

Microfinance Experience Series

Recommendations for Profitable Growth

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Four Risks That Must Be Managed By Microfinance Institutions

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For microfinance institutions (MFIs), risk management is a daily part of business, whether the institution is an NGO, credit union, finance company or specialized bank. The main idea of risk management is well known—that *risk levels should be directly proportional to expected returns*—and this concept can be applied in analyzing high-risk, high-return ventures as well as more conservative ones. MFIs, however, like most financial institutions, tend to be relatively risk-averse, preferring less risk and therefore less return. Control and reduction of risk is a constant priority.

The first step in reducing risks is to identify and quantify them. MFI managers are good at managing credit risk and, indeed, portfolio-at-risk measurements have gained wide acceptance. But MFIs face a number of even greater risks that are not always well understood. Four lesser-known risks confronting most MFIs every day are highlighted here and some tactics are suggested for managing them.

1. How Risky is Your Bank?

All financial institutions use other financial institutions for services, and MFIs are no exception. MFIs maintain accounts in commercial banks and use them for money transfers, foreign exchange and other services.

What MFIs may not realize is that a banking relationship involves risk. Credit risk is broadly defined as the risk that an *obligor*—a person or institution who indebted to another—is unable or unwilling to pay.

When a MFI's bank fails, the MFI's accounts may be frozen for weeks, months, or in rare cases, forever. This not only prevents the MFI from paying salaries and expenses, it also may interrupt loan disbursements, thereby undermining the primary incentive for clients to pay back their loans.

Credit risk applies not only to microloans, but also to obligations from other counterparties, such as banks with which the MFI maintains deposits or invests funds.

MFIs invite double-trouble if the MFI clients have also been depositing funds in the same bank. In 1999, the Central Bank of Uganda closed the Co-operative Bank – the bank with the most branches in Uganda.

Many MFIs had operating accounts with the Co-op Bank and many of them had also encouraged their clients to maintain group or individual savings accounts in Co-op as well. With their savings accounts frozen, clients lost a source of repayment for their MFI loan and MFIs lacked access to their funds to make new loans. Fortunately, MFIs worked closely with the Central Bank to ensure that the banks' depositors were reimbursed, though only after many months. Most MFIs operate through one or more banks, yet few have a policy on how a bank is selected.

Some basic policies a MFI should consider:

- Select banks not only for service and price, but also for safety;
- Review your banks annually and after significant shocks;
- Involve the board in the decision on which banks to use;
- Deposit funds in more than one institution to diversify risk;
- Make sure your banks have deposit insurance, if available, and that it is sufficient to cover the MFIs accounts;
- Advise MFI clients on the soundness of banks that they use for their accounts, particularly obligatory savings accounts.

2. How Balanced are Your Assets and Liabilities?

Asset/liability management (ALM) is at the core of banking. Like banks, MFIs not only face risks by making loans to microentrepreneurs, they also take on the risk of borrowing or managing investor or donor funds. Managing the supply of funds and the demand for funds requires managing both the term and price of assets and liabilities.

Managers should be aware of any significant mismatches or gaps in the maturity dates of assets with liabilities. While banks usually try to fund loans with deposits or borrowings of approximately equal maturities, MFIs are more likely to see a higher proportion of short-maturity assets—the loan portfolio—funded by medium to longer-term liabilities. MFIs should avoid funding medium or longer-term loans with short-term liabilities.

The maturity gap calculation example in the table above shows that the MFI has successfully funded its short-term loan portfolio with longer-term borrowings. However, most deposits are payable within 90 days. This could lead to problems if clients choose to withdraw their money when the term of their deposit expires. If the reputation of the MFI and the financial sector are strong, the risk is low. If a financial or economic shock scares clients, the risk is high.

If its deposit base is unpredictable, a MFI may prefer to maintain a maturity gap of 2 or higher for assets up to 90 days.

