristics					
Principal (1000s COP)	1437	1008	1403	969	0.38
Term (months)	12.65	3.25	12.58	3.27	0.30
Interest rate (APR)	37	2	37	2	0.79
P-value of joint test					0.72
Panel B: Socioeconomic status (SES) of clients					
Client is female	0.66	0.47	0.64	0.48	0.69
Age of the client (years)	39.2	13.45	40.79	14.01	0.05
Married or in a common-law marriage	0.69	0.46	0.68	0.47	0.59
Some higher education	0.37	0.48	0.34	0.47	0.28
Client is head of household	0.19	0.4	0.23	0.42	0.04
Lives in a house (omitted: apartment or room)	0.87	0.33	0.88	0.33	0.99
Owns home	0.32	0.47	0.33	0.47	0.26
Household income (1000s COP)	1502	911	1437	821	0.36
Household expenses (1000s COP)	825	405	809	390	0.39
P-value of joint test					0.44
Panel C: Business characteristics					
Age of primary business (years)	8.95	7.36	9.10	7.84	0.46
Retail sector	0.64	0.48	0.62	0.48	0.58
Productive sector	0.17	0.37	0.16	0.36	0.42
Services sector	0.20	0.40	0.22	0.41	0.94
Sales (1000s COP)	3353	3143	3185	3112	0.56
Profits (1000s COP)	528	485	503	444	0.60
P-value of joint test					0.87
Number of observations	582		1893		
P-value of joint test: loan, SES, and business characteristics					0.73

Table 2: Contract and Selection Effects on Default

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Standard Contract	Flexible Contract (Pooling Offer Types)	Overall Comparison	No-Surprise Flexible Contract	Surprise Flexible Contract	Selection Effect	Contract Effect
	Std→Std	Std→Flex & Flex→Flex	Std Contract = Flex Contract	Flex→Flex	Std→Flex	Flex→Flex = Std→Flex	Std→Std = Std→Flex
			(1)=(2)			(4)=(5)	(1)=(5)
Dependent variable	Mean (SD)	Mean (SD)	p-value	Mean (SD)	Mean (SD)	p-value	p-value
Panel A: Default, unadjusted							
Proportion of principal in default at 3 months post maturity	0.13	0.16	0.00	0.15	0.16	0.63	0.01
	(0.21)	(0.23)		(0.23)	(0.23)		
Proportion of principal in default at 12 months post maturity	0.10	0.13	0.00	0.12	0.13	0.70	0.01
	(0.19)	(0.22)		(0.21)	(0.22)		
Missed a due payment (=1)	0.58	0.61	0.08	0.61	0.62	0.70	0.19
	(0.49)	(0.49)		(0.49)	(0.49)		
Got a new loan (=1)	0.33	0.33	0.61	0.33	0.33	0.71	0.83
	(0.47)	(0.47)		(0.47)	(0.47)		
Number of observations	922	1553	2,475	582	971	1,553	1,893
Panel B: Default, residuals after predicting default with observables							
Proportion of principal in default at 3 months post maturity	0.00	0.03	0.00	0.03	0.03	0.83	0.00
	(0.20)	(0.22)		(0.22)	(0.23)		
Proportion of principal in default at 12 months post maturity	0.00	0.02	0.00	0.02	0.03	0.88	0.01
	(0.19)	(0.21)		(0.20)	(0.21)		
Missed a due payment (=1)	0.00	0.02	0.16	0.01	0.03	0.96	0.19
	(0.47)	(0.48)		(0.48)	(0.48)		
Got a new loan (=1)	0.00	-0.01	0.70	-0.01	-0.01	0.91	0.76
	(0.45)	(0.46)		(0.46)	(0.46)		
Number of observations	922	1,553	2,475	582	971	1,553	1,893

In Panel B, we obtain residuals after regressing default outcomes on the 18 observable characteristics from Table 1 for the Standard Contract group, controlling for treatment assignment probability. Note on outstanding principal: For 238 clients who became deliquent and made payments after their loans were subsequently restructured, payment information available to us does not distinguish between principal and interest or fee payments. In the construction of the data, we consider those payments entirely as reductions of the principal. The rate of delinquent clients with payments after loan restructuring is balanced by treatment. In addition, if for the construction of "oustanding principal" we assume payments made post restructuring did not reduce the outstanding principle at all, the results in this table remain qualitatively unchanged.

Table 3: Effects on Main Business Outcomes (Survey Evidence 10 Months After Disbursement)

	(1)	(2)	(3)	(4)	(5)	(6)
	Comparing Flexible Contract (Flex→Flex & Std→Flex) to Standard Contract (Std→Std)					
Dependent variable	Treat effect (SE)	p-value	Std Contract mean	Flex Contract N	Std Contract N	p-value SD test
Sum of primary and non-primary businesses (000s COP)						
[1] Sales in the last month	-64.70 (223.23)	0.77	3081.59	1073	631	1.00
[2] Expenses in the last month	77.00 (159.58)	0.63	1781.24	1074	632	
[3] Profit in the last month	8.69 (53.74)	0.87	884.29	1058	627	0.77
[4] Investment in fixed assets in last six months	-19.12 (50.22)	0.70	352.66	1074	632	
[5] Number of businesses	0.07** (0.03)	0.02	1.14	1074	632	
[6] Index of business activities (rows 1-5)	0.02 (0.04)	0.65	-0.02	1058	626	
[7] Index of primary business activities	-0.01 (0.04)	0.72	-0.02	1041	609	
[8] Index of non-primary business activities	0.10** (0.05)	0.04	-0.01	1063	627	
[9] Difference: primary minus non-primary business activity indices	-0.12** (0.06)	0.05	-0.01	1033	606	
[10] Absolute value of difference: profit at application minus profit at 10 month follow-up	-10.02 (48.05)	0.83	680.10	1058	627	0.88

Regressions with sales, expenses, and profit as the outcomes (rows 1-3) control for the baseline value of the outcome. Outcomes are winsorized at the top and bottom 1 percent. Columns 1, 2, and 6 show results for regressions with Flexible Contracts (pooled Std-Flex and Flex-Flex) as the treatment group and Standard Contracts as the control group. Index of Business Activities (row 6) was constructed by calculating a primary component analysis (PCA) score of the outcomes in rows 1-5. The same process was done to constuct the indeces in rows 7 and 8, one for activities for the client's primary business and the other for activities for the client's non-primary business(es). P-values of tests of equality of standard deviations in column 6 were calculated using a randomization inference procedure with 2,000 independent iterations of randomization into flexible or standard contracts for which we calculated the difference in standard deviations of an outcome between the flexible and standard contract groups in each iteration. The p-value indicates the proportion of simulations in which the absolute value of the difference in standard deviations was smaller than the difference in standard deviations in our actual experimental assignment.

