FLEXIBILITY IN MICROFINANCE LOAN CONTRACTS

Research Brief for Practitioners and Policymakers

December 2018

By Asmita Chatterjee & Devarchan Banerjee

Microfinance institutions typically offer group loan and individual loan products that have standardized repayment structures. These reduce transaction costs, simplify product complexity and ensures repayment discipline amongst borrowers. The repayment schedules of these loan products are characterized by early commencement of the instalments, wherein the first instalment can be anytime between one week to one month after the disbursement of loan. While a fixed and predefined repayment schedule helps the process of collection for the lending institutions and the mental accounting for borrowers, it also poses a problem when there are volatilities in the value and timings of the cash flow in the household due to seasonal activities, business cycle stages, health shocks and other factors. To put a layer of rigidity on an otherwise volatile cash flow can aggravate the liquidity position of the household. The fixed repayment schedule can affect investment choices and discourage projects that take longer to realize returns. This note discusses the scope of flexible loan contracts and presents several options on how flexibility can be introduced into these loan contracts, with some evidence from the literature.

Some approaches to introducing flexibility in loan contracts

- **Flexible timing** – Allowing the borrower to pick between a monthly, weekly or fortnightly repayment schedule for his/her loan tenure.
- **Flexible instalments** - Introducing a variable instalment schedule that matches the cash surplus and deficit positions of the household.
- **One-time moratorium** - Letting a borrower choose a repayment holiday for a specific period. The timing of this moratorium can either be pre-decided or chosen by the borrower providing greater agency to the borrower.
- **Prepayment** - Allow borrowers to prepay their loans in part or whole before the maturity date.
- **Line of credit** - A standing line of credit that a borrower can use as and when needed, and the interest is payable on the amount withdrawn.

CONTEXT

The innovation by Professor Muhamad Yunus of a joint liability microcredit contract introduced the concept of the creditworthiness of the poor with peer network as social collateral. It was believed that the access to formalized credit would unlock the entrepreneurial potential of the poor and be an effective tool against poverty. By 2006, with the Nobel Prize to Dr. Yunus and the Grameen Bank, the idea of microcredit as an instrument for poverty reduction and socioeconomic development was affirmed. The added advantage of the model's business feasibility led to an explosion of entities offering microfinance products, specifically microcredit, across the developing world. India then showed a particularly strong appetite for microfinance. Twelve years hence, the process has not slowed. In 2015-2016, the microfinance industry in India saw a 45% increase in the number of loans disbursed (*Inclusive Finance India Report 2016*).

This Research Brief aims to discuss a few approaches that microfinance providers can take to introduce flexibility in their loan contracts in a way that is suitable for the customer segments they serve and is responsive to specific business cycles and risk capacity. In the first section below, we aim to put forth the rationale that was in place for rigidity in microfinance. In the second section, we examine the relationship between lack of flexibility and the constraints in the choices made by borrowers. The third section presents some approaches that microfinance providers can take to introduce varying degrees of flexibility. In the last section, we discuss some supply side concerns in implementation.

The Rationale for Rigidity

A typical microfinance loan contract has a fixed frequency repayment schedule as its core feature, along with peer enforcement and peer liability for joint liability products. The repayment is through monthly, weekly, fortnightly or even daily repayments which usually begin immediately after the loan is disbursed. Fixed repayment schedules can help borrowers with mental accounting, as well as make it easy for collections by field staff.

The practice of starting the repayment early, sometimes as early as the first week, is said to be adopted to reduce the default risk in these uncollateralized loans offered by microfinance providers (Armendariz and Morduch, 2010). If there is a possibility that the loan may not be repaid, the provider can minimize the loss by acting on early indicators of default. There is also a case to say that this helps the customer in repaying the debt faster and does not burden her with trying to save a larger sum across a longer period. Frequent repayments can help present biased borrowers who face difficulties in saving (Tsukada, 2014). Rigidity in a microfinance contract has been one of the bulwarks of the microcredit model and has been widely regarded as being one of the reasons for high repayment rates and the corresponding business feasibility of providers.

The Case for Flexibility

Many occupations in a rural economy have seasonal income and are prone to exogenous shocks which are often not insured against. In such circumstances, microfinance providers can step in to help design credit products that suit the volatility in the cashflows of the client. In urban areas, financial institutions provide educational loans with moratorium till the student is employed and is earning to begin her repayment cycle. Some providers offer flexible home loans wherein only interest is repaid in the first few instalments, and the repayment amounts are stepped up in later periods[1].

