When Loan Defaults Get Contagious

As the borrowers' actions snowball, they can lead to the collapse of an entire microfinance program, sometimes even an entire institution.

Two suspects arrested by the police are offered the same deal. If one testifies against the other and the other remains silent, the betrayer goes free and the silent accomplice receives a 10-year sentence. If both prisoners remain silent, they are sentenced to only six months in jail, but if both of them betray each other, they receive a five-year sentence. How will the prisoners act?

Most of us are aware of the prisoner's dilemma, a scenario used to explain the game-theory approach in economics. It demonstrates how, under mutually dependent situations, people unaware of each other's actions often end up selecting a sub-optimal choice, even though each player's individual reward would be greater if they both played cooperatively.

A similar scenario when played out in the microfinance sector has been referred to as a "borrower run." The term was coined by Philip Bond, Assistant Professor of Finance, University of Pennsylvania, and Ashok S. Rai, Associate Professor of Economics, Williams College, in their paper by the same name. Their theory is based on the fact that MFIs induce their borrowers to repay by using the promise of future loans as an incentive.

Borrower runs are induced by an assumed breakdown in faith in the viability of the MFI, and borrowers decide against repaying their loans, even though they would be better off, as a group, if they could avoid this panic and repay their loans. Borrower runs stem from coordination failures among clients and weaken repayment incentives and impact the overall welfare of borrowers.

Context Matters

Are borrower runs typical of some regions and some cultural groups? Julia Paxton, Associate Professor of Economics at the University of Ohio says, "Clearly, context matters."

"Some of the initial appeal of group lending was that it empowered very poor women, particularly in Asia, who had not

had access to financial intermediation," she says. The presence of other group members provided "psychic benefits"[1] to individuals in marginalized groups. But she adds that, "These benefits were less relevant when applied to dynamic urban markets in Latin America and Africa, where clients were not interested in these psychic benefits, but merely wanted financial services without being jointly liable for other loans."

The size of the group also plays an important role in its sustainability. It has been observed that large self-help groups (SHGs) found in India or in the village banking networks of Latin America can weaken the strength of the group due to information asymmetries. It becomes difficult to monitor individual member activity and to prevent other group members, when one borrower defaults. Smaller, more homogeneous groups have the benefit of peer pressure and social solidarity that can positively influence repayment. However, as Paxton explains, "Groups that are too homogenous face problems of covariant risk.[2] In some African villages, each group member may be part of the same family and a shock hits the entire group simultaneously, making repayment impossible."

As Borrower Runs Snowball

Often, as word spreads that a borrower has defaulted on his loan, others in the group tend to assume that their actions will make little additional difference to the viability of the microfinance institution. However, in practice, as the borrowers' actions snowball, they can lead to the collapse of an entire microfinance program, sometimes even an entire institution.

Gert van Maanen, former Managing Director of Oikocredit, explains the vicious cycle of repayment failure and sustainability of an MFI in his paper "Microcredit: Sound Business or Development Instrument." An MFI's viability, he writes, depends on the repayment habits of its clients. On the other hand, a borrower's willingness to repay is governed by the ability of an MFI to sustain itself.

If the repayment rate is less than 100%, the interest rate to be charged must be higher to cover such a loss. The painful reality is that loyal clients have to make up for the loss and are charged for others' lack of loyalty.

If the percentage sinks below, say, 90%, a growing number of clients could be tempted to join the 10% who seem to get away with non-payment. Such a trend can erode a well-functioning MFI within months, if not weeks.

Once the repayment rate sinks below 80%, it becomes very difficult to reverse the trend as more borrowers begin to think: "Why should I repay an MFI that is likely to go down? Let's wait and see what happens!"

Borrower Runs are Dangerous

As mentioned earlier, borrower runs can severely affect the viability of an MFI and undermine its credibility. Borrower runs also compel MFIs to either disburse smaller loans or charge higher interest rates, Bond and Rai say.

> In dynamic urban markets in Latin America and Africa, clients are not interested in psychic benefits, but merely want financial services without being jointly liable for other loans.

"Borrower runs make microlending more difficult and less efficient. In particular, MFIs may end up wasting resources in trying to convince borrowers of their viability." The institution may withstand one borrower defaulting on his loan, but as the problem grows, the whole group can fall apart.

Paxton points out, "Repayment in groups of the Grameen replication Projet de Promotion du Petit Crédit Rural (PPPCR) declined over time as a matching problem (diverging coincidence of demand for loan amounts, terms, and conditions among all group members) occurred. Ultimately, the domino effect led to widespread default in certain villages and led to the collapse of the entire MFI."

In the case of Childreach[3] in Ecuador, Rai and Bond note, "The number of residents defaulting on loans multiplied as the word spread that only a few people were paying, and that what had been repaid was being pilfered by community leaders in at least a quarter of the communities, and that Childreach was taking little action." Since the very survival of Childreach was debatable, defaulting became more attractive for borrowers.

What Can MFIs Do to Prevent Borrower Runs?

Bond and Rai mention that there are two key ways in which MFIs can counter borrower runs. First, they can make loans that are more profitable, thereby increasing the value of future financial access to borrowers who repay. In particular, MFIs can offer exclusive loans to borrowers who repay even when most others do not. Second, the MFI can lower the repayment required on its loan. It has been observed in practice that MFIs will always use at least one of these two repayment incentives in response to borrower runs.

In the case of group lending, if the borrowers in a group are not well acquainted with each other, peer pressure and group solidarity are weakened.

So, group formation requires special attention. Paxton concludes, "As the microfinance industry evolves, it is finding creative ways of maintaining groups but eliminating joint liability and is allowing for individual loans channeled through groups that are better catered to the demand of the individual client." ■

- By Vibha Mehta, Associate, Intellecap

1. Group credit provides women with self-esteem, mutual trust, and empowerment. For more on psychic benefits, see Goldberg, M. And Hunte, P. "Financial Services for the Poor: Lessons on Group Based Models from Five South Asian NGO's" presentation for Conference on Finance against Poverty, University of Reading, England, March 1995.
2. When events are not independent, the occurrence of one may affect the occurrence of another, e.g. one borrower defaulting on his loans can cause to do the same.
3. Childreach is the U.S. member of Plan, a global, non-profit, child-centered development organization helping needy children and their families in developing countries. For more on Childreach, see www.childreach.org