Table 4: Effects on Additional Outcomes (Survey Evidence 10 Months After Disbursement)

	(1)	(2)	(3)	(4)	(5)
	Comparing Flexible Contract (Flex→Flex & Std→Flex) to Standard Contract (Std→Std)				
Dependent variable	Treat effect (SE)	p-value	Std Contract mean	Flex Contract N	Std Contract N
Panel A: Additional business and financing outcomes					
[1] Has any informal loan	0.01 (0.02)	0.58	0.23	1,074	632
[2] Has any formal loan from institution other than FMSD	0.01 (0.02)	0.65	0.29	1,074	632
[3] Number of business improvement activites (out of 12)	0.13 (0.11)	0.22	1.40	1,074	632
[4] Hours worked per day	-0.05 (0.21)	0.80	6.53	1,074	632
Panel B: Loan-related stress outcomes					
[5] Loan-related stress index (average of rows [6]-[9])	-0.01 (0.01)	0.38	0.35	1,073	632
[6] Thinks about loan repayments at least once per week	-0.05** (0.02)	0.04	0.27	1,071	631
[7] Anxiety rises in the days prior to loan payment deadlines	-0.04* (0.03)	0.09	0.59	1,070	631
[8] Had problems with loan payments in last year	0.01 (0.03)	0.62	0.50	1,073	632
[9] Not confident that loan will be repaid	0.02** (0.01)	0.05	0.04	1,069	630
Panel C: General stress outcomes					
[10] General stress index (average of rows [11]-[17])	-0.01 (0.01)	0.28	0.14	1,073	632
At least once per week felt:					
[11] Nervous or stressed	-0.06*** (0.02)	0.01	0.26	1,071	632
[12] Upset about unexpected events	0.00 (0.02)	0.95	0.11	1,073	632
[13] Unable to control the important things in life	0.01 (0.01)	0.67	0.05	1,072	632
[14] Not confident about the ability to handle personal problems	0.00 (0.01)	0.68	0.05	1,072	632
[15] Stressed by job	0.00 (0.02)	0.99	0.15	1,073	632
[16] Job prevented from giving time to partner/family	-0.01 (0.02)	0.67	0.10	1,073	632
[17] Too tired after work to enjoy things at home	-0.01 (0.02)	0.53	0.23	1,073	632

Notes: Columns 1 and 2 show results for regressions with Flexible Contracts (pooled Std-Flex and Flex-Flex) as the treatment group and Standard Contracts as the control group. Outcomes in rows [3] and [4] are winsorized at the top and bottom 1 percent.

Appendix for
Give Me a Pass: Flexible Credit for Entrepreneurs in Colombia

NOT FOR PRINT PUBLICATION

Contents:

Section A. Details of Experiment and Empirical Strategy

Interest rates

At the start of the study in October 2015, FMSD charged between 36% and 42% interest rate with a 70-30 split, respectively. Over time, the share of loans with 42% increased so that by the end of the study in March 2017 all loans were charged 42% interest rate.

Additional details on first stage randomization

During the first five months of the intake process (corresponding to 15% of offers) the randomization procedure assigned one third of potential clients to a flexible credit offer and the remaining two thirds to a standard credit offer. From month six onward the proportion assigned to receive a flexible offer was reduced to 20% to increase the sample allocated to the standard-standard treatment group (i.e., those who both were offered and received the standard loan). The initial treatment assignment probability was set to balance the selection and impact hypotheses, but after initial analysis and feedback from the bank and observing the process, we decided to increase power for the impact research question relative to the selection question.

For the first-stage randomization, in the beginning of the experiment, until May 2016, we carried out the randomization by using a combination of potential clients' initials, day of offer and time of offer. Quasi-random, traceable characteristics of the interaction with the prospective client were used to prevent the possibility of promoters or credit officers gaming the system and adjusting offers based on client characteristics. We subsequently changed the randomization procedure to both make compliance monitoring easier logistically, given the large number of offers that were being made, and to allow for stratification of offers. The revised first-stage randomization procedure worked as follows: We assigned a fixed set of offers to each staff member that participated in promoting loans, either promoters, credit officers or front office staff, with the number of assigned offers depending on their role in the process (e.g. more offers to promoters, who had more promotion contacts). The offer sets were divided into blocks of offers. For each staff member, the size of the blocks was calibrated to approximately match the expected number of offers made during a two-week period. Randomization was then stratified by staff-member and block. The offer sequences were pre-loaded into the phones used for prospective client registration and the order of offers as registered was periodically checked by project staff against the pre-defined order of offers.

Empirical Strategy

Below we provide details about the regressions we use to account for the specifics of the randomization strategies employed in this experiment. The experimental design features two stages of randomization, and for logistical and design reasons the specifics of the randomization strategies varied throughout the course of the experiment.

Since the probability of assignment to a flexible credit offer in the first-stage randomization changed during the experiment (see Figure 1 and first-stage randomization details above), we adjust the standard estimation equation to avoid potential bias from correlation of client characteristics with the assignment probability. Following Gibbons, Suarez Serrato, and Urbancic, (2019), we estimate treatment effects

separately for the two periods and calculate a weighted average based on the two periods' sample frequencies.

Specifically, to analyze the effect of assignment to a flexible offer, we estimate the following regression equation for (potential) client i:

$$(1)\ Y_i = \alpha + \beta_1\left(T_i * R_{1,i}\right) + \beta_2\left(T_i * (1 - R_{1,i})\right) + \gamma R_{1,i} + \delta X_i + \epsilon_i,$$

where Ti is an indicator for assignment to a flexible offer, and R1 is an indicator for receiving an offer in the initial period, Yi is the dependent variable. β1 and β2 capture the effects of receiving a flexible contract for clients who received offers in the early and late recruitment periods respectively. We then estimate the average treatment effect by averaging the estimates for β1 and β2, proportionally to each period's sample size.

We include as additional controls denoted by X_i a set of dummies to account for the stratified random assignment in the later part of the experiment. The stratification cells that result from the combination of staff and ordered blocks that were chosen for logistical reasons as described above result in many "empty" cells. To fully use the variation induced by the experiment we approximate the stratification cells by using two separate sets of fixed effects, one for staff and one for year-quarter that reflect the idea of the stratification in practice (the specific specification with respect to stratification fixed effects, including omitting them, does not materially affect the results).

Standard errors are clustered at the level of experimental group assignment, which was individual in the later part of the experiment but was based on the combination of first name initials, day of offer and time of offer in the earlier part of the experiment.

To estimate the effect of the flexible contract based on the second-stage randomization we use a simple regression of loan performance outcomes on contract assignment among standard loan takers. The regression is simpler since the target rate of flexible contract assignment was fixed and was not stratified. Following the second-stage random assignment strategy, we cluster standard errors by groups of the same last-three-digits of national ID in the earlier part of the experiment and do not cluster in the later part of the experiment,

For the combined contract analysis that pools flexible credit observations irrespectively of first-stage type of offer we apply the first-stage specification from above, including controls for stratification, but use two-way clustering, with the first dimension of clustering equal to that of the first-stage specification and the second stage dimension equal to that of the second-stage specification.