Seasonality of income and consumption

Khandker (2012) notes that for a household, seasonality in income often translates to seasonality in consumption. The study observed a decline in pre-harvest income and a sharp fall in food consumption. A rigid repayment schedule can also worsen the cash flow management within a household. Low income households are more prone to shocks or events like illness, loss of crop or livestock or social obligations but have constrained resources to cope with these shocks (Collins et al., 2010 and Prathap 2016). A health shock not only impacts the income of the household (Fafchamps, 2014), but also increases the expenses thereby doubly impacting the liquidity position of the household that is severely affected.

---

[1] Based on information retrieved from State Bank of India website https://www.sbi.co.in/portal/web/studentplatform/repayment on August 23, 2018 and Indian Banking Association guidelines retrieved http://www.iba.org.in/Documents/Educational-Loan-Scheme-2015-[Amended-2016].pdf on August 23, 2018

Business investments

A standardized loan contract makes it difficult for the borrower to utilize the product for a productive purpose since the immediate liquidity requirement for repayment restricts the kinds of business investments that can be undertaken. The early stages of an entrepreneurial investment may not generate the kind of returns required to repay the first few instalments. Some borrowers said that they kept aside a part of their loan amount just to meet the first instalments (Field et. al., 2013). The commencement of an early repayment restricts the amount that a borrower can invest in relatively long term and illiquid investments, like shop inventories (Barboni & Agarwal, 2017; Box 2). The study found that in those branches where clients could choose a three-month repayment 'holiday', they had a lower delinquency rate than the control branches; and one year later, clients who took up the flexible loan that was offered at a higher interest rate had higher sales and inventory purchases. Rigid repayment schedules place a demand for a fixed cash outflow from a volatile income. Neither the amount nor the frequency of repayment is responsive to the circumstances of the household, and is agnostic to the situation of the household.

Rigidity of the contract constrains business growth and introducing a moratorium on the repayment period demonstrated a significant increase in business activity and income (Field et. al, 2013; Box 1). The same study however found an increase in the rate of defaults. This suggests a tradeoff between flexibility and the rate of repayment, and provides an economic justification for the rigid microfinance contract widely adopted by the industry.

Repayment Frequency and Stress

Frequent repayment is believed to maintain repayment discipline amongst microfinance borrowers. Weekly repayments are common industry standards. One of the reasons could be that, given the absence of efficient savings mechanisms available to low-income households, they find it difficult to accumulate a relatively larger sum across a relatively longer duration required in a monthly repayment schedule. However, a study by Field et. al (2008) found no significant difference in default rates amongst first time borrowers of weekly and monthly repayment schedules. Another study by three of the same authors finds that *ceteris paribus*, individual loan borrowers who were on a monthly repayment schedule were 51% less likely to report feeling "worried, tense and anxious" about repaying and 54% were more confident about being able to repay (Field et. al, 2012). Some established entrepreneurs taking a loan to meet working capital requirements would probably benefit from a more frequent daily repayment of small amounts from everyday business earnings.

Role of financial intermediaries

According to traditional theories, the existence of high transaction costs and information asymmetry made intermediaries a necessity to serve customers for them to benefit from the functions of finance. The presence of intermediaries can reduce information asymmetry. When microfinance providers offer standardized products, they do not adequately leverage the information available to them.

In the initial days of the microfinance, there was a case to carry out strict weekly repayments to build the system of peer enforcement and peer monitoring. However, three decades later, when the clients understand the basic functioning of microfinance institutions, steps can be taken to offer more innovative products that match the requirements of the borrowers.

How can providers design a flexible loan contract?

There are several ways to incorporate flexibility in a microcredit contract. The table below describes different features or interventions introduced that represent varying degrees of flexibility in repayment of a microfinance loan.

Approaches to flexible loan contracts	Product design	Borrower segments	Implementation challenges	Evidence of testing
Flexibility in repayment frequency	Allow the borrower to choose repayment frequency that is suited to their income frequency	Entrepreneurs who want to match the seasonality of earnings with repayment frequency		Field and Pande (2008)
	Allow the borrower to pause repayment on principal and pay only interest for certain time periods chosen by the borrower	Households engaged in dairy farming	Tracking of repayment pauses for loan officers	Czura(2015)
Variable instalments	The schedule can be decided such that the borrower can choose to pay more (less) when there is an expected cash inflow (outflow)	Borrowers engaged in volatile/seasonal employment activities	Mental accounting for the borrower with regards to the amount to be paid in each period and the balance left	Grameen II
Repayment holiday	Allowing a one-time moratorium to borrowers who choose to make illiquid and high-ticket investments into their businesses. Timing can either be chosen by the borrower (for unforeseen shocks) or by the provider.	Entrepreneurs, borrowers engaged in agriculture	Transaction and operational costs of accounting for each borrower’s loan account, as the account will be tracked separately based on the repayment holiday	Barboni and Agarwal (2017)
Prepayment in part or whole	Letting borrowers pay the loan in part or whole before the maturity date, subject to a	No specific borrower segment	Clarity and transparency of the amount to be repaid and due accounting	Grameen II

