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# **Long Run Effects of Repayment Flexibility in Microfinance**

Evidence from India



## **In brief**

- The rapid growth of micro-loans has prompted some governments to increase oversight and regulation. Our project informs governments' policy decisions on both repayment structure and interest rate requirements by illuminating the potential benefits and costs of various options. The results also help practitioners shape the next generation of products that may deliver benefit while maintaining their own long-term viability.

### **Key Results and Policy Implications:**

- **Allowing clients a grace period before repayment can help them invest a greater part of their loan into more profitable activities** - Clients allowed a 2-month grace period before beginning repayment invested nearly 9.4% more of their loan amount into their businesses compared to standard repayment schedule clients. Grace period clients reported weekly profits that were 30% higher on average than those without the grace period.
- **Allowing a grace period before repayment raises default rates** - The grace period allowed clients to invest in business activities that had significantly higher returns on investment, but that also carried greater risks. The default rate on loans was higher among grace period clients. The variance of profits was significantly larger among grace-period clients, implying that these clients invested with greater risk and rewards than traditional clients.
- **Grace period before repayment involves benefits and costs** - Regulators and microfinance practitioners should recognize that greater repayment flexibility involves benefits and costs. Allowing a grace period before repayment, for example, permits clients to make larger investments that produce greater profit and raise household income. It can also raise the default rate, increasing costs to the MFI. A potential solution may be to offer a set of loan products with more flexible repayment schedules and higher interest rates while retaining current loan products with a traditional repayment schedule and lower interest rate.

## Policy Motivation

*“Our project investigates the benefits and costs of introducing a two-month grace period into the classic repayment structure of microfinance institution loans”*

As governments decide on the optimal regulation for the microfinance sector, key questions include the appropriate interest rate and repayment structure. Our project investigates the benefits and costs of introducing a two-month grace period into the classic repayment structure of MFI (microfinance institution) loans, which require small installments starting immediately after loan disbursement.

## Project Summary

The study builds on an innovative field experiment conducted in 2007-2008: Clients were randomly assigned to either receive the standard MFI loan product with repayments starting immediately after disbursement or a loan product in which the liquidity demands imposed on households early in the loan cycle were relaxed by giving them a two-month grace period before starting repayment. Our research helps inform policy in the MFI field by either ruling out a natural possible alternative loan contract or providing support for offering a mix of products that includes both lower interest rate contracts with rigid repayment requirements and higher interest rate contracts with flexible repayment schedules.

We partnered with a MFI called Village Financial Services (VFS) based in Kolkata, India to conduct our research. Out of 845 clients, we randomly assigned half to receive the typical microfinance loan, with repayment starting almost immediately after loan disbursement, and the other half having a two-month grace period before commencing repayment. Using this randomized experimental design allowed us to measure the impact of the grace period on client outcomes with minimal bias. We surveyed clients at the beginning of the loan as well as after the loan cycle finished, asking questions about a range of topics including household income and business activities. Two years after the end of the loan cycle, we administered another survey focused on client business revenues, costs, and profits. Using these surveys and administrative data from VFS, we were able to measure the impact of the grace period on business investment, business profits, household income and default rates.

Using regression analysis, we establish that the shift to a grace period contract increased clients' business investments in the short run and profits and income in the long run, but also their rate of default, indicating a shift toward investments with higher average, but also more variable, returns.

*“Clients who were allowed a 2-month grace period before beginning repayment invested nearly 9.4% more of their loan amount into their businesses”*

## Project Findings

**Allowing clients a grace period before they begin repayment can help them invest a greater part of their loan into more profitable business activities**

Our randomized experiment shows that clients who were allowed a two-month grace period before beginning repayment invested nearly 9.4% more of their loan amount into their businesses compared to clients who were given the standard microfinance repayment schedule. Clients with the grace period also reported

weekly profits from their businesses that were 30% higher on average than those without the grace period. This contributed to household incomes that were on average 16-19% higher for grace period clients.

### **Allowing a grace period also raises default rates**

*“The default rate on microfinance loans was higher among grace period clients: approximately 7% compared to 2% among clients without the grace period”*

Our research suggests that the grace period allowed microfinance clients to invest in business activities that had significantly higher returns on investment, but that also carried greater risks. Partly driven by this increased exposure to business risk, the default rate on microfinance loans was higher among grace period clients: approximately 7% compared to 2% among clients without the grace period. We found that not only the level but also the variance of profits were significantly larger among grace-period clients, which supports the interpretation that these clients invested with both greater risk and rewards than traditional microfinance clients.

### **Grace period before repayment involves both benefits and costs**

Both government regulators and microfinance practitioners should recognize from these results that greater flexibility in repayment involves both potential benefits and costs to MFIs and clients. On one hand, allowing a grace period before repayment seems to allow clients to make larger investments that produce greater levels of profit and raise household income. On the other hand, the grace period also raises the default rate significantly, increasing costs to the MFI. A potential solution to achieve a better outcome for both MFIs and clients may be to offer a set of loan products with more flexible repayment schedules and higher interest rates while also retaining the current loan products with a traditional repayment schedule and lower interest rate.

To assess the extent to which this is feasible, we need to look beyond the simple default rates. Since many of the grace period clients only stopped paying their loans towards the end of the contract, one year after the loan due date, grace period clients owed an additional 138 Rs. out of an average principal plus interest size of 8,250 Rs. In other words, grace period clients defaulted on an additional 1.7% more of the loan than control clients.

*“Grace period clients defaulted on an additional 1.7% more of the loan than control clients”*

### **Implementation**

Bankers and policy-makers should consider the potential costs and benefits associated with greater flexibility of repayment schedules for both MFIs and clients. Although the results of this study may suggest that more flexible repayment schedules confer only benefits to microfinance clients, imposing repayment schedules and interest rates that are unsustainable for MFIs in the long-run could cause them to shut down, thereby decreasing the amount of credit accessible to the poor in developing countries.

Our findings are useful in interpreting two recent recommendations made by the Malegam Committee Report on microfinance, recently released by the Reserve Bank of India. Firstly, the report recommends a moratorium period between loan disbursement and start of repayment that is at least as long as the

payment frequency. The report acknowledges that inadequate time between loan disbursement and the start of repayment may limit clients' ability to invest their loans in profitable business opportunities, and it encourages MFIs to institute a more reasonable length of time between loan disbursement and the start of repayment. Secondly, the report recommends setting a "margin cap" on interest rates at 10% above cost of funds for larger MFIs and at 12% above cost of funds for smaller MFIs. It also proposes an overall interest rate cap of 24% on individual loans. Taken together, these recommendations may limit the sustainability of MFIs. In particular, they would potentially increase default without allowing MFIs to raise interest rates.

## Further Readings

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## About the authors

*Erica Field* joined the Duke faculty as an Associate Professor in 2011. She is also a faculty research fellow at the National Bureau of Economic Research. Professor Field received her Ph.D. and M.A. in economics from Princeton University in 2003 and her B.A. in economics and Latin American studies from Vassar College in 1996. Since receiving her doctorate, she has worked at Princeton, Stanford, and most recently Harvard, where she was a professor for six years before coming to Duke.

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