Section B. Marketing Script

Good morning Sir/Madam. I am visiting you from Fundacion Mario Santo Domingo.

Today we are offering loans to people who wish to strengthen or expand their business.

Any type or size of business can access our offer.

Note for the enumerator: Before continuing make sure the person passes the following filter questions.

- *OWNS THE BUSINESS*
- *BUSINESS HAS BEEN FUNCTIONING FOR 6 MONTHS*
- *DOES NOT HAVE A BAD REPORT IN DATACREDITO*
- *IS NOT OVERINDEBTED*
- *ALSO:* ***make sure the client does not have an active loan application.***

Did the person pass the filter?

No → The person does not qualify for our loans. Move on to the next client.

Yes → Continue.

Are you interested in hearing about the offer that we have available today?

No → The person is not interested. Move on to the next house.

Yes → Continue.

If the offer is for a NON-FLEXIBLE loan:

ORANGE KIVA: Kiva NON-FLEXIBLE loan offer Type of interest: 3% monthly. (36% annually.) WITHOUT the right to postpone installments

If the offer is for a FLEXIBLE loan:

RED KIVA: Kiva FLEXIBLE loan offer Type of interest: 3% monthly. (36% annually.) WITH the right to postpone installments

Is the interviewee interested in the offered product?

Not interested → Thank you very much for your time. We are leaving all the information in this flyer. If you have any questions you can call us on the phone numbers listed there. Have a good day.

Wants to proceed with the application → Thank you very much for your interest. To continue with the loan process I need you to give me some personal information. With these, the loan officer can get in touch with you over the course of the week, and if everything goes well, in 2 or 3 days you will have your loan.

Will think about it → I will leave this flyer with all the information. If you do decide to access our loan, you can call the loan officer whose number is on the flyer. However, to access the offer we gave you today I would need to take some personal information.

Marketing Script: Original Spanish

Buenos días señor/señora. Le visitó de la fundación Mario Santo Domingo.

En el dia de hoy estamos ofreciéndole créditos a aquellas personas que deseen fortalecer y/o expandir su negocio.

Cualquier tipo y tamaño de negocio puede acceder a nuestra oferta.

Nota para el/la encuestador(a): Antes de seguir asegurese que la persona supera las preguntas filtro.

- *PROPIETARIO DEL NEGOCIO*
- *6 MESES DE FUNCIONAMIENTO*
- *NO TIENE MAL REPORTE EN DATACRÉDITO*
- *NO ESTÁ SOBREENDEUDADO*
- *ADEMÁS:* ***asegurarse que el cliente no tenga una solicitud de crédito activa.***

Pasó el filtro la persona?

No → La persona no califica para nuestros créditos. Pasa al siguiente cliente.

Sí → Continuar.

Estaría interesado en que le comente la oferta que llevamos en el dia de hoy?

No → La persona no está interesada. Dirigete a la siguiente casa.

Sí → Continuar.

Si la oferta es para un crédito NO FLEXIBLE:

KIVA NARANJA: Oferta de crédito Kiva NO FLEXIBLE Tipo de interés: 3% E.M. (36% E.A.) SIN derecho a aplazar cuotas

Si la oferta es para un crédito FLEXIBLE:

KIVA ROJO: Oferta de crédito Kiva FLEXIBLE Tipo de interés: 3% E.M. (36% E.A.) CON derecho a aplazar cuotas

¿El encuestado está interesado en el producto ofrecido?

No le interesa → Muchas gracias por su tiempo. Le dejamos toda la información en este folleto. Cualquier inquietud puede llamar a los teléfonos que allí aparecen. Que tenga un buen día

Quiere hacer en tramite → Muchas gracias por su interés. Para continuar el proceso de crédito, necesito que me regale algunos datos personales. Con estos, el asesor puede ponerse en contacto con usted en el transcurso de la semana, y si todo sale bien, en 2 o 3 días tendrá su crédito.

Lo pensara → Aquí le dejo este folleto con toda la información. Si finalmente se decidiese a acceder a nuestro crédito, puede llamar al asesor al número que aparece en el folleto. Sin embargo, para poderse beneficiar de la promoción que llevamos hoy necesitaría tomarle algunos datos personales.

¡Búscanos en Twitter y Facebook!

@yoprospero

www.facebook.com/FundacionMarioSantoDomingo

Contáctenos

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Fundación Mario Santo Domingo

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Tel. 6070707 Ext. 48305

Para que lleve control de su crédito flexible…

Plazo de su crédito: _____ meses

Pases disponibles: _____ pases

Pases utilizados: __1, __2, __3, __4. __5, __6

Nombre Asesor: _____

Teléfono Asesor: _____

FUNDACIÓN
MARIO SANTO DOMINGO.
Por el Desarrollo Social de Colombia

CRÉDITO FLEXIBLE

Yo PRÓSPERO
microcréditos para grandes sueños

Fundación Mario Santo Domingo
Guía explicativa

CRÉDITO FLEXIBLE

Estimado usuario: **¡Usted es beneficiario de un crédito flexible de la Fundación Mario Santo Domingo!**

¿Qué es?

Un **crédito flexible** le permite aplazar su cuota de capital mensual en cualquier momento durante su crédito.

- Durante el transcurso de su crédito, usted tiene la posibilidad de **aplazar hasta 3 cuotas de capital cada 12 meses.**
- Al aplazar la cuota, **pagará únicamente los intereses** y otros conceptos, pero no el capital (llame al asesor para conocer el monto exacto).
- El monto de capital que decida aplazar lo pagará **añadiendo una cuota adicional** al final del crédito.
- La cuota que se añadirá al final tendrá **el mismo valor que cualquier otra cuota** de su calendario de pagos.
- **¡IMPORTANTE!** Al aplazar la cuota de capital:
  - **NO está entrando en mora, siempre** y cuando usted pague la cuota reducida en la fecha especificada en su plan de pagos.
  - **NO afectará su credibilidad crediticia** delante de la FMSD.
  - **NO afectará su probabilidad de acceder a otro crédito** en el futuro.
  - **NO impedirá** que reciba un crédito de mayor valor en el futuro.

Aplazar el pago del capital de su cuota mensual ayuda al crecimiento de su negocio y mejora su capacidad de pago. Este producto está diseñado para fortalecer su negocio y así aumentar sus beneficios.

¿Cuándo usar el pase?

Aplace el pago de capital de su cuota mensual haciendo uso de un **pase** cuando:

- Se le presente una **oportunidad de inversión** interesante para su negocio.
- Se le presente una inversión de **ganancias altas pero no inmediatas**.
- Quiera **aprovechar ofertas** en la compra de productos para incrementar sus ganancias.
- Necesite hacer frente a **ingresos bajos** en su negocio.
- Tenga una **calamidad familiar** que le impida cancelar la cuota completa.