	proportionate and minimum interest rate		of the same into the system	
Standing line of credit	Keeping ready a standing line of credit that a customer can avail as and when required, with interest chargeable only on amount withdrawn	Borrowers in need of small ticket loans for working capital requirements	Transaction costs pertaining to multiple withdrawals	RFIP for Mann Deshi (2015)

CONCERNS

Introducing flexibility involves a certain amount of added complexity to the operations. The field staff is required to be trained to account for different repayment transactions for different stages of the tenor. Extra precaution may be needed for features such as variable instalments and transparent reporting of the amounts repaid should be undertaken. Several measures can be adopted to overcome some of these challenges, such as ex-ante recording of the variable repayment schedule that the borrower decides. These measures will add to the cost of operations for a provider. As mentioned earlier, a study also showed an increase in the default rates for borrowers who were given a moratorium (Field, et. al, 2009, see box). But allowing borrowers to self-select a higher-priced flexible loan product led to positive outcomes for the customers (Barboni and Agarwal, 2017, see box). Depending on the specifics of product design, providers can choose to price the flexibility option into the contract. At some added costs, microfinance providers can innovate to bring new product features that can help their borrowers in leveraging funds to optimize their entrepreneurial activities.

CONCLUSION

The objective of microfinance has been to provide the full suite of services to low-income households. These households suffer from frequent income shocks that adversely affect their liquidity position. Many occupations also have seasonal income that generate variable returns through the year. Introducing flexibility in microcredit products will take us one step closer to fulfilling the goals of microfinance. Flexibility in repayment can be achieved through measures such as instalments that match the cashflows of the customers or by offering a priced-in-moratorium for business loans such that entrepreneurs can use the grace period to make more illiquid, larger business investments. The additional costs of such features can be priced into these products, that can be made available to the customers alongside the robust joint liability group loans. This paper aimed to present the evidence available and synthesize the different ideas to bring in flexibility in repayment. Providers can further innovate product designs that better suit their customer segments. Also, it is important to note that more supplementary research can be undertaken to measure the impact of all such interventions on borrower and supplier outcomes.

CASE STUDIES

Box 1

In 2009 Rohini Pandey and Erica Field conducted an experimental study in West Bengal, India, which measured the impact of a repayment delay/grace/moratorium on entrepreneurial behaviour and default rates. The treatment group, which had 84 five-membered borrower groups, was given a two-month moratorium on their first repayment while the control group with 85 borrower groups continued with the standard microfinance contract which had immediate repayments.

The study demonstrated that:

- The business investment was 8% higher in the treatment group
- Disaggregating business expenditure revealed that there was a higher percentage of spending on illiquid assets, specifically in the form of unprocessed raw materials.
- Significantly, the likelihood of the client starting a new business was doubled in the treatment group.
- Risk averse clients showed a higher increase in business investment in response to the moratorium period.
- 16 weeks after the due date, 3% of control and 11% of treatment borrowers had failed to repay.

Ideally, by reducing liquidity needs in the early phase of repayment cycle, the intervention enhances the client's ability to take on more illiquid investments in their businesses which should earn them a higher profit and therefore increase repayment.

However, the authors posit that the hypothesis assumes that the illiquid business investment does not have risk associated with it, and that illiquid business investments in microenterprises are subject to significant risks and variability of returns.

Box 2

A study by Barboni and Agarwal (2017) found encouraging effects of offering flexible options to customers. In treatment branches, successful loan applicants were offered a choice of a flexible contract, where, borrowers could choose between a 3-month repayment holiday each year at 26% APR and higher EMI or a standard rigid contract at 24%. In the control group, the flexible option was not provided.

To prevent misuse of the option, the terms of the flexible contract were carefully designed thus: the APR for flexible contract is higher, and even during the repayment holiday, borrowers must pay a monthly flexibility fee. The results were as follows,

- Approximately 32% in treatment branches chose the flexible contract. Higher stock purchases during festivals, higher weekly sales and lower delinquency in treatment branches were observed in the treatment group one year later. The flexible contract seems to give business borrowers control over seasonality.
- Those who chose the flexible contract were more risk-loving, time-consistent and tallied their enterprise budgets more frequently than those who chose the rigid contract.