A part of ALM is interest rate risk management. Commercial Banks' liabilities and assets are usually priced using *floating* or *variable* rather than *fixed rates*. Banks often deploy armies of analysts to improve *interest rate management* using complicated formulas and agreements known as *derivatives*. As MFIs grow and borrow, they will face the challenge of managing variable rates. Although large MFIs might consider using derivatives, most take a simpler approach.

The risk to a MFI occurs when management borrows at a rate that might float up while the MFI's loans are at a fixed rate; or when the borrowings rates remains fixed while the MFI's loan portfolio yield is falling. MFI

management must understand this risk and make sure loan and borrowing agreements allow for adjusting rates or setting *interest rate caps* or *floors*.

Some policies to consider:

- Set up an Asset Liability Management Committee consisting of both management and board members;
- Monitor the maturity gap on a regular basis by aging categories;
- Set targets and/or limits for the maturity gap ratio, particularly aging categories less than one year;
- Avoid funding long-term loans with short-term liabilities, such as deposits;
- Model the effect of interest rate changes using a simple model or *Microfin*¹;
- Allow for interest rate adjustments in loan agreements with clients;

| Example Maturity Gap Calculation (in '000) | | | | |
|--|-----------|------------|-------------|-----------|
| Account | 0-30 days | 31-90 days | 91-180 days | >180 days |
| <u>Assets</u> | | | | |
| 1. Cash | 200.00 | | | |
| 2. Investments | | 500.00 | 250.00 | |
| 3. Gross Loan Portfolio | 1,500.00 | 3,700.00 | 1,900.00 | 500.00 |
| <u>Liabilities</u> | | | | |
| 4. Accounts Payable | 140.00 | - | - | - |
| 5. Deposits | 1,000.00 | 2,500.00 | 250.00 | 350.00 |
| 6. Borrowings | 100 | 300 | 600 | 2,300.00 |
| Gap Ratio (1+2+3)/(4+5+6) | 1.37 | 1.50 | 2.53 | 0.19 |

¹ Microfin is a sophisticated Microsoft Excel spreadsheet which has been designed to assist Micro Finance Institutions in developing detailed financial projections to accompany their business plans. It can be downloaded for free at <http://www.microfin.com>

- Negotiate caps, steps, or predictable adjustments in interest rates in borrowing agreements with banks or deposit agreements with clients.

3. Do You have Foreign Currency Exposure?

Most MFIs discover they have foreign currency risk the hard way—they suffer a huge loss. Foreign currency shocks can devastate financial systems as they have from Argentina to Russia. MFIs have proven more resilient than larger banks after currency shocks not only because they have more diversified loan portfolios, but also because they tend to have less foreign currency exposure. This may change as more donors switch from grants to loans and international investors and lenders take an interest in MFIs.

The table below shows an example of a foreign currency mismatch—the MFI has greater foreign currency liabilities than assets. Should the local currency devalue, the decline in the MFIs assets value would exceed that of its liabilities making it difficult for the MFI to repay its obligations.

| Currency Mismatch Calculation (in '000) | |
|---|-------|
| | Date |
| Foreign Currency Assets | 750 |
| Foreign Currency Liabilities | 3,300 |
| Gap Ratio (1)/(2) | 0.23 |

A mismatch also results when foreign currency assets exceed foreign currency liabilities. A decline of the U.S. dollar results in losses to MFIs that have U.S. dollar assets, such as time deposits or dollar-denominated loans.

Banks have developed agreements known as foreign currency *forward contracts* which promise a certain exchange rate at an agreed upon point in the future. MFIs can and do take advantage of these instruments, but forward contracts are not readily available in many currencies. MFIs frequently have to create their own *hedge* instrument to minimize mismatches.

As an example, a MFI in Russia has a U.S. dollar loan from an international microfinance fund. Because the MFI does all of its lending in rubles, it decided to create a *hedge* to mitigate the risk. The Russian MFI negotiated a ruble loan from a local bank and deposited the proceeds of the U.S. dollar loan in a bank to be used as collateral.

The cost is high—it pays an interest rate to both the international lender and the local bank. However, it negotiated a good interest rate on its deposit with the local bank to reduce the cost.