¡No dude en aprovechar las ventajas de su crédito flexible!

¿Cómo usar el pase?

Cada oportunidad de aplazar su cuota de capital se conocerá como **pase**. Para utilizar sus pases siga estos pasos:

1. **Identifique el evento** por el que le convendría aplazar la parte de capital de su cuota mensual.
2. **Llame al asesor** con anticipación al pago de su cuota del mes y explíquele las razones por las que va a utilizar el pase. Él le indicará el monto a pagar.
3. Realice el pago del **valor indicado por el asesor**, siguiendo su calendario de pagos habitual.
4. **Aproveche el valor del capital** de la cuota para responder a la situación por la cual solicitó el pase.
5. Contacte a su asesor para conseguir su nuevo calendario de pagos y sus **nuevos recibos.**
6. **Páguelo cómodamente al final de su crédito** mediante una cuota adicional (si su crédito era de 12 meses, pagará su cuota aplazada el 13° mes).

¡Es muy fácil aprovechar los beneficios de su crédito flexible!

Yo PROSPERO
microcréditos para grandes sueños

FLEXIBLE CREDIT

Dear client: You are beneficiary of a Flexible Credit from Fundación Mario Santo Domingo!

What is a Flexible Credit?

A flexible credit allows you to postpone the share of capital of your monthly installment at any time during your credit.

- During the whole duration of your credit you have the option to postpone up to 3 capital installments every 12 months.
- When you postpone an installment, you will only pay interest rate fees and other fees, but you will not pay the share of the capital (call your credit officer to know the exact amount).
- The share of capital that you postpone will be repaid at the end of the credit, through an additional installment.
- The additional installment would have the same value as any other installment in your repayment plan.
- IMPORTANT! When you postpone an installment:
    - Your credit will not be in default, as long as you pay the reduced installment by the date that the installment is due according to your repayment plan.
    - It will not affect your credit worthiness at FMSD.
    - It will not affect your chances to receive another loan in the future.
    - It will not prevent you from accessing a bigger loan in the future.

Postponing the payment of the capital of your monthly installment helps you growing your business and improves your repayment capacity. This product is designed to strengthen your business and increase your profits.

When to use a pass?

Postpone the payment of the capital of your monthly installment by using a pass when:

- Facing an interesting investment opportunity for your business.
- Facing an investment with high but not immediate returns.
- Facing good deals to buy merchandise to increase your profits.
- Facing low sales in your business.
- Facing a family emergency that prevents you from paying the whole installment.

Do not hesitate and use the advantages of your flexible credit.

How to use a pass?

Each option to postpone your capital installment will be known as a pass. To use your passes, follow these steps:

1. Identify the event due to which it would be convenient for you to use a pass.
2. Call your credit officer before the date of payment and explain him the reasons for which you will use a pass. He will tell you the amount to be paid.
3. Pay the amount indicated by the credit officer, following the date of your repayment calendar.
4. Use the capital of the installment to face the situation for which the pass was requested.
5. Contact your credit officer to obtain your new repayment plan.
6. Pay at the end of your loan through an additional installment (if your credit was 12 months long, you will pay the postponed capital in the 13th month).

It is very easy to use the benefits of your flexible credit!

For your own control of your flexible credit:

Length of the credit: _____ months

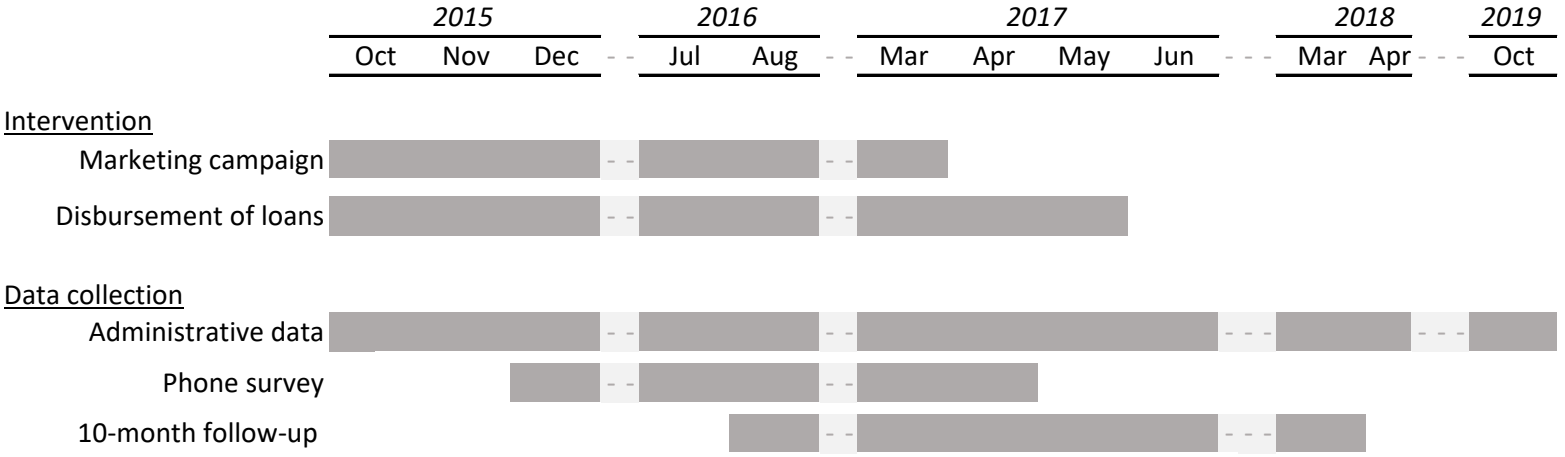
Available passes: _____ passes

Requested passes: __ 1, __ 2, __ 3, __ 4, __5, __ 6

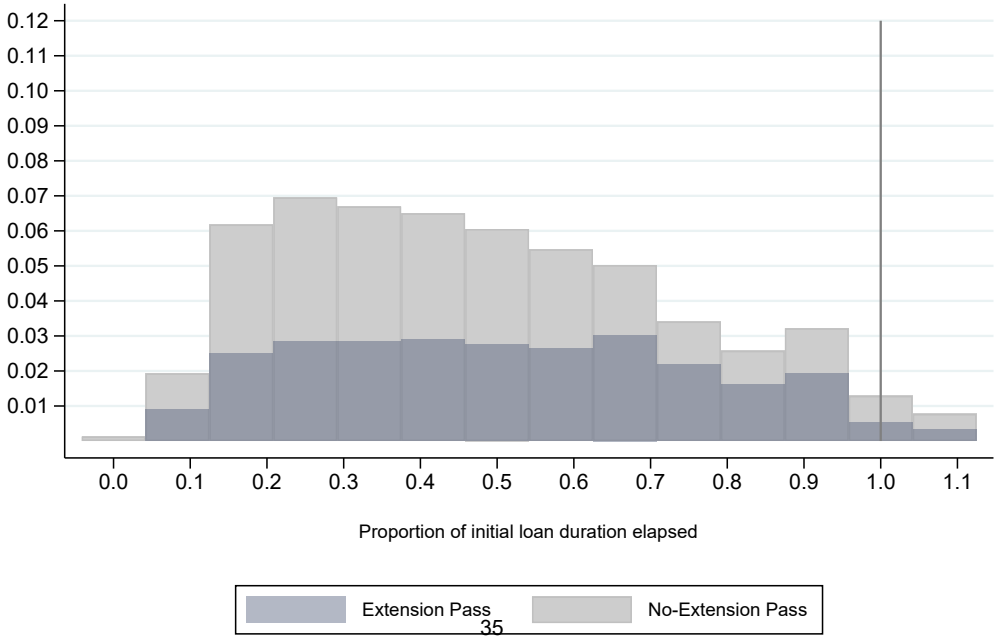
Credit Officer Name: _____

Credit officer Phone number: _____

Appendix Figure 1: Intervention and data collection timeline



Appendix Figure 2: Pass Use By Proportion of Loan Duration Elapsed



Note: There are two pass uses that are not shown which occurred beyond the end of the graph's range for the horizontal axis (1 in bin 1.333-1.417 and 1 in bin 1.750-1.833).

Appendix Table 1: Flexibility in loan repayment in the literature

	(1)	(2)	(3)	(4)	(5)	(6)
Paper	BA	BGM	***BGK***	FPPR	AKK	SK
Country	India	Bangladesh	***Colombia***	India	India	Bangladesh
Rural/urban	Urban	Rural	***Urban***	Urban	Rural	Rural
Gender	M	F[(1)]	***mixed***	F	F	mixed
Old or new clients	old	old	***new***	mixed	mixed	new
Type of pass	3m-block reshuffle per 12m	1m extension per 12m	***1m reshuffle or extension per 12m***	2m extension per 12m	line of credit	3m reshuffle per 12m
Choice over pass use	yes	yes	***yes***	no	yes	no
When can passes be used?	1 per year, anytime during loan	Anytime during loan	***Anytime during loan***	First 2 months (grace period)	Anytime during loan	Lean season
Lag to use it?	Yes	No	***No***	NA	No	NA
Liability	IL	IL	***IL***	IL	JL	IL
Meeting	No	Yes[(1)]	***No***	Yes	Yes	Yes
Number of passes	2	2	***3***	1	NA	NA
Loan size relative to GDP per capita	33%	25% and 197%	***8%***	22%	10% or 21% [(3)]	5%
Cost of Credit (APR) [(4)]	Std: 24%; Flex: 26%	22%	***36%-42%***	17.50%	24%	12%
Selection into flex contract?	yes	yes	***no***	no	no	no
Test of selection on observables	yes	yes	***yes***	no	no	no
Results: Biz and Socioeconomic	Increase	Increase *(Dabi)* / No Effect *(Protogi)*	***No Effect***	Increase	Increase	Increase
Results: Default	No effect	Decrease *(Dabi)* / No Effect *(Protogi)*	***Increase***	Increase	Not reported	No effect

(1) The study includes collateral-free loans provided to women with monthly group meetings (Dabi), and larger collateral-backed debt loans to both female and male borrowers without group meetings (Progoti).
(2) The loan period was set to 3 years for credit line clients and 1, 1.5 or 2 years for term loan clients.
(3) Line of credit size decided by loan officers depending on characteristics of the borrower and their business.
(4) Does not include fees, which can be substantial; however, information was not available for all papers.
Papers featured: BA: Barboni and Agarwal (2023); BGM: Battaglia, M., S. Gulesci, and A. Madestam (2023); ***BGK*** : Brune, L, X. Giné and D. Karlan (this paper); FPPR: Field, E., R. Pande, J. Papp, and N. Rigol (2013); SK: Shonchoy, A. and T. Kurosaki (2014)AAK: Aragon, F. M., A. Karaivanov, and K. Krishnaswamy (2020). "Liability" refers to the liability structure. IL refers to individual liability where the borrower is resposible for the repayment of the loan. JL refers to joint liability "Lag to use it?" refers to whether the use of the pass had to be communicated to the lender with a lag of an installment period or more. "Selection into flex contract?" refers to whether a choice between the Flexible and Standard Contract was given to the borrower.

Appendix Table 2: Sample Repayment Schedule

Loan information	
Amount	1,000,000
Duration in months	12
Interest rate p.a.	36%

Repayment schedule

	A. Without pass use				B. With extension pass use in month 4				C. With no-extension pass use in month 4			
	Payments				Payments				Payments			
Month	Total	Principal	Interest	Fees	Total	Principal	Interest	Fees	Total	Principal	Interest	Fees
1	116,858	70,462	30,000	16,396	116,859	70,462	30,000	16,397	116,858	70,462	30,000	16,396
2	116,858	72,576	27,886	16,396	116,859	72,576	27,886	16,397	116,858	72,576	27,886	16,396
3	116,858	74,753	25,709	16,396	116,859	74,753	25,709	16,397	116,858	74,753	25,709	16,396
4	116,858	76,996	23,466	16,396	36,998	0	23,466	13,532	36,998	0	23,466	13,531
5	116,858	79,306	21,156	16,396	116,271	76,996	23,466	15,809	127,951	87,964	23,466	16,521
6	116,858	81,685	18,777	16,396	116,271	79,306	21,156	15,809	133,783	90,603	26,659	16,521
7	116,858	84,135	16,327	16,396	116,271	81,685	18,777	15,809	133,022	93,321	23,180	16,521
8	116,858	86,659	13,803	16,396	116,271	84,135	16,327	15,809	132,238	96,121	19,596	16,521
9	116,858	89,259	11,203	16,396	116,271	86,659	13,803	15,809	131,430	99,005	15,905	16,521
10	116,858	91,937	8,525	16,396	116,271	89,259	11,203	15,809	130,599	101,975	12,103	16,521
11	116,858	94,695	5,767	16,396	116,271	91,937	8,525	15,809	129,742	105,034	8,187	16,521
12	116,858	97,536	2,926	16,396	116,271	94,695	5,767	15,809	128,860	108,185	4,154	16,521
13	0	0	0	0	109,021	97,536	2,926	8,559	0	0	0	0
Sum	1,402,301	1,000,000	205,545	196,756	1,426,764	1,000,000	229,011	197,752	1,435,197	1,000,000	240,312	194,886

Borrowers pay loan insurance fees, sales comission, and administrative fees. Additionally, borrowers who use a pass incur fees when using a pass. Total fees displayed approximate actual fees that borrowers pay. Timing of these fees may have varied in practice, which we omit for simplicity. Total fees spreads pass use fees evenly over remaining post-pass installments -- timing in practice also may vary. The nominal interest rate is 36% per year. Including Fees, Borrowers repay between 1.40 and 1.45 of what they initially borrow. Blue bars represent installment size.