By offering a choice of a slightly more-expensive flexible choice, the provider triggers an efficient self-selection mechanism that leverages borrowers' own soft information about their entrepreneurial ability and business profitability.

Box 3

After the severe floods of 1998 which adversely affected the repayment capacity of their clients, Grameen Bank in Bangladesh introduced Grameen II (Grameen Generalised System). Rigidity in the loan repayment schedule was identified as one of the key vulnerabilities and new flexible product options were offered. Some of the features of the Grameen II include 'top-up loans', 'flexi-loan', and withdrawal of savings accounts (Rutherford, 2004).

A top-up loan allows the clients to re-borrow the amount they have repaid at the end of half of the tenure. A flexi-loan is a basic loan which is rescheduled only when a borrower fails to repay for ten consecutive weeks or fails to deposit into the pension deposit for four months.

Under Grameen II, all the previous general loans were converted into basic loans. The repayment of a basic loan is undertaken weekly, but the amounts to be paid in every week could vary according to the capacity or choice of the borrower. They can also prepay the whole loan or a part of it at any time during the loan term.

However, it was observed that while features of Grameen II were adopted on the field and conversion of loans into 'basic loans' was complete at the end of four years, flexibility of varying loan instalments had still not taken off (Rutherford, 2004).

The branch staff did not encourage the uptake of flexi-loans and preferred to follow the existing pattern of loan repayments. They did however promote the top-up feature if a borrower is unable to repay any instalment.

REFERENCES

Armendáriz, B., & Morduch, J. (2010). *The economics of microfinance*. MIT press.

Banerjee, A., Karlan, D., & Zinman, J. (2015). Six randomized evaluations of microcredit: Introduction and further steps. *American Economic Journal: Applied Economics*, *7*(1), 1-21.

Barboni, G., & Agarwal, P. (2017). Knowing what's good for you: Can a repayment flexibility option in microfinance contracts improve repayment rates and business outcomes?

Czura, K. (2015). Do flexible repayment schedules improve the impact of microcredit? Evidence from a randomized evaluation in rural India.

Field, E., & Pande, R. (2008). Repayment frequency and default in microfinance: evidence from India. *Journal of the European Economic Association*, *6*(2-3), 501-509.

Field, E., Pande, R., Papp, J., & Park, Y. J. (2012). Repayment flexibility can reduce financial stress: Experimental evidence from microfinance in India. *PLoS One*, *7*(9), e45679.

Field, E., Pande, R., Papp, J., & Rigol, N. (2013). Does the classic microfinance model discourage entrepreneurship among the poor? Experimental evidence from India. *American Economic Review*, *103*(6), 2196-2226.

Fischer, G., & Ghatak, M. (2010). Repayment frequency in microfinance contracts with present-biased borrowers.

Karlan, D. S., & Zinman, J. (2009). Expanding microenterprise credit access: Using randomized supply decisions to estimate the impacts in Manila.

Khandker, S. R. (2012). Seasonality of income and poverty in Bangladesh. *Journal of Development Economics*, *97*(2), 244-256.

Khandker, S. R., Khalily, M. B. & Samad, H. A. (2010). *Seasonal and extreme poverty in Bangladesh: evaluating an ultra-poor microfinance project*. The World Bank.

Prathap, V., & Khaitan, R. (2016). When Is Microcredit Unsuitable?. CGAP Working Paper.

Marcel Fafchamps, (2014). "Credit Constraints, Collateral and Lending to the Poor," Revue d'économie du développement, De Boeck Université, vol. 22(HS01), pages 71-89.

Rural Financial Institutions Programme (RFIP) and GIZ (2015). Impact assessment of the mann DeshI mahIla Bank project.

Rutherford, S., Maniruzzaman, M. D., & Sinha, S. K. (2004). GRAMEEN II At the end of 2003: A 'grounded view'of how Grameen's new initiative is progressing in the villages. *Microsave paper*.

Rutherford, S. (2006). What is Grameen II? Is it up and running in the field yet?. *MicroSave Briefing Notes on Grameen II*, *1*.

Sriram, M. S. (2017). *Inclusive Finance India Report 2016*. Sage Publications India Pvt Ltd.

Tsukada, K. (2014). Microcredit revisited: Towards more flexible loan contracts. In *Seasonality and Microcredit* (pp. 9-19). Springer, Tokyo.

Yunus, M. (2002). Grameen Bank II: designed to open new possibilities. *Grameen Dialogue*, *50*.