MFI managers need to understand and quantify foreign currency risk and take some actions to minimize it. Unfortunately, foreign currency exposure is not always evident—it might be hidden in donor agreements, trust relationships, or clauses in borrowing contracts.

Some policies to consider are:

- Monitor foreign currency exposure regularly;
- Review borrower and donor agreements carefully and negotiate limitations to the MFI's liability for foreign currency fluctuations, if any;
- Maintain a set percentage of equity in cash and investments in a strong international currency;
- Use some or all of the hard currency borrowings as collateral for a local currency line of credit;
- Allow for revaluations of loan principle in loan agreements with clients.

4. Do You Have Enough Cash?

The number one reason why companies fail and banks close is a lack in liquidity. *Liquidity risk* refers to the risk that the MFI is unable to meet its obligations due to lack of cash. A lack of liquidity can be caused by either an external market force, such as the inability to raise deposits or borrow funds, or and internal failure, such as poor planning and management of cash. A commercial bank has an entire department, called a treasury department, whose primary purpose is to manage liquidity, whereas most MFIs lack even the most basic policies for liquidity management.

Sample Liquidity Target

1 Month Cash Expenses + X% Gross Loan Portfolio

A MFI in Honduras solves this problem by using one commercial bank account for all loan disbursements and collections. The MFI disburses loans by check or money transfer, drawn on a single bank account. Clients (or the MFI's branch) deposit repayments directly into this same account via the bank's branches. In this way, the MFI is aware of its daily cash balance for all of its lending operations.

Measuring liquidity is difficult because most financial ratios capture a moment in time in the past rather than a movement of cash in the future. The most basic ratio is the cash position indicator, which must be measured daily or weekly to be useful.

$$\text{Cash Position Indicator} = \frac{\text{Cash} + \text{Short-term Investments}}{\text{Assets}}$$

A more effective way is to use a dynamic indicator that forecasts the sources and uses of cash for the period. If management can construct a cash budget, then they can forecast liquidity. Managers must keep in mind, however, that changes in terms and conditions of loans and portfolio quality can significantly affect future liquidity.

$$\text{Dynamic Liquidity Ratio} = \frac{\text{Cash} + \text{Expected Cash Inflows}}{\text{Anticipated Cash Outflows}}$$

Managers should also consider the tools available to manage liquidity. *Overdraft facilities* or *revolving credit lines* are the right source of funding to address daily, weekly or monthly liquidity needs. Although banks may charge a fairly high rate of interest or a *facility fee* for these lines, the total cost of these fees is minimal compared to the cost of delaying loan disbursements.

Just as insufficient liquidity has risks, excess liquidity has a cost. The MFI should also consider what *investment instruments* are available for excess cash.

A convenient instrument is a *sweep account* through which excess cash is automatically swept from current accounts into overnight or short-term investments by the MFI's bank.

Some worthwhile policies include:

- Do a monthly cash flow statement;
- Pick a select group of liquidity indicators and monitor them frequently;
- Set a simple liquidity target and monitor it;
- Develop a forecast model to project future cash needs;
- Set a policy for investing excess liquidity in safe and appropriate instruments.

Conclusion

As MFIs grow, it is not enough just to manage credit risk and operational risks like the risk of fraud. Real risk management requires not only identifying frequent risks but also identifying those that, while unlikely to occur with great frequency, may cause high-magnitude impact when they do occur. MFI managers and board members must begin to pay attention to macro-economic and systemic trends and develop strategies to address them. If not properly addressed, any one of the four risks outlined here can run a MFI into bankruptcy.

Till Bruett has worked in commercial banking and microfinance since 1993. In 2000, he co-founded ACT, a client-oriented consulting firm that provides high-quality advisory services to the small-business and microenterprise finance industry. He specializes in financial services, management, internal controls, and evaluation. Co-author and editor of several publications on performance monitoring of MFIs, and facilitator of the SEEP Financial Services Working Group, Bruett can be reached through www.alternative-credit.com.

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