Appendix Table 3: Recruitment Process Balance Tests and Take-up

	(1) Flexible Contract Offers: All Offers Mean	(2) Standard Contract Offers: All Offers Mean	(3) p-value (1)=(2)
Panel A: Recruitment Process			
1. Proportion by recruiter & recruitment location:			
Promoter			
Via door-to-door promotion	0.54	0.51	0.47
At financial event	0.11	0.15	0.04
Credit officer			
At financial event	0.07	0.08	0.93
At branch	0.10	0.08	0.14
Front desk staff			
At financial event	0.07	0.08	0.82
At branch	0.09	0.09	0.99
Other or missing	0.02	0.01	0.71
Total	1.00	1.00	
2. Proportion by branch location:			
Barranquilla	0.70	0.68	0.09
Cartagena	0.30	0.31	0.08
Total	1.00	1.00	
Number of observations	1925	6685	
P-value of joint test			0.20
Panel B: Eligibility & Take-up (Proportions)			
Client did not finish filling out initial application	0.25	0.23	0.29
Client's application did not proceed because:			
Negative credit assessment	0.31	0.35	0.02
No co-signer provided	0.10	0.10	0.71
Address not found or not covered	0.02	0.02	0.79
Application withdrawn	0.01	0.01	0.98
No follow-up by credit officers	0.01	0.00	0.48
Loan disbursed (application proceeded)	0.30	0.28	0.26
Total	1.00	1.00	
Number of observations	1925	6685	
P-value of joint test			0.40
Panel C: Proportion of offers that led to disbursed loan, by recruitment location			
Door-to-door promotion *(N=4,490)*	0.24	0.23	0.47
Financial event *(N=2,518)*	0.23	0.21	0.65
Branch *(N=1,602)*	0.57	0.57	0.90

51 observations (0.59% of the sample) have missing data for the branch location variables in the Recruitment Process section. For the joint test in Column 3, we include an indicator variable for missing for branch location. Regressions that the p-value for test of differences for Panel A are based on omit the staff fixed effects used elsehwere because for a given staff member there was not enough variation in some of the variables such as branch location.

Appendix Table 4: Balance for Surprise Flexible Credit Randomization

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Standard-Offer-Flexible-Contract: Disbursed loans		Standard-Offer-Standard-Contract: Disbursed loans		Surprised into Flex Comparison	Flexible Contract (Any Offer): Disbursed loans		Overall Contract Comparison
	Std→Flex		Std→Std		Std→Flex = Std→Std	Std→Flex & Flex→Flex		Std Contract = Flex Contract
	Mean	SD	Mean	SD	(1)=(3) p-value	Mean	SD	(3)=(6) p-value
Panel A: Loan characteristics								
Principal (1000s COP)	1405	974	1401	964	0.89	1417	987	0.58
Term (months)	12.54	3.19	12.63	3.35	0.51	12.58	3.21	0.84
Interest rate (APR)	37	2	37	2	0.22	37	2	0.25
P-value of joint test					0.84			0.80
Panel B: Socioeconomic status (SES) of clients								
Client is female	0.64	0.48	0.65	0.48	0.87	0.65	0.48	0.96
Age of the client (years)	40.57	14.14	41.01	13.87	0.43	40.06	13.9	0.09
Married or in a common-law marriage	0.67	0.47	0.69	0.46	0.32	0.68	0.47	0.48
Some higher education	0.34	0.47	0.34	0.47	0.79	0.35	0.48	0.37
Client is head of household	0.23	0.42	0.24	0.43	0.80	0.22	0.41	0.35
Lives in a house (omitted: apartment or room)	0.88	0.33	0.88	0.33	0.92	0.87	0.33	0.81
Owns home	0.32	0.47	0.34	0.47	0.36	0.32	0.47	0.15
Household income (1000s COP)	1423	793	1453	850	0.45	1452	840	0.83
Household expenses (1000s COP)	807	394	811	386	0.78	814	398	0.94
P-value of joint test					0.97			0.81
Panel C: Business characteristics								
Age of primary business (years)	8.79	7.56	9.43	8.12	0.08	8.85	7.49	0.11
Retail sector	0.64	0.48	0.61	0.49	0.16	0.64	0.48	0.26
Productive sector	0.15	0.36	0.17	0.37	0.30	0.16	0.36	0.38
Services sector	0.21	0.41	0.22	0.42	0.44	0.21	0.40	0.57
Sales (1000s COP)	3155	2998	3216	3229	0.66	3229	3054	0.69
Profits (1000s COP)	502	435	504	452	0.96	512	455	0.89
P-value of joint test					0.33			0.62
Number of observations	971		922		1893	1553		2475
P-value of joint test: loan, SES, and business characteristics					0.85			0.87

Appendix Table 5: Response rate at 10-Month Post-Disbursement Survey

	Dependent Variable: Surveyed at 10-Month Follow-up (=1)				
	Regression with Pooling of Flexible Contracts		Regression Split by Offer for Flexible Contracts		
	(1)	(2)	(3)	(4)	(5)
		Flex Contract interacted with:		Flex→Flex interacted with:	Standard→Flex interacted with:
Flexible Contract (Any Offer)	0.09				
	(0.15)				
Flex-Flex			0.12		
			(0.20)		
Standard-Flex			0.08		
			(0.16)		
Barranquilla (=1)	0.15***	0.03	0.15***	0.02	0.08
	(0.06)	(0.06)	(0.06)	(0.08)	(0.06)
Female (=1)	0.06*	0.00	0.06*	0.04	-0.03
	(0.03)	(0.04)	(0.03)	(0.05)	(0.05)
Age of the client (10 years)	0.04***	-0.01	0.04***	0.00	-0.02
	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)
Commercial sector (=1)	0.03	-0.07	0.03	-0.05	-0.08
	(0.04)	(0.05)	(0.04)	(0.07)	(0.06)
Services sector (=1)	0.06	-0.09	0.06	-0.08	-0.10
	(0.05)	(0.06)	(0.05)	(0.08)	(0.07)
Household income (millions COP)	0.01	0.01	0.01	0.04	-0.01
	(0.03)	(0.04)	(0.03)	(0.04)	(0.04)
Household expenses (millions COP)	-0.10**	0.06	-0.10**	0.04	0.09
	(0.05)	(0.06)	(0.05)	(0.08)	(0.07)
Sales (millions COP)	0.01**	-0.01	0.01**	-0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Profits (millions COP)	0.01	-0.05	0.01	-0.17**	0.02
	(0.05)	(0.06)	(0.05)	(0.08)	(0.07)
Term (months)	0.01	-0.01	0.01	-0.02	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Principal (millions COP)	-0.08***	0.06*	-0.08***	0.10**	0.05
	(0.03)	(0.04)	(0.03)	(0.04)	(0.04)
Any outstanding principal 12m post initial maturity (=1)	-0.09**	-0.05	-0.09**	0.00	-0.07
	(0.04)	(0.05)	(0.04)	(0.06)	(0.05)
Mean of Dependent Variable	0.69		0.69		
Observations	2,475		2,475		
R-Squared	0.11		0.11		
P-value of F-Tests:					
Treatment = 0	0.55		0.92		
Treatment & Interacted Covariates = 0		0.61		0.24	
Interacted Covariates = 0		0.56		0.36	
Interacted Covariates = 0 (Standard→Flex)				0.40	
Interacted Covariates = 0 (Flex→Flex)					0.28

Columns 1 and 2 show coefficients from a single regression; likewise for columns 3 - 5. Regressions control for treatment assignment probability. Standard errors in parentheses.
*** p<0.01, ** p<0.05, * p<0.1.

Appendix Table 6: Flexible Pass Use

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Flexible Contract (Pooling Offer Types)	Standard Contract	Overall Comparison		Surprise Flexible Contract	No-Surprise Flexible Contract	Selection Effect	
	Std→Flex & Flex→Flex	Std→Std	Std Contract = Flex Contract (1) = (2)		Std→Flex	Flex→Flex	Std→Std = Std→Flex (1)=(5)	
Dependent variable	Mean	Mean	Treat effect (SE)	p-value	Mean	Mean	Treat effect (SE)	p-value
Used at least one pass	0.35	0.02	0.33	0.00	0.34	0.38	0.05	0.04
			(0.01)				(0.03)	
Used exactly 1 pass	0.20	0.02	0.18	0.00	0.20	0.21	0.02	0.43
			(0.01)				(0.02)	
Used exactly 2 passes	0.08	0.00	0.08	0.00	0.07	0.09	0.03	0.08
			(0.01)				(0.02)	
Used exactly 3 passes	0.05	0.00	0.05	0.00	0.05	0.05	0.00	0.79
			(0.01)				(0.01)	
Used 4 or more passes	0.01	0.00	0.01	0.00	0.01	0.02	0.01	0.41
			(0.00)				(0.01)	
Number of passes used	0.59	0.02	0.57	0.00	0.56	0.63	0.11	0.05
			(0.03)				(0.05)	
Number of extension passes used	0.28	0.02	0.26	0.00	0.28	0.27	-0.01	0.77
			(0.02)				(0.03)	
Number of no-extension passes used	0.31	0.01	0.31	0.00	0.28	0.36	0.1	0.01
			(0.02)				(0.04)	
Used maximum number of passes alloted	0.07	0.00	0.06	0.00	0.07	0.06	0.00	0.90
			(0.00)				(0.01)	
Has used pass in the first quarter of loan	0.13	0.00	0.13	0.00	0.12	0.15	0.04	0.06
			(0.01)				(0.02)	
Number of observations	1,553	922	2,475	2,475	971	582	1,553	1,553

Columns 3 and 4 show results for regressions with Flexible Contracts (pooled Std-Flex and Flex-Flex) as the treatment group and Standard Contracts as the control group. Columns 7 and 8 show results for regressions with Surprise Flexible Contracts (Std-Flex) as the treatment group and No-Surprise Flexible Contracts (Flex-Flex) as the control group.

Appendix Table 7: Client Feedback (from Lender Phone Surveys)

	(1)	(2)	(3)	(4)
	Flexible Contract (Flex→Flex & Std→Flex)			
Panel A: Pass use	Mean	N		
[1] Client knows what a pass is	0.98	345		
[2] Used a pass	0.18	345		
Reasons for pass use				
[3] Personal or family calamity	0.43	63		
[4] Business investment	0.41	63		
[5] Business problems	0.19	63		
[6] Other	0.02	63		
	Comparing Flexible Contract (Flex→Flex & Std→Flex) to Standard Contract (Std→Std)			
Panel B: Client satisfation	Treat effect (SE)	p- value	Std Contract mean	N
[7] Confident or very confident that client will repay	0.02 (0.03)	0.48	0.92	575
[8] Good or very good service quality	0.07*** (0.03)	0.01	0.89	575
Reasons for good service				
[9] Quickness	-0.09** (0.04)	0.04	0.39	575
[10] Personalized attention	0.03 (0.04)	0.52	0.24	575
[11] Flexible product	0.15*** (0.02)	0.00	0.00	575
[12] Interest rate	-0.00 (0.01)	0.95	0.01	575
[13] Kindness	-0.00 (0.05)	0.93	0.38	575
[14] Comfortable installments	0.00 (0.02)	0.93	0.04	575

Data based on phone survey conducted by the lender. From December 2015 to April 2017 the lender called a random 5% sample of clients in the study at that time per month (stratified additionally by loan officer and credit type, with one client minimum per credit officer, month and credit type). Questions about reasons for pass use were open-ended with both pre-coding of answers by enumerators and free text for detailed explanations. The knowledge and pass use questions from Panel A were only asked to clients with a flexible loan. Question [1] was asked as first as "Do you know what a pass is?" and if clients did not know the term "pass", the enumerator clarified "Did you know that you can pay reduced installments?". A total of 285 flexible loan clients were surveyed, for a total of 345 survey responses (clients could be selected in more than one month's sample). Mean pass use for the December 2015 to April 2017 period was 0.187 for all flexible loan clients according to lender administrative data. This is similar to the self-reported pass use mean reported in row 2. Out of the 345 survey responses, 320 (93%) had pass use recall that was congruent with the lender administrative data. An additional 3% of the 345 survey responses had discrepancies between self-reported pass use and pass use from administrative data that were likely due to minor lags in the reporting of pass use in the administrative records. In these instances, clients claimed to have used a pass already and the administrative records indicated they had not. The following month the adminsitrative records indicated the clients had indeed used a pass, which is an indication that these discrepancies were due to minor lags in recording pass use. Panel B: Columns 1 and 2 show results for regressions with Flexible Contracts (pooled Std-Flex and Flex-Flex) as the treatment group and Standard Contracts as the control group. For the outcome in row 7 clients were asked how confident they were that they would be able to repay their loan, on a 1-5 scale from very unconfident to very confident. The outcome is a dummy equal to 1 if the client gave an answer of either confident or very confident. For the outcome in row 8 clients were asked how the lender's service quality had been so far, on a 1-5 scale from very bad to very good. The outcome is a dummy equal to 1 if the client gave an answer of either good or very good. For the outcomes in rows 9-14 the clients were asked what in particular they had liked about the lender's service. Respondents were not provided with options, but were asked to name everything they liked about the service, and the enumerator would select the reasons mentioned from a list of pre-coded answers. These questions were asked before the questions on pass use asked for flexible clients shown in Panel A. A total of 457 clients were surveyed, for a total of 575 survey responses (clients could be selected in more than one month's sample). Standarrd errors shown in parentheses are clustered at the client level (if not at a higher level, see Empirical Strategy section) to account for mulitple surveys per person.

Appendix Table 8: Contract and Selection Effects in Default for Borrowers Who Got Loans From Door-to-Door Salespeople

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Standard Contract	Flexible Contract (Pooling Offer Types)	Overall Comparison	No-Surprise Flexible Contract	Surprise Flexible Contract	Selection Effect	Contract Effect
	Std→Std	Std→Flex & Flex→Flex	Std Contract = Flex Contract	Flex→Flex	Std→Flex	Flex→Flex = Std→Flex	Std→Std = Std→Flex
			(1)=(2)			(4)=(5)	(1)=(5)
Dependent variable	Mean (SD)	Mean (SD)	p-value	Mean (SD)	Mean (SD)	p-value	p-value
Panel A: Default, unadjusted							
Proportion of principal in default at 3 months post maturity	0.15	0.16	0.57	0.15	0.16	0.96	0.45
	(0.22)	(0.23)		(0.23)	(0.24)		
Proportion of principal in default at 12 months post maturity	0.12	0.13	0.31	0.12	0.14	0.90	0.25
	(0.20)	(0.22)		(0.22)	(0.22)		
Missed a due payment (=1)	0.61	0.62	0.87	0.58	0.64	0.28	0.54
	(0.49)	(0.49)		(0.49)	(0.49)		
Got a new loan (=1)	0.33	0.33	0.89	0.35	0.32	0.47	0.72
	(0.47)	(0.47)		(0.48)	(0.47)		
Number of observations	387	648	1,035	248	400	648	787
Panel B: Default, residuals after predicting default with observables							
Proportion of principal in default at 3 months post maturity	0.01	0.02	0.58	0.02	0.02	0.96	0.47
	(0.21)	(0.22)		(0.22)	(0.23)		
Proportion of principal in default at 12 months post maturity	0.01	0.03	0.29	0.02	0.03	0.95	0.25
	(0.20)	(0.21)		(0.21)	(0.21)		
Missed a due payment (=1)	0.01	0.01	0.79	-0.02	0.04	0.22	0.45
	(0.46)	(0.48)		(0.49)	(0.47)		
Got a new loan (=1)	0.01	0.01	0.94	0.03	0.00	0.41	0.81
	(0.45)	(0.47)		(0.48)	(0.46)		
Number of observations	387	648	1,035	248	400	648	787

See notes from Table 2 for additional information.

Appendix Table 9: Contract and Selection Effects in Default for Borrowers Who Got Loans At FMSD Promotional Events

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Standard Contract	Flexible Contract (Pooling Offer Types)	Overall Comparison	No-Surprise Flexible Contract	Surprise Flexible Contract	Selection Effect	Contract Effect
	Std→Std	Std→Flex & Flex→Flex	Std Contract = Flex Contract	Flex→Flex	Std→Flex	Flex→Flex = Std→Flex	Std→Std = Std→Flex
			(1)=(2)			(4)=(5)	(1)=(5)
Dependent variable	Mean (SD)	Mean (SD)	p-value	Mean (SD)	Mean (SD)	p-value	p-value
Panel A: Default, unadjusted							
Proportion of principal in default at 3 months post maturity	0.10	0.14	0.01	0.15	0.14	0.72	0.04
	(0.18)	(0.22)		(0.23)	(0.23)		
Proportion of principal in default at 12 months post maturity	0.08	0.11	0.05	0.11	0.11	0.71	0.06
	(0.17)	(0.21)		(0.19)	(0.22)		
Missed a due payment (=1)	0.53	0.56	0.54	0.60	0.54	0.39	0.85
	(0.50)	(0.50)		(0.49)	(0.50)		
Got a new loan (=1)	0.36	0.35	0.75	0.35	0.25	0.87	0.75
	(0.48)	(0.48)		(0.48)	(0.48)		
Number of observations	204	327	531	106	211	327	425
Panel B: Default, residuals after predicting default with observables							
Proportion of principal in default at 3 months post maturity	0.00	0.05	0.02	0.05	0.04	0.82	0.05
	(0.18)	(0.22)		(0.21)	(0.22)		
Proportion of principal in default at 12 months post maturity	0.00	0.03	0.09	0.03	0.04	0.59	0.08
	(0.16)	(0.20)		(0.19)	(0.21)		
Missed a due payment (=1)	0.04	0.05	0.97	0.08	0.04	0.54	0.92
	(0.49)	(0.49)		(0.48)	(0.49)		
Got a new loan (=1)	-0.03	-0.04	0.94	-0.04	-0.04	0.89	0.85
	(0.48)	(0.47)		(0.47)	(0.47)		
Number of observations	204	327	531	106	211	327	425

See notes from Table 2 for additional information.

Appendix Table 10: Contract and Selection Effects in Default for Borrowers Who Got Loans At FMSD Branches

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Standard Contract	Flexible Contract (Pooling Offer Types)	Overall Comparison	No-Surprise Flexible Contract	Surprise Flexible Contract	Selection Effect	Contract Effect
	Std→Std	Std→Flex & Flex→Flex	Std Contract = Flex Contract	Flex→Flex	Std→Flex	Flex→Flex = Std→Flex	Std→Std = Std→Flex
			(1)=(2)			(4)=(5)	(1)=(5)
Dependent variable	Mean (SD)	Mean (SD)	p-value	Mean (SD)	Mean (SD)	p-value	p-value
Panel A: Default, unadjusted							
Proportion of principal in default at 3 months post maturity	0.12	0.16	0.00	0.16	0.16	0.75	0.03
	(0.21)	(0.24)		(0.24)	(0.24)		
Proportion of principal in default at 12 months post maturity	0.10	0.12	0.01	0.13	0.12	0.52	0.13
	(0.20)	(0.22)		(0.22)	(0.21)		
Missed a due payment (=1)	0.58	0.64	0.03	0.64	0.64	0.31	0.15
	(0.49)	(0.48)		(0.48)	(0.48)		
Got a new loan (=1)	0.32	0.31	0.70	0.29	0.32	0.12	0.76
	(0.47)	(0.46)		(0.45)	(0.47)		
Number of observations	331	578	909	228	350	578	681
Panel B: Default, residuals after predicting default with observables							
Proportion of principal in default at 3 months post maturity	-0.02	0.03	0.00	0.02	0.03	0.92	0.01
	(0.20)	(0.23)		(0.23)	(0.23)		
Proportion of principal in default at 12 months post maturity	-0.01	0.02	0.01	0.02	0.02	0.65	0.06
	(0.19)	(0.21)		(0.21)	(0.21)		
Missed a due payment (=1)	-0.04	0.01	0.04	0.02	0.02	0.50	0.15
	(0.47)	(0.48)		(0.49)	(0.48)		
Got a new loan (=1)	0.01	-0.01	0.59	-0.03	0.00	0.23	0.94
	(0.44)	(0.46)		(0.45)	(0.47)		
Number of observations	331	578	909	228	350	578	681

See notes from Table 2 for